

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Airites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (214)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:38 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

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Vilandes 3-6

LV-1010 Riga

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Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Aizveji (kad. apz. 56960040532) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (170)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------------------|----------------------------|----------------------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 08:57 (C14) 09:17 (C14) | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 |
| 2 | 08:51 15:49 | 08:13 16:48 | 08:58 (C14) 09:16 (C14) | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 |
| 3 | 08:50 15:51 | 08:11 16:50 | 08:59 (C14) 09:16 (C14) | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 |
| 4 | 08:50 15:52 | 08:09 16:52 | 09:01 (C14) 09:15 (C14) | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 |
| 5 | 08:49 15:53 | 08:07 16:54 | 09:03 (C14) 09:14 (C14) | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 |
| 6 | 08:49 15:55 | 08:05 16:56 | 09:05 (C14) 09:10 (C14) | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 07:21 (C13) 07:25 (C13) | 06:33 20:06 | 05:19 21:08 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 07:18 (C13) 07:26 (C13) | 06:30 20:08 | 05:17 21:10 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 07:16 (C13) 07:28 (C13) | 06:28 20:10 | 05:15 21:12 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 07:13 (C13) 07:28 (C13) | 06:25 20:12 | 05:13 21:14 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 07:10 (C13) 07:28 (C13) | 06:22 20:14 | 05:11 21:16 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 07:08 (C13) 07:28 (C13) | 06:20 20:16 | 05:09 21:18 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 07:08 (C13) 07:28 (C13) | 06:17 20:18 | 05:07 21:20 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 07:08 (C13) 07:27 (C13) | 06:15 20:20 | 05:05 21:22 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 07:09 (C13) 07:26 (C13) | 06:12 20:22 | 05:03 21:24 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 07:09 (C13) 07:25 (C13) | 06:09 20:24 | 05:01 21:26 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 07:10 (C13) 07:23 (C13) | 06:07 20:26 | 04:59 21:27 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 07:13 (C13) 07:21 (C13) | 06:04 20:28 | 04:57 21:29 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 |
| 20 | 08:35 16:20 | 09:09 (C14) 09:11 (C14) | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 |
| 21 | 08:33 16:22 | 09:07 (C14) 09:12 (C14) | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 |
| 22 | 08:32 16:24 | 09:05 (C14) 09:13 (C14) | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 |
| 23 | 08:30 16:26 | 09:03 (C14) 09:14 (C14) | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 |
| 24 | 08:29 16:28 | 09:02 (C14) 09:15 (C14) | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 |
| 25 | 08:27 16:30 | 09:00 (C14) 09:16 (C14) | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 |
| 26 | 08:26 16:32 | 08:58 (C14) 09:17 (C14) | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 |
| 27 | 08:24 16:34 | 08:56 (C14) 09:17 (C14) | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 |
| 28 | 08:22 16:37 | 08:56 (C14) 09:17 (C14) | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 |
| 29 | 08:20 16:39 | 08:57 (C14) 09:18 (C14) | 07:11 17:47 | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 |
| 30 | 08:19 16:41 | 08:57 (C14) 09:18 (C14) | 07:10 17:49 | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 |
| 31 | 08:17 16:43 | 08:57 (C14) 09:18 (C14) | 07:09 17:51 | 06:52 19:51 | 05:37 21:51 | 04:37 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | 179 | 85 | 170 | | | |
| Sun reduction | 0.13 | 0.20 | 0.41 | | | |
| Oper. time red. | 0.98 | 0.98 | 0.98 | | | |
| Wind dir. red. | 0.59 | 0.59 | 0.62 | | | |
| Total reduction | 0.08 | 0.11 | 0.25 | | | |
| Total, real | 14 | 10 | 42 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

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Mezares_AB211223

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Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Aizveji (kad. apz. 56960040532) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (170)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | | November | December |
|---------------------|----------------|----------------|----------------|----------------------------|----|----------------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 20 | 07:47 (C13) 08:07 (C13) | 07:23 16:36 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 19 | 07:48 (C13) 08:07 (C13) | 07:25 16:34 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 16 | 07:50 (C13) 08:06 (C13) | 07:27 16:32 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 13 | 07:52 (C13) 08:05 (C13) | 07:29 16:29 |
| 5 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 10 | 07:54 (C13) 08:04 (C13) | 07:31 16:27 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 7 | 07:56 (C13) 08:02 (C13) | 07:34 16:25 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 12 | 07:58 (C13) 07:59 (C13) | 07:36 16:23 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 15 | 07:59 (C13) | 07:38 16:21 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 17 | | 07:40 16:19 |
| 10 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 18 | | 07:42 16:17 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 20 | | 07:44 16:15 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 21 | | 07:47 16:13 |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 21 | | 07:49 16:11 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 21 | | 07:51 16:09 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 21 | | 07:53 16:08 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 21 | | 07:55 16:06 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 18 | | 07:57 16:04 |
| 18 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 16 | | 07:59 16:03 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 13 | | 08:01 16:03 |
| 20 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 11 | | 08:03 16:01 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 8 | | 08:05 15:59 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 5 | | 08:07 15:58 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 2 | | 08:09 15:56 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | | | 08:11 15:55 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:57 (C13) 08:02 (C13) | | | 08:13 15:53 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:53 (C13) 08:05 (C13) | | | 08:15 15:52 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:51 (C13) 08:06 (C13) | | | 08:17 15:51 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:53 (C13) 08:07 (C13) | | | 08:19 15:50 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:49 (C13) 08:07 (C13) | | | 08:21 15:48 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:48 (C13) 08:07 (C13) | | | 08:23 15:47 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | | 08:25 15:46 |
| Potential sun hours | 529 | 469 | 385 | 324 | | 247 | 216 |
| Total, worst case | | | 86 | 85 | | 267 | |
| Sun reduction | | | 0.43 | 0.26 | | 0.08 | |
| Oper. time red. | | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | | 0.62 | 0.62 | | 0.59 | |
| Total reduction | | | 0.26 | 0.16 | | 0.05 | |
| Total, real | | | 22 | 13 | | 13 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
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Vilandes 3-6

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0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Aizveji (kad. apz. 76860060094) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (201)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Akoti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (173)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:47 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:22 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:20 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:37 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 06:24 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:36 | 07:46 18:16 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:28 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:03 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:24 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:54 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:20 18:28 | 05:59 20:32 | 04:53 21:33 | 04:24 22:10 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:24 16:34 | 07:15 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:21 | 07:13 18:59 | 07:16 16:42 | 08:20 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | 05:34 20:53 | 04:38 21:49 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Alinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (33)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:44 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:56 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:19 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:36 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:26 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Amati - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (164)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:08 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Aparnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (60)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Aramsala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (212)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:47 | 08:14 16:45 | 07:10 17:47 | 06:48 19:52 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:27 | 06:17 20:13 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:45 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:25 15:43 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:51 | 08:08 16:51 | 07:03 17:53 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:57 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:42 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:54 | 08:04 16:56 | 06:57 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:22 | 08:33 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:09 | 04:29 22:01 | 04:36 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:34 | 07:37 16:20 | 08:35 15:39 |
| 9 | 08:46 15:59 | 07:58 17:02 | 06:50 18:04 | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 04:37 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 06:24 20:11 | 05:12 21:13 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:08 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:26 22:05 | 04:41 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:12 | 08:40 15:37 |
| 13 | 08:43 16:06 | 07:49 17:11 | 06:39 18:13 | 06:16 20:17 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:41 18:21 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:06 | 04:44 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:44 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:16 | 07:52 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:33 | 07:48 18:14 | 07:54 16:05 | 08:44 15:37 |
| 17 | 08:38 16:13 | 07:40 17:20 | 06:28 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:03 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:24 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:25 | 06:01 20:30 | 04:54 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:20 18:27 | 05:59 20:32 | 04:53 21:33 | 04:24 22:09 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:10 | 04:55 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:31 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:00 17:59 | 08:07 15:55 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:25 22:10 | 04:58 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:56 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:28 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:46 21:40 | 04:25 22:10 | 05:00 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | 05:46 20:42 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:31 | 07:18 17:40 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:06 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:26 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:07 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:09 21:33 | 06:11 20:21 | 07:13 18:58 | 07:16 16:42 | 08:20 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | 05:34 20:53 | 04:38 21:49 | 04:29 22:09 | 05:11 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:50 | | 04:36 21:51 | | 05:13 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Araji - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (205)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | | April | May | June | July | August | September | | October | | November | December | |
|---------------------|----------------|----------------|----------------|------|--------------------------|----------------|----------------|----------------|----------------|----------------|-----|---------------------|----|--------------------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:27 | 06:17 20:14 | | 07:17 18:53 | 25 | 17:48 (C3) 18:13 (C3) | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:25 | 06:19 20:11 | | 07:19 18:50 | 26 | 17:47 (C3) 18:13 (C3) | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:51 | | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | | 07:21 18:48 | 25 | 17:47 (C3) 18:12 (C3) | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:51 | 08:08 16:51 | 07:03 17:54 | | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | | 07:23 18:45 | 24 | 17:48 (C3) 18:12 (C3) | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 9 | 17:18 (C3) 17:27 (C3) | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 05:23 21:19 | 06:25 20:03 | | 07:25 18:42 | 22 | 17:49 (C3) 18:11 (C3) | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:54 | 08:04 16:56 | 06:57 17:58 | 14 | 17:15 (C3) 17:29 (C3) | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 05:25 21:17 | 06:27 20:00 | | 07:27 18:40 | 20 | 17:49 (C3) 18:09 (C3) | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 18 | 17:14 (C3) 17:32 (C3) | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 05:27 21:15 | 06:29 19:58 | | 07:29 18:37 | 16 | 17:50 (C3) 18:06 (C3) | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 21 | 17:12 (C3) 17:33 (C3) | 06:30 20:07 | 05:16 21:09 | 04:29 22:01 | 05:29 21:13 | 06:31 19:55 | | 07:31 18:35 | 12 | 17:51 (C3) 18:03 (C3) | 07:37 16:20 | 08:35 15:39 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 23 | 17:11 (C3) 17:34 (C3) | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 05:31 21:10 | 06:33 19:52 | | 07:33 18:32 | 7 | 17:54 (C3) 18:01 (C3) | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 25 | 17:10 (C3) 17:35 (C3) | 06:24 20:11 | 05:12 21:13 | 04:27 22:03 | 05:33 21:08 | 06:35 19:50 | | 07:35 18:29 | | 17:55 (C3) 18:05 (C3) | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 24 | 17:10 (C3) 17:34 (C3) | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 05:35 21:06 | 06:37 19:47 | | 07:37 18:27 | | 17:56 (C3) 18:06 (C3) | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 25 | 17:09 (C3) 17:34 (C3) | 06:19 20:15 | 05:08 21:17 | 04:26 22:05 | 05:37 21:03 | 06:39 19:44 | | 07:39 18:29 | | 17:57 (C3) 18:07 (C3) | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 25 | 17:08 (C3) 17:33 (C3) | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 05:39 21:01 | 06:41 19:42 | | 07:41 18:22 | | 17:58 (C3) 18:08 (C3) | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 25 | 17:09 (C3) 17:32 (C3) | 06:14 20:20 | 05:04 21:21 | 04:25 22:06 | 05:41 21:58 | 06:43 19:39 | | 07:44 18:19 | | 17:59 (C3) 18:09 (C3) | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 23 | 17:09 (C3) 17:32 (C3) | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 05:43 21:56 | 06:45 19:36 | | 07:46 18:16 | | 18:00 (C3) 18:10 (C3) | 07:52 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 22 | 17:09 (C3) 17:31 (C3) | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 05:45 21:55 | 06:47 19:34 | | 07:48 18:14 | | 18:01 (C3) 18:11 (C3) | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:38 16:13 | 07:40 17:21 | 06:28 18:21 | 20 | 17:11 (C3) 17:31 (C3) | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 05:47 21:54 | 06:49 19:31 | | 07:50 18:11 | | 18:02 (C3) 18:12 (C3) | 07:57 16:04 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 17 | 17:12 (C3) 17:29 (C3) | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 05:49 21:52 | 06:51 19:28 | | 07:52 18:09 | | 18:03 (C3) 18:13 (C3) | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:25 | 13 | 17:13 (C3) 17:26 (C3) | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 05:51 21:51 | 06:53 19:25 | | 07:54 18:06 | | 18:04 (C3) 18:14 (C3) | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:20 18:28 | 4 | 17:18 (C3) 17:22 (C3) | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 05:53 21:49 | 06:55 19:23 | | 07:56 18:04 | | 18:05 (C3) 18:15 (C3) | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | | 05:56 20:34 | 04:51 21:34 | 04:25 22:10 | 04:25 21:48 | 05:55 20:42 | 06:57 19:20 | | 07:58 18:01 | | 18:06 (C3) 18:16 (C3) | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:25 21:46 | 05:57 20:39 | 06:59 19:17 | | 08:01 17:59 | | 18:07 (C3) 18:17 (C3) | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | | 05:51 20:38 | 04:48 21:38 | 04:25 22:10 | 04:25 21:44 | 05:59 20:37 | 07:01 19:15 | | 08:03 17:56 | | 18:08 (C3) 18:18 (C3) | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:28 16:27 | 07:23 17:36 | 06:10 18:36 | | 05:49 20:40 | 04:46 21:40 | 04:25 22:10 | 04:25 21:43 | 06:01 20:34 | 07:03 19:12 | 11 | 08:05 17:54 (C3) | | 18:09 (C3) 18:19 (C3) | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | | 05:46 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 16 | 08:07 17:53 (C3) | | 18:09 (C3) 18:19 (C3) | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 06:04 18:40 | | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 19 | 08:09 17:51 (C3) | | 18:11 (C3) 18:21 (C3) | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 22 | 08:11 17:51 (C3) | | 18:12 (C3) 18:22 (C3) | 08:17 15:49 | 08:50 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 23 | 08:13 17:49 (C3) | | 18:13 (C3) 18:23 (C3) | 08:18 15:47 | 08:51 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:09 21:33 | 06:11 20:21 | 07:13 18:58 | 24 | 08:15 17:48 (C3) | | 18:14 (C3) 18:24 (C3) | 08:20 15:45 | 08:51 15:45 |
| 30 | 08:18 16:40 | | 06:54 19:48 | | 05:34 20:53 | 04:38 21:49 | 04:29 22:09 | 05:11 21:31 | 06:13 20:19 | 07:15 18:56 | 25 | 08:17 18:13 (C3) | | 18:15 (C3) 18:25 (C3) | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:50 | | | 04:36 21:51 | | 05:13 21:29 | 06:15 20:16 | 07:20 16:38 | | | | | 08:51 15:46 | |
| Potential sun hours | 235 | 266 | 366 | | 426 | 508 | 529 | 529 | 469 | 385 | | 324 | | 247 | 216 | |
| Total, worst case | | | | 308 | | | | | | | 140 | 177 | | | | |
| Sun reduction | | | | 0.41 | | | | | | 0.43 | | 0.26 | | | | |
| Oper. time red. | | | | 0.98 | | | | | | 0.98 | | 0.98 | | | | |
| Wind dir. red. | | | | 0.65 | | | | | | 0.65 | | 0.65 | | | | |
| Total reduction | | | | 0.26 | | | | | | 0.27 | | 0.16 | | | | |
| Total, real | | | | 81 | | | | | | 38 | | 29 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Atvari - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (95)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ausekli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (109)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ausmas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (158)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|----------------|----------------|-------|-------|
| 1 | 08:51 | 08:15 | 07:11 | 07:49 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 23 08:12 (C14) | 19:53 | 20:55 |
| 2 | 08:51 | 08:13 | 07:08 | 07:49 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 22 08:11 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:50 (C14) | 06:44 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 21 08:11 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:51 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 18 08:09 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:53 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 13 08:06 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 07:56 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:57 | 17:58 | 7 08:03 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | | 06:30 | 05:17 |
| | 15:58 | 17:01 | 18:03 | | 20:08 | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | | 06:28 | 05:15 |
| | 16:00 | 17:03 | 18:05 | | 20:10 | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | | 06:25 | 05:13 |
| | 16:01 | 17:05 | 18:07 | | 20:12 | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | | 06:22 | 05:11 |
| | 16:03 | 17:08 | 18:09 | | 20:14 | 21:16 |
| 12 | 08:44 | 07:52 | 06:42 | | 06:20 | 05:09 |
| | 16:05 | 17:10 | 18:11 | | 20:16 | 21:18 |
| 13 | 08:43 | 07:50 | 06:40 | | 06:17 | 05:07 |
| | 16:06 | 17:12 | 18:13 | | 20:18 | 21:20 |
| 14 | 08:42 | 07:47 | 06:37 | | 06:15 | 05:05 |
| | 16:08 | 17:14 | 18:16 | | 20:20 | 21:22 |
| 15 | 08:41 | 07:45 | 06:34 | | 06:12 | 05:03 |
| | 16:10 | 17:17 | 18:18 | | 20:22 | 21:24 |
| 16 | 08:40 | 07:43 | 06:32 | | 06:09 | 05:01 |
| | 16:12 | 17:19 | 18:20 | | 20:24 | 21:26 |
| 17 | 08:39 | 07:40 | 06:29 | | 06:07 | 04:59 |
| | 16:14 | 17:21 | 18:22 | | 20:26 | 21:27 |
| 18 | 08:38 | 07:38 | 06:26 | | 06:04 | 04:57 |
| | 16:16 | 17:23 | 18:24 | | 20:28 | 21:29 |
| 19 | 08:36 | 07:36 | 06:24 | | 06:02 | 04:55 |
| | 16:18 | 17:26 | 5 08:08 (C14) | 18:26 | 20:31 | 21:31 |
| 20 | 08:35 | 07:33 | 06:21 | | 05:59 | 04:53 |
| | 16:20 | 17:28 | 10 08:10 (C14) | 18:28 | 20:33 | 21:33 |
| 21 | 08:33 | 07:31 | 06:18 | | 05:57 | 04:52 |
| | 16:22 | 17:30 | 14 08:12 (C14) | 18:30 | 20:35 | 21:35 |
| 22 | 08:32 | 07:28 | 06:16 | | 05:54 | 04:50 |
| | 16:24 | 17:32 | 17 08:12 (C14) | 18:32 | 20:37 | 21:37 |
| 23 | 08:30 | 07:26 | 06:13 | | 05:52 | 04:48 |
| | 16:26 | 17:34 | 20 08:13 (C14) | 18:34 | 20:39 | 21:38 |
| 24 | 08:29 | 07:23 | 06:10 | | 05:49 | 04:47 |
| | 16:28 | 17:37 | 23 08:13 (C14) | 18:36 | 20:41 | 21:40 |
| 25 | 08:27 | 07:21 | 06:08 | | 05:47 | 04:45 |
| | 16:30 | 17:39 | 25 08:14 (C14) | 18:39 | 20:43 | 21:42 |
| 26 | 08:26 | 07:18 | 06:05 | | 05:45 | 04:44 |
| | 16:32 | 17:41 | 25 08:14 (C14) | 18:41 | 20:45 | 21:43 |
| 27 | 08:24 | 07:16 | 06:02 | | 05:42 | 04:42 |
| | 16:34 | 17:43 | 25 08:13 (C14) | 18:43 | 20:47 | 21:45 |
| 28 | 08:22 | 07:13 | 06:00 | | 05:40 | 04:41 |
| | 16:37 | 17:45 | 24 08:13 (C14) | 18:45 | 20:49 | 21:47 |
| 29 | 08:20 | | 05:57 | | 05:37 | 04:40 |
| | 16:39 | | 19:47 | | 20:51 | 21:48 |
| 30 | 08:19 | | 06:54 | | 05:35 | 04:38 |
| | 16:41 | | 19:49 | | 20:53 | 21:50 |
| 31 | 08:17 | | 06:52 | | | 04:37 |
| | 16:43 | | 19:51 | | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 188 | 104 | 169 | | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.63 | 0.63 | 0.66 | | |
| Total reduction | | 0.12 | 0.25 | 0.32 | | |
| Total, real | | 23 | 26 | 54 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ausmas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (158)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------------|----------------------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 06:51 (C13) 19:10 (C13) | 07:17 18:54 | 07:23 16:36 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 06:50 (C13) 19:10 (C13) | 07:19 18:51 | 07:25 16:34 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 06:51 (C13) 19:10 (C13) | 07:21 18:48 | 07:27 16:32 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 06:53 (C13) 19:10 (C13) | 07:23 18:46 | 07:29 16:30 |
| 5 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 06:55 (C13) 19:09 (C13) | 07:26 18:43 | 07:31 16:27 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 06:57 (C13) 19:08 (C13) | 07:28 18:40 | 07:34 16:25 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 06:58 (C13) 19:06 (C13) | 07:30 18:38 | 07:36 16:23 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:00 (C13) 19:05 (C13) | 07:32 18:35 | 07:38 16:21 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:02 (C13) 18:33 | 11 08:29 (C14) 16 08:43 (C14) | 07:38 16:19 |
| 10 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:04 (C13) 18:30 | 16 08:45 (C14) 19 08:44 (C14) | 07:40 16:17 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:06 (C13) 18:27 | 11 08:46 (C14) 21 08:45 (C14) | 07:42 16:15 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:08 (C13) 18:25 | 22 08:46 (C14) 24 08:45 (C14) | 07:44 16:13 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:10 (C13) 18:22 | 24 08:46 (C14) 24 08:45 (C14) | 07:49 16:11 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:12 (C13) 18:20 | 24 08:46 (C14) 24 08:45 (C14) | 07:51 16:10 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:14 (C13) 18:17 | 25 08:46 (C14) 25 08:45 (C14) | 07:53 16:08 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:16 (C13) 18:15 | 25 08:46 (C14) 25 08:45 (C14) | 07:55 16:06 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:18 (C13) 18:12 | 24 08:46 (C14) 24 08:45 (C14) | 07:57 16:04 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:20 (C13) 18:09 | 22 08:46 (C14) 22 08:45 (C14) | 07:59 16:03 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:22 (C13) 18:07 | 22 08:46 (C14) 19 08:44 (C14) | 08:01 16:01 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:24 (C13) 18:04 | 16 08:46 (C14) 16 08:43 (C14) | 08:03 15:59 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:26 (C13) 18:02 | 12 08:46 (C14) 12 08:41 (C14) | 08:05 15:58 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 07:28 (C13) 18:00 | 9 08:46 (C14) 9 08:34 (C14) | 08:07 15:56 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 07:30 (C13) 17:57 | 4 08:46 (C14) 4 08:38 (C14) | 08:09 15:55 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 07:32 (C13) 17:55 | 08:05 15:53 | 08:11 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:34 (C13) 17:52 | 08:07 15:52 | 08:13 15:40 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:36 (C13) 17:50 | 08:09 15:51 | 08:15 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:38 (C13) 17:48 | 08:11 15:50 | 08:17 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:40 (C13) 17:46 | 08:13 15:48 | 08:19 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:42 (C13) 17:43 | 08:15 15:47 | 08:21 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:44 (C13) 17:41 | 08:17 15:46 | 08:23 15:44 |
| 31 | 05:14 21:30 | 06:15 20:17 | 07:17 18:54 | 07:46 (C13) 17:39 | 08:19 15:45 | 08:25 15:43 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 58 | 113 | 293 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.66 | 0.66 | 0.63 | | |
| Total reduction | | 0.32 | 0.27 | 0.16 | | |
| Total, real | | 18 | 31 | 46 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Auzani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (107)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| 1 | 08:51 | 08:15 | 07:11 | 06:49 | 05:33 | 04:36 | 04:30 | 05:16 | 06:17 | 07:17 | 07:23 | 08:24 |
| | 15:48 | 16:45 | 17:48 | 19:53 | 20:55 | 21:52 | 22:09 | 21:28 | 20:14 | 18:54 | 16:36 | 15:45 |
| 2 | 08:50 | 08:13 | 07:08 | 06:46 | 05:30 | 04:35 | 04:31 | 05:18 | 06:19 | 07:19 | 07:25 | 08:26 |
| | 15:50 | 16:48 | 17:50 | 19:55 | 20:57 | 21:54 | 22:08 | 21:26 | 20:11 | 18:51 | 16:34 | 15:44 |
| 3 | 08:50 | 08:11 | 07:06 | 06:44 | 05:28 | 04:34 | 04:32 | 05:20 | 06:21 | 07:21 | 07:27 | 08:27 |
| | 15:51 | 16:50 | 17:52 | 19:57 | 21:00 | 21:55 | 22:08 | 21:24 | 20:09 | 18:48 | 16:32 | 15:43 |
| 4 | 08:50 | 08:09 | 07:03 | 06:41 | 05:26 | 04:33 | 04:33 | 05:22 | 06:23 | 07:23 | 07:29 | 08:29 |
| | 15:52 | 16:52 | 17:54 | 19:59 | 21:02 | 21:56 | 22:07 | 21:22 | 20:06 | 18:46 | 16:30 | 15:43 |
| 5 | 08:49 | 08:07 | 07:01 | 06:38 | 05:24 | 04:32 | 04:34 | 05:24 | 06:25 | 07:26 | 07:31 | 08:31 |
| | 15:54 | 16:54 | 17:56 | 20:01 | 21:04 | 21:58 | 22:07 | 21:19 | 20:04 | 18:43 | 16:27 | 15:42 |
| 6 | 08:49 | 08:05 | 06:58 | 06:36 | 05:21 | 04:31 | 04:35 | 05:26 | 06:27 | 07:28 | 07:33 | 08:32 |
| | 15:55 | 16:57 | 17:59 | 20:03 | 21:06 | 21:59 | 22:06 | 21:17 | 20:01 | 18:40 | 16:25 | 15:41 |
| 7 | 08:48 | 08:03 | 06:55 | 06:33 | 05:19 | 04:30 | 04:36 | 05:28 | 06:29 | 07:30 | 07:36 | 08:34 |
| | 15:57 | 16:59 | 18:01 | 20:06 | 21:08 | 22:00 | 22:05 | 21:15 | 19:58 | 18:38 | 16:23 | 15:41 |
| 8 | 08:47 | 08:01 | 06:53 | 06:30 | 05:17 | 04:30 | 04:37 | 05:30 | 06:31 | 07:32 | 07:38 | 08:35 |
| | 15:58 | 17:01 | 18:03 | 20:08 | 21:10 | 22:01 | 22:04 | 21:13 | 19:56 | 18:35 | 16:21 | 15:40 |
| 9 | 08:47 | 07:58 | 06:50 | 06:28 | 05:15 | 04:29 | 04:38 | 05:31 | 06:33 | 07:34 | 07:40 | 08:37 |
| | 16:00 | 17:03 | 18:05 | 20:10 | 21:12 | 22:02 | 22:03 | 21:11 | 19:53 | 18:33 | 16:19 | 15:40 |
| 10 | 08:46 | 07:56 | 06:48 | 06:25 | 05:13 | 04:28 | 04:40 | 05:33 | 06:35 | 07:36 | 07:42 | 08:38 |
| | 16:01 | 17:06 | 18:07 | 20:12 | 21:14 | 22:03 | 22:02 | 21:08 | 19:50 | 18:30 | 16:17 | 15:39 |
| 11 | 08:45 | 07:54 | 06:45 | 06:22 | 05:11 | 04:28 | 04:41 | 05:35 | 06:37 | 07:38 | 07:44 | 08:39 |
| | 16:03 | 17:08 | 18:09 | 20:14 | 21:16 | 22:04 | 22:01 | 21:06 | 19:48 | 18:27 | 16:15 | 15:39 |
| 12 | 08:44 | 07:52 | 06:42 | 06:20 | 05:09 | 04:27 | 04:42 | 05:37 | 06:39 | 07:40 | 07:46 | 08:40 |
| | 16:05 | 17:10 | 18:11 | 20:16 | 21:18 | 22:05 | 22:00 | 21:04 | 19:45 | 18:25 | 16:13 | 15:39 |
| 13 | 08:43 | 07:50 | 06:40 | 06:17 | 05:07 | 04:27 | 04:44 | 05:39 | 06:41 | 07:42 | 07:49 | 08:41 |
| | 16:07 | 17:12 | 18:13 | 20:18 | 21:20 | 22:06 | 21:59 | 21:02 | 19:42 | 18:22 | 16:11 | 15:38 |
| 14 | 08:42 | 07:47 | 06:37 | 06:15 | 05:05 | 04:26 | 04:45 | 05:41 | 06:43 | 07:44 | 07:51 | 08:43 |
| | 16:08 | 17:15 | 18:16 | 20:20 | 21:22 | 22:07 | 21:58 | 20:59 | 19:39 | 18:20 | 16:10 | 15:38 |
| 15 | 08:41 | 07:45 | 06:34 | 06:12 | 05:03 | 04:26 | 04:47 | 05:43 | 06:45 | 07:46 | 07:53 | 08:44 |
| | 16:10 | 17:17 | 18:18 | 20:22 | 21:24 | 22:07 | 21:56 | 20:57 | 19:37 | 18:17 | 16:08 | 15:38 |
| 16 | 08:40 | 07:43 | 06:32 | 06:10 | 05:01 | 04:26 | 04:48 | 05:45 | 06:47 | 07:48 | 07:55 | 08:45 |
| | 16:12 | 17:19 | 18:20 | 20:24 | 21:25 | 22:08 | 21:55 | 20:54 | 19:34 | 18:15 | 16:06 | 15:38 |
| 17 | 08:39 | 07:40 | 06:29 | 06:07 | 04:59 | 04:26 | 04:50 | 05:47 | 06:49 | 07:50 | 07:57 | 08:45 |
| | 16:14 | 17:21 | 18:22 | 20:26 | 21:27 | 22:08 | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 15:38 |
| 18 | 08:37 | 07:38 | 06:26 | 06:04 | 04:57 | 04:26 | 04:51 | 05:49 | 06:51 | 07:52 | 07:59 | 08:46 |
| | 16:16 | 17:23 | 18:24 | 20:28 | 21:29 | 22:09 | 21:52 | 20:50 | 19:29 | 18:10 | 16:03 | 15:38 |
| 19 | 08:36 | 07:36 | 06:24 | 06:02 | 04:55 | 04:26 | 04:53 | 05:51 | 06:53 | 07:55 | 08:01 | 08:47 |
| | 16:18 | 17:26 | 18:26 | 20:31 | 21:31 | 22:09 | 21:51 | 20:47 | 19:26 | 18:07 | 16:01 | 15:39 |
| 20 | 08:35 | 07:33 | 06:21 | 05:59 | 04:54 | 04:26 | 04:54 | 05:53 | 06:55 | 07:57 | 08:03 | 08:48 |
| | 16:20 | 17:28 | 18:28 | 20:33 | 21:33 | 22:10 | 21:49 | 20:45 | 19:23 | 18:05 | 15:59 | 15:39 |
| 21 | 08:33 | 07:31 | 06:18 | 05:57 | 04:52 | 04:26 | 04:56 | 05:55 | 06:57 | 07:59 | 08:05 | 08:48 |
| | 16:22 | 17:30 | 18:30 | 20:35 | 21:35 | 22:10 | 21:48 | 20:42 | 19:21 | 18:02 | 15:58 | 15:39 |
| 22 | 08:32 | 07:28 | 06:16 | 05:54 | 04:50 | 04:26 | 04:58 | 05:57 | 06:59 | 08:01 | 08:07 | 08:49 |
| | 16:24 | 17:32 | 18:32 | 20:37 | 21:36 | 22:10 | 21:46 | 20:40 | 19:18 | 18:00 | 15:56 | 15:40 |
| 23 | 08:30 | 07:26 | 06:13 | 05:52 | 04:49 | 04:26 | 04:59 | 05:59 | 07:01 | 08:03 | 08:09 | 08:49 |
| | 16:26 | 17:35 | 18:34 | 20:39 | 21:38 | 22:10 | 21:45 | 20:37 | 19:15 | 17:57 | 15:55 | 15:40 |
| 24 | 08:29 | 07:23 | 06:10 | 05:49 | 04:47 | 04:26 | 05:01 | 06:01 | 07:03 | 08:05 | 08:11 | 08:50 |
| | 16:28 | 17:37 | 18:36 | 20:41 | 21:40 | 22:10 | 21:43 | 20:35 | 19:13 | 17:55 | 15:54 | 15:41 |
| 25 | 08:27 | 07:21 | 06:08 | 05:47 | 04:46 | 04:27 | 05:03 | 06:03 | 07:05 | 07:07 | 08:13 | 08:50 |
| | 16:30 | 17:39 | 18:39 | 20:43 | 21:42 | 22:10 | 21:41 | 20:32 | 19:10 | 16:52 | 15:52 | 15:42 |
| 26 | 08:26 | 07:18 | 06:05 | 05:45 | 04:44 | 04:27 | 05:05 | 06:05 | 07:07 | 07:10 | 08:15 | 08:51 |
| | 16:32 | 17:41 | 18:41 | 20:45 | 21:43 | 22:10 | 21:39 | 20:30 | 19:07 | 16:50 | 15:51 | 15:42 |
| 27 | 08:24 | 07:16 | 06:02 | 05:42 | 04:43 | 04:28 | 05:07 | 06:07 | 07:09 | 07:12 | 08:17 | 08:51 |
| | 16:35 | 17:43 | 18:43 | 20:47 | 21:45 | 22:10 | 21:37 | 20:27 | 19:04 | 16:48 | 15:50 | 15:43 |
| 28 | 08:22 | 07:13 | 06:00 | 05:40 | 04:41 | 04:28 | 05:08 | 06:09 | 07:11 | 07:14 | 08:19 | 08:51 |
| | 16:37 | 17:46 | 18:45 | 20:49 | 21:46 | 22:10 | 21:36 | 20:24 | 19:02 | 16:45 | 15:49 | 15:44 |
| 29 | 08:20 | | 06:57 | 05:37 | 04:40 | 04:29 | 05:10 | 06:11 | 07:13 | 07:16 | 08:21 | 08:51 |
| | 16:39 | | 19:47 | 20:51 | 21:48 | 22:10 | 21:34 | 20:22 | 18:59 | 16:43 | 15:47 | 15:45 |
| 30 | 08:18 | | 06:54 | 05:35 | 04:39 | 04:30 | 05:12 | 06:13 | 07:15 | 07:18 | 08:22 | 08:51 |
| | 16:41 | | 19:49 | 20:53 | 21:50 | 22:09 | 21:32 | 20:19 | 18:56 | 16:41 | 15:46 | 15:46 |
| 31 | 08:17 | | 06:52 | | 04:37 | | 05:14 | 06:15 | | 07:20 | | 08:51 |
| | 16:43 | | 19:51 | | 21:51 | | 21:30 | 20:17 | | 16:38 | | 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Avenes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (132)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|----------------|----------------|----------------|-------|
| 1 | 08:51 | 08:15 | 07:11 | 07:47 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 24 08:11 (C14) | 19:53 | 20:55 |
| 2 | 08:51 | 08:13 | 07:08 | 07:47 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 23 08:10 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:48 (C14) | 06:44 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 22 08:10 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:48 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 20 08:08 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:49 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 18 08:07 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 07:51 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:57 | 17:58 | 14 08:05 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 07:54 (C14) | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | 7 08:01 (C14) | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | 06:30 | 06:56 (C13) | 05:17 |
| | 15:58 | 17:01 | 18:03 | 20:08 | 14 07:10 (C13) | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | 06:28 | 06:53 (C13) | 05:15 |
| | 16:00 | 17:03 | 18:05 | 20:10 | 17 07:10 (C13) | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | 06:25 | 06:50 (C13) | 05:13 |
| | 16:01 | 17:05 | 18:07 | 20:12 | 19 07:09 (C13) | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | 06:22 | 06:49 (C13) | 05:11 |
| | 16:03 | 17:08 | 18:09 | 20:14 | 20 07:09 (C13) | 21:16 |
| 12 | 08:44 | 07:52 | 06:42 | 06:20 | 06:48 (C13) | 05:09 |
| | 16:05 | 17:10 | 18:11 | 20:16 | 20 07:08 (C13) | 21:18 |
| 13 | 08:43 | 07:50 | 06:40 | 06:17 | 06:49 (C13) | 05:07 |
| | 16:06 | 17:12 | 18:13 | 20:18 | 19 07:08 (C13) | 21:20 |
| 14 | 08:42 | 07:47 | 06:37 | 06:15 | 06:49 (C13) | 05:05 |
| | 16:08 | 17:14 | 18:16 | 20:20 | 17 07:06 (C13) | 21:22 |
| 15 | 08:41 | 07:45 | 06:34 | 06:12 | 06:51 (C13) | 05:03 |
| | 16:10 | 17:17 | 18:18 | 20:22 | 14 07:05 (C13) | 21:24 |
| 16 | 08:40 | 07:43 | 06:32 | 06:09 | 06:52 (C13) | 05:01 |
| | 16:12 | 17:19 | 18:20 | 20:24 | 11 07:03 (C13) | 21:26 |
| 17 | 08:39 | 07:40 | 06:29 | 06:07 | 06:55 (C13) | 04:59 |
| | 16:14 | 17:21 | 18:22 | 20:26 | 4 06:59 (C13) | 21:27 |
| 18 | 08:38 | 07:38 | 06:26 | 06:04 | | 04:57 |
| | 16:16 | 17:23 | 18:24 | 20:28 | | 21:29 |
| 19 | 08:36 | 07:36 | 08:03 (C14) | 06:24 | | 04:55 |
| | 16:18 | 17:26 | 1 08:04 (C14) | 18:26 | | 21:31 |
| 20 | 08:35 | 07:33 | 08:00 (C14) | 06:21 | | 04:53 |
| | 16:20 | 17:28 | 7 08:07 (C14) | 18:28 | | 21:33 |
| 21 | 08:33 | 07:31 | 07:58 (C14) | 06:18 | | 04:52 |
| | 16:22 | 17:30 | 11 08:09 (C14) | 18:30 | | 21:35 |
| 22 | 08:32 | 07:28 | 07:55 (C14) | 06:16 | | 04:50 |
| | 16:24 | 17:32 | 15 08:10 (C14) | 18:32 | | 21:37 |
| 23 | 08:30 | 07:26 | 07:53 (C14) | 06:13 | | 04:48 |
| | 16:26 | 17:34 | 18 08:11 (C14) | 18:34 | | 21:38 |
| 24 | 08:29 | 07:23 | 07:50 (C14) | 06:10 | | 04:47 |
| | 16:28 | 17:37 | 21 08:11 (C14) | 18:36 | | 21:40 |
| 25 | 08:27 | 07:21 | 07:48 (C14) | 06:08 | | 04:45 |
| | 16:30 | 17:39 | 24 08:12 (C14) | 18:39 | | 21:42 |
| 26 | 08:26 | 07:18 | 07:47 (C14) | 06:05 | | 04:44 |
| | 16:32 | 17:41 | 25 08:12 (C14) | 18:41 | | 21:43 |
| 27 | 08:24 | 07:16 | 07:46 (C14) | 06:02 | | 04:42 |
| | 16:34 | 17:43 | 26 08:12 (C14) | 18:43 | | 21:45 |
| 28 | 08:22 | 07:13 | 07:47 (C14) | 06:00 | | 04:41 |
| | 16:37 | 17:45 | 25 08:12 (C14) | 18:45 | | 21:47 |
| 29 | 08:20 | | | 06:57 | | 04:40 |
| | 16:39 | | | 19:47 | | 21:48 |
| 30 | 08:19 | | | 06:54 | | 04:38 |
| | 16:41 | | | 19:49 | | 21:50 |
| 31 | 08:17 | | | 06:52 | | 04:37 |
| | 16:43 | | | 19:51 | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 173 | 128 | | 178 | |
| Sun reduction | | 0.20 | 0.41 | | 0.50 | |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.63 | 0.63 | | 0.66 | |
| Total reduction | | 0.12 | 0.25 | | 0.32 | |
| Total, real | | 21 | 32 | | 57 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Avenes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (132)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|-------------|-------------|-------------|-------------|
| 1 | 04:30 | 05:16 | 06:17 | 06:48 (C13) | 07:17 | 07:23 |
| | 22:09 | 21:28 | 20:14 | 20:08 (C13) | 18:54 | 16:36 |
| 2 | 04:31 | 05:18 | 06:19 | 06:49 (C13) | 07:19 | 07:25 |
| | 22:09 | 21:26 | 20:11 | 20:08 (C13) | 18:51 | 16:34 |
| 3 | 04:32 | 05:20 | 06:21 | 06:51 (C13) | 07:21 | 07:27 |
| | 22:08 | 21:24 | 20:09 | 20:08 (C13) | 18:48 | 16:32 |
| 4 | 04:33 | 05:22 | 06:23 | 06:53 (C13) | 07:23 | 07:29 |
| | 22:07 | 21:22 | 20:06 | 20:07 (C13) | 18:46 | 16:30 |
| 5 | 04:34 | 05:24 | 06:25 | 06:55 (C13) | 07:25 | 07:31 |
| | 22:07 | 21:20 | 20:04 | 20:06 (C13) | 18:43 | 16:27 |
| 6 | 04:35 | 05:25 | 06:27 | 06:57 (C13) | 07:28 | 07:34 |
| | 22:06 | 21:17 | 20:01 | 20:05 (C13) | 18:40 | 16:25 |
| 7 | 04:36 | 05:27 | 06:29 | 06:58 (C13) | 07:30 | 08:28 (C14) |
| | 22:05 | 21:15 | 19:58 | 20:02 (C13) | 18:38 | 16:23 |
| 8 | 04:37 | 05:29 | 06:31 | 07:02 (C13) | 07:32 | 08:39 (C14) |
| | 22:04 | 21:13 | 19:56 | 18:35 | 16:21 | 15:40 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 08:24 (C14) | 07:40 |
| | 22:03 | 21:11 | 19:53 | 18:33 | 16:19 | 15:39 |
| 10 | 04:40 | 05:33 | 06:35 | 07:36 | 08:23 (C14) | 07:42 |
| | 22:02 | 21:09 | 19:50 | 18:30 | 16:17 | 15:39 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 08:21 (C14) | 07:44 |
| | 22:01 | 21:06 | 19:48 | 18:27 | 16:15 | 15:39 |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | 08:20 (C14) | 07:46 |
| | 22:00 | 21:04 | 19:45 | 18:25 | 16:13 | 15:38 |
| 13 | 04:44 | 05:39 | 06:41 | 07:42 | 08:20 (C14) | 07:49 |
| | 21:59 | 21:02 | 19:42 | 18:22 | 16:11 | 15:38 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 08:19 (C14) | 07:51 |
| | 21:58 | 20:59 | 19:39 | 18:20 | 16:10 | 15:38 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 08:19 (C14) | 07:53 |
| | 21:57 | 20:57 | 19:37 | 18:17 | 16:08 | 15:38 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 08:19 (C14) | 07:55 |
| | 21:55 | 20:54 | 19:34 | 18:15 | 16:06 | 15:38 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | 08:20 (C14) | 07:57 |
| | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 15:38 |
| 18 | 04:51 | 05:49 | 06:51 | 07:53 | 08:22 (C14) | 07:59 |
| | 21:52 | 20:50 | 19:29 | 18:09 | 16:03 | 15:38 |
| 19 | 04:53 | 05:51 | 06:53 | 07:55 | 08:25 (C14) | 08:01 |
| | 21:51 | 20:47 | 19:26 | 18:07 | 16:01 | 15:38 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | 08:27 (C14) | 08:03 |
| | 21:49 | 20:45 | 19:23 | 18:04 | 15:59 | 15:39 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | 08:29 (C14) | 08:05 |
| | 21:48 | 20:42 | 19:21 | 18:02 | 15:58 | 15:39 |
| 22 | 04:58 | 05:57 | 06:59 | 08:01 | 08:31 (C14) | 08:07 |
| | 21:46 | 20:40 | 19:18 | 18:00 | 15:56 | 15:40 |
| 23 | 04:59 | 05:59 | 07:01 | 08:03 | 08:36 (C14) | 08:09 |
| | 21:45 | 20:37 | 19:15 | 17:57 | 15:55 | 15:40 |
| 24 | 05:01 | 06:01 | 07:03 | 08:05 | 08:11 | 08:50 |
| | 21:43 | 20:35 | 19:12 | 17:55 | 15:53 | 15:41 |
| 25 | 05:03 | 06:03 | 07:05 | 07:07 | 08:13 | 08:50 |
| | 21:41 | 20:32 | 19:10 | 16:52 | 15:52 | 15:41 |
| 26 | 05:05 | 06:05 | 06:58 (C13) | 07:07 | 07:10 | 08:15 |
| | 21:39 | 20:30 | 19:07 | 16:50 | 15:51 | 15:42 |
| 27 | 05:06 | 06:07 | 06:54 (C13) | 07:09 | 07:12 | 08:17 |
| | 21:38 | 20:27 | 19:04 | 16:48 | 15:50 | 15:43 |
| 28 | 05:08 | 06:09 | 06:51 (C13) | 07:11 | 07:14 | 08:19 |
| | 21:36 | 20:24 | 19:02 | 16:45 | 15:48 | 15:44 |
| 29 | 05:10 | 06:11 | 06:50 (C13) | 07:13 | 07:16 | 08:21 |
| | 21:34 | 20:22 | 18:59 | 16:43 | 15:47 | 15:45 |
| 30 | 05:12 | 06:13 | 06:49 (C13) | 07:15 | 07:18 | 08:22 |
| | 21:32 | 20:19 | 18:56 | 16:41 | 15:46 | 15:46 |
| 31 | 05:14 | 06:15 | 06:48 (C13) | 07:20 | 07:20 | 08:51 |
| | 21:30 | 20:17 | 18:53 | 16:38 | 15:47 | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 88 | 93 | 303 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.66 | 0.66 | 0.63 | | |
| Total reduction | | 0.32 | 0.27 | 0.16 | | |
| Total, real | | 28 | 25 | 48 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Avoti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (2)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:56 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:36 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:49 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:06 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:47 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:10 17:47 | 05:57 18:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | 07:06 17:49 | 05:54 18:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 07:05 17:51 | 05:52 18:51 | 05:33 21:51 | 04:37 21:51 | 04:30 21:30 | 05:14 20:17 | 06:15 20:17 | 07:20 16:38 | 07:20 15:42 | 08:51 15:47 | |
| Potential sun hours | 235 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Avotini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (114)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------------------------|----------------------------------|----------------------------------|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|--|----------------------------------|
| 1 | 08:51 15:48 08:51 15:49 | 08:15 16:45 08:13 16:47 | 07:11 17:47 07:08 17:50 | 08:06 (C1) 08:13 (C1) 19:53 20:55 | 05:32 20:55 21:53 22:09 | 04:36 21:53 04:35 22:09 | 04:30 22:09 04:31 21:26 | 05:16 21:28 05:17 20:11 | 06:17 20:14 06:19 20:11 | 07:17 18:54 07:19 18:51 | 07:23 16:36 07:25 16:34 | 08:24 15:45 08:26 15:44 |
| 2 | 08:50 15:51 08:50 15:52 | 08:11 16:50 08:09 16:52 | 07:06 17:52 07:03 17:54 | 06:43 19:57 06:41 19:59 | 05:28 21:00 05:26 21:02 | 04:34 21:55 04:33 21:57 | 04:32 22:08 04:32 22:07 | 05:19 21:24 05:21 21:22 | 06:21 20:09 06:23 20:06 | 07:21 18:48 07:23 18:46 | 07:27 16:31 07:29 16:29 | 08:28 15:43 08:29 15:42 |
| 3 | 08:49 15:53 08:49 15:55 | 08:07 16:54 08:05 16:56 | 07:00 17:56 06:58 17:58 | 06:38 20:01 06:35 20:03 | 05:23 21:04 05:21 21:06 | 04:32 21:58 04:31 21:59 | 04:33 22:07 04:35 22:06 | 05:23 21:20 05:25 21:17 | 06:25 20:03 06:27 20:01 | 07:25 18:43 07:27 18:40 | 07:31 16:27 07:33 16:25 | 08:31 15:41 08:32 15:41 |
| 4 | 08:48 15:56 08:48 15:58 | 08:03 16:59 08:01 17:01 | 06:55 18:00 06:53 18:03 | 06:33 20:05 06:30 20:08 | 05:19 21:08 05:17 21:10 | 04:30 22:00 04:29 22:01 | 04:36 22:05 04:37 22:04 | 05:27 21:15 05:29 21:13 | 06:29 19:58 06:31 19:55 | 07:30 18:38 07:32 18:35 | 07:36 16:23 07:38 16:21 | 08:34 15:40 08:35 15:40 |
| 5 | 08:47 15:59 08:46 16:01 | 07:58 17:03 07:56 17:05 | 06:50 18:05 06:47 18:07 | 06:27 20:10 06:25 20:12 | 05:15 21:12 05:13 21:14 | 04:28 22:02 04:28 22:03 | 04:38 22:03 04:39 22:02 | 05:31 21:11 05:33 21:08 | 06:33 19:53 06:35 19:50 | 07:34 18:32 07:36 18:30 | 07:40 16:19 07:42 16:17 | 08:37 15:39 08:38 15:39 |
| 6 | 08:45 16:03 08:44 16:04 | 07:54 17:08 07:52 17:10 | 06:45 18:09 06:42 18:11 | 06:22 20:14 06:20 20:16 | 05:10 21:16 05:08 21:18 | 04:27 22:04 04:27 22:05 | 04:41 22:01 04:42 22:00 | 05:35 21:06 05:37 21:04 | 06:37 19:47 06:39 19:45 | 07:38 18:27 07:40 18:25 | 07:44 16:15 07:46 16:13 | 08:39 15:38 08:40 15:38 |
| 7 | 08:43 16:06 08:42 16:08 | 07:50 17:12 07:47 17:14 | 06:40 18:13 06:37 18:15 | 06:17 20:18 06:14 20:20 | 05:06 21:20 05:04 21:22 | 04:26 22:06 04:26 22:07 | 04:43 21:59 04:45 21:58 | 05:39 21:02 05:41 21:05 | 06:41 19:42 06:43 19:44 | 07:42 18:22 07:44 18:19 | 08:38 (C1) 16:11 08:35 (C1) 16:09 | 07:49 15:38 07:51 15:38 |
| 8 | 08:41 16:10 08:40 16:12 | 07:45 17:17 07:43 17:19 | 06:34 18:17 06:32 18:20 | 06:12 20:22 06:09 20:24 | 05:02 21:24 05:01 21:26 | 04:26 22:07 04:25 22:08 | 04:46 21:57 04:48 21:55 | 05:43 20:57 05:45 20:54 | 06:45 19:37 06:47 19:34 | 07:46 18:17 07:48 18:14 | 08:34 (C1) 16:07 08:33 (C1) 15:55 | 07:53 15:38 07:55 15:38 |
| 9 | 08:39 16:14 08:38 16:16 | 07:40 17:21 07:38 17:23 | 06:29 18:22 06:26 18:24 | 06:07 20:26 06:04 20:28 | 04:59 21:27 04:57 21:29 | 04:25 22:09 04:25 22:09 | 04:49 21:54 04:51 21:53 | 05:47 20:52 05:49 20:50 | 06:49 19:31 06:51 19:29 | 07:50 18:12 07:52 18:09 | 08:32 (C1) 16:04 08:31 (C1) 16:02 | 07:57 15:38 07:59 15:38 |
| 10 | 08:36 16:18 08:35 16:20 | 07:36 17:25 07:33 17:28 | 06:24 18:26 06:21 18:28 | 06:02 20:30 05:59 20:33 | 04:55 21:31 04:53 21:33 | 04:25 22:09 04:25 22:10 | 04:52 21:51 04:54 21:50 | 05:51 20:47 05:53 20:45 | 06:53 19:26 06:55 19:23 | 07:55 18:07 07:57 18:04 | 08:31 (C1) 16:01 08:31 (C1) 15:59 | 08:47 15:38 08:48 15:38 |
| 11 | 08:33 16:22 08:32 16:24 | 07:31 17:30 07:28 17:32 | 06:18 18:30 06:15 18:32 | 05:57 20:35 05:54 20:37 | 04:52 21:35 04:50 21:37 | 04:25 22:10 04:25 22:10 | 04:56 21:48 04:57 21:46 | 05:55 20:42 05:57 20:40 | 06:57 19:20 06:59 19:18 | 07:59 18:02 08:01 17:59 | 08:30 (C1) 15:58 08:32 (C1) 15:56 | 08:05 15:39 08:07 15:39 |
| 12 | 08:30 16:26 08:29 16:28 | 07:26 17:34 07:23 17:37 | 06:13 18:34 06:10 18:36 | 05:52 20:39 05:49 20:41 | 04:48 21:38 04:47 21:40 | 04:26 22:10 04:26 22:11 | 04:59 21:45 05:01 21:43 | 05:59 20:37 06:01 20:35 | 07:01 19:15 07:03 19:12 | 08:03 17:57 08:05 17:55 | 08:34 (C1) 15:55 08:36 (C1) 15:53 | 08:09 15:40 08:11 15:40 |
| 13 | 08:27 16:30 08:26 16:32 | 07:21 17:39 07:18 17:41 | 06:07 18:38 06:05 18:41 | 05:47 20:43 05:44 20:45 | 04:45 21:42 04:44 21:43 | 04:26 22:11 04:27 22:10 | 05:03 21:41 05:04 21:39 | 06:03 20:32 06:05 20:30 | 07:05 19:10 07:07 19:07 | 07:07 18:52 07:10 18:50 | 07:38 (C1) 15:52 07:41 (C1) 15:51 | 08:13 15:41 08:15 15:42 |
| 14 | 08:24 16:34 08:22 16:36 | 07:16 17:43 07:13 17:45 | 06:02 18:43 05:59 18:45 | 05:42 20:47 05:39 20:49 | 04:42 21:45 04:41 21:47 | 04:27 22:10 04:28 22:10 | 05:06 21:38 05:08 21:36 | 06:07 20:27 06:09 20:24 | 07:09 19:04 07:11 19:02 | 07:12 18:47 07:14 18:45 | 07:43 (C1) 15:49 07:45 (C1) 15:48 | 08:17 15:43 08:19 15:44 |
| 15 | 08:20 16:39 08:19 16:41 | 07:13 17:45 07:10 17:48 | 05:59 18:45 05:57 18:47 | 05:37 20:51 05:35 20:53 | 04:41 21:48 04:38 21:50 | 04:28 22:10 04:28 22:10 | 05:08 21:34 05:10 21:32 | 06:09 20:22 06:11 20:22 | 07:11 19:15 07:13 19:15 | 07:14 18:59 07:16 19:01 | 08:19 15:47 08:21 15:46 | 08:51 15:44 08:51 15:45 |
| 16 | 08:17 16:43 | 07:07 17:51 | 06:51 18:51 | 05:31 20:51 | 04:41 21:51 | 04:28 22:10 | 05:08 21:30 | 06:09 20:17 | 07:11 18:56 | 07:14 18:40 | 08:19 15:47 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 233 | 7 | | | | | | | 244 | | |
| Sun reduction | | 0.20 | 0.41 | | | | | | | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | | | | | | | 0.98 | | |
| Wind dir. red. | | 0.62 | 0.62 | | | | | | | 0.62 | | |
| Total reduction | | 0.12 | 0.25 | | | | | | | 0.16 | | |
| Total, real | | 29 | 2 | | | | | | | 39 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Bajari - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (22)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:04 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:11 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Biksti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (38)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|---------------|-------|-------------|-------|
| 1 | 08:51 | 08:15 | 07:11 | 06:49 | 07:14 (C17) | 05:32 |
| | 15:48 | 16:45 | 17:47 | 19:53 | 17 | 20:55 |
| 2 | 08:51 | 08:13 | 08:43 (C1) | 06:46 | 07:11 (C17) | 05:30 |
| | 15:49 | 16:47 | 3 08:46 (C1) | 19:55 | 19 | 20:58 |
| 3 | 08:50 | 08:11 | 08:41 (C1) | 06:43 | 07:10 (C17) | 05:28 |
| | 15:50 | 16:50 | 8 08:49 (C1) | 19:57 | 19 | 21:00 |
| 4 | 08:50 | 08:09 | 08:39 (C1) | 06:41 | 07:11 (C17) | 05:26 |
| | 15:52 | 16:52 | 11 08:50 (C1) | 19:59 | 18 | 21:02 |
| 5 | 08:49 | 08:07 | 08:37 (C1) | 06:38 | 07:11 (C17) | 05:23 |
| | 15:53 | 16:54 | 15 08:52 (C1) | 20:01 | 17 | 21:04 |
| 6 | 08:49 | 08:05 | 08:34 (C1) | 06:35 | 07:12 (C17) | 05:21 |
| | 15:55 | 16:56 | 18 08:52 (C1) | 20:03 | 15 | 21:06 |
| 7 | 08:48 | 08:03 | 08:32 (C1) | 06:33 | 07:13 (C17) | 05:19 |
| | 15:56 | 16:59 | 21 08:53 (C1) | 20:05 | 12 | 21:08 |
| 8 | 08:48 | 08:01 | 08:31 (C1) | 06:30 | 07:14 (C17) | 05:17 |
| | 15:58 | 17:01 | 23 08:54 (C1) | 20:08 | 8 | 21:10 |
| 9 | 08:47 | 07:58 | 08:30 (C1) | 06:27 | | 05:15 |
| | 15:59 | 17:03 | 23 08:53 (C1) | 20:10 | | 21:12 |
| 10 | 08:46 | 07:56 | 08:31 (C1) | 06:25 | | 05:12 |
| | 16:01 | 17:05 | 23 08:54 (C1) | 20:12 | | 21:14 |
| 11 | 08:45 | 07:54 | 08:31 (C1) | 06:22 | | 05:10 |
| | 16:03 | 17:08 | 23 08:54 (C1) | 20:14 | | 21:16 |
| 12 | 08:44 | 07:52 | 08:31 (C1) | 06:20 | | 05:08 |
| | 16:04 | 17:10 | 23 08:54 (C1) | 20:16 | | 21:18 |
| 13 | 08:43 | 07:50 | 08:32 (C1) | 06:17 | | 05:06 |
| | 16:06 | 17:12 | 22 08:54 (C1) | 20:18 | | 21:20 |
| 14 | 08:42 | 07:47 | 08:32 (C1) | 06:14 | | 05:04 |
| | 16:08 | 17:14 | 20 08:52 (C1) | 20:20 | | 21:22 |
| 15 | 08:41 | 07:45 | 08:33 (C1) | 06:12 | | 05:02 |
| | 16:10 | 17:17 | 19 08:52 (C1) | 20:22 | | 21:24 |
| 16 | 08:40 | 07:43 | 08:34 (C1) | 06:09 | | 05:00 |
| | 16:12 | 17:19 | 16 08:50 (C1) | 20:24 | | 21:26 |
| 17 | 08:39 | 07:40 | 08:36 (C1) | 06:07 | | 04:59 |
| | 16:14 | 17:21 | 13 08:49 (C1) | 20:26 | | 21:27 |
| 18 | 08:38 | 07:38 | 08:38 (C1) | 06:04 | | 04:57 |
| | 16:16 | 17:23 | 8 08:46 (C1) | 20:28 | | 21:29 |
| 19 | 08:36 | 07:36 | | 06:02 | | 04:55 |
| | 16:18 | 17:25 | | 20:30 | | 21:31 |
| 20 | 08:35 | 07:33 | | 05:59 | | 04:53 |
| | 16:20 | 17:28 | | 20:33 | | 21:33 |
| 21 | 08:33 | 07:31 | | 05:57 | | 04:51 |
| | 16:22 | 17:30 | | 20:35 | | 21:35 |
| 22 | 08:32 | 07:28 | | 05:54 | | 04:50 |
| | 16:24 | 17:32 | | 20:37 | | 21:37 |
| 23 | 08:30 | 07:26 | | 05:52 | | 04:48 |
| | 16:26 | 17:34 | | 20:39 | | 21:38 |
| 24 | 08:29 | 07:23 | | 05:49 | | 04:47 |
| | 16:28 | 17:37 | | 20:41 | | 21:40 |
| 25 | 08:27 | 07:21 | | 05:47 | | 04:45 |
| | 16:30 | 17:39 | | 20:43 | | 21:42 |
| 26 | 08:26 | 07:18 | | 05:44 | | 04:44 |
| | 16:32 | 17:41 | | 20:45 | | 21:43 |
| 27 | 08:24 | 07:16 | | 05:42 | | 04:42 |
| | 16:34 | 17:43 | | 20:47 | | 21:45 |
| 28 | 08:22 | 07:13 | | 05:39 | | 04:41 |
| | 16:36 | 17:45 | | 20:49 | | 21:47 |
| 29 | 08:20 | | | 05:37 | | 04:39 |
| | 16:39 | | | 20:51 | | 21:48 |
| 30 | 08:19 | | | 05:35 | | 04:38 |
| | 16:41 | | | 20:53 | | 21:50 |
| 31 | 08:17 | | | 05:37 | | 04:37 |
| | 16:43 | | | 21:51 | | 22:10 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 289 | 35 | 125 | | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.61 | 0.66 | 0.66 | | |
| Total reduction | | 0.12 | 0.26 | 0.32 | | |
| Total, real | | 34 | 9 | 40 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Biksti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (38)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|---------------------|---------------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:00 (C1) 15:45 |
| 2 | 04:31 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:00 (C1) 15:44 |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:01 (C1) 15:43 |
| 4 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:02 (C1) 15:42 |
| 5 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:05 (C1) 15:41 |
| 6 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:07 (C1) 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:09 (C1) 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:12 (C1) 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:14 (C1) 15:39 |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:17 (C1) 15:39 |
| 11 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:19 (C1) 15:38 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:21 (C1) 15:38 |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:23 (C1) 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:25 (C1) 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:27 (C1) 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:29 (C1) 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:31 (C1) 15:38 |
| 18 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:33 (C1) 15:38 |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:35 (C1) 15:38 |
| 20 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:37 (C1) 15:38 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:39 (C1) 15:39 |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:41 (C1) 15:39 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:43 (C1) 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 09:07 (C1) 15:53 | 08:11 (C1) 15:40 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 09:17 (C1) 15:52 | 08:13 (C1) 15:41 |
| 26 | 05:04 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:04 (C1) 15:51 | 08:15 (C1) 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:47 | 08:21 (C1) 15:49 | 08:17 (C1) 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 16:45 | 08:22 (C1) 15:48 | 08:19 (C1) 15:43 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:23 (C1) 15:47 | 08:21 (C1) 15:44 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:40 | 08:24 (C1) 15:46 | 08:23 (C1) 15:45 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 08:20 16:38 | 08:25 (C1) 15:45 | 08:24 (C1) 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | 163 | 151 | 141 | |
| Sun reduction | | | 0.43 | 0.26 | 0.08 | |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | | 0.66 | 0.61 | 0.61 | |
| Total reduction | | | 0.27 | 0.15 | 0.05 | |
| Total, real | | | 44 | 23 | 7 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Birzes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (4)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:31 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Birzmaliešis - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (70)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|-------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 08:39 (C13) | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 5 | 08:37 (C13) 17:56 | 07:01 19:56 | 05:23 21:04 | 04:34 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:25 18:43 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 9 | 08:34 (C13) 17:58 | 06:38 19:58 | 05:20 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 13 | 08:32 (C13) 18:01 | 06:55 19:56 | 05:19 21:06 | 04:30 21:59 | 04:36 22:06 | 05:27 21:17 | 06:29 20:01 | 07:30 18:40 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 16 | 08:30 (C13) 18:03 | 06:53 19:58 | 05:17 21:08 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 19 | 08:28 (C13) 18:05 | 06:50 19:59 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 21 | 08:28 (C13) 18:07 | 06:48 19:59 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 22 | 08:28 (C13) 18:09 | 06:45 19:59 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 08:39 15:38 |
| 12 | 08:44 16:05 | 07:52 17:10 | 23 | 08:28 (C13) 18:11 | 06:42 19:59 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 22 | 08:28 (C13) 18:13 | 06:40 19:59 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 22 | 08:28 (C13) 18:15 | 06:37 19:59 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 20 | 08:28 (C13) 18:18 | 06:34 19:59 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 19 | 08:28 (C13) 18:20 | 06:32 19:59 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 16 | 08:31 (C13) 18:22 | 06:29 19:59 | 05:07 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 13 | 08:32 (C13) 18:24 | 06:26 19:59 | 05:04 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 8 | 08:35 (C13) 18:26 | 06:24 19:59 | 05:02 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | | 08:43 (C13) 18:28 | 06:21 19:59 | 05:00 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | | | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | | | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | | | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | | | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | | | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | | | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:09 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | | | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:11 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | | | 05:59 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:13 15:44 |
| 29 | 08:20 16:39 | | | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 19:09 | 08:15 15:45 |
| 30 | 08:19 16:41 | | | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:17 15:46 |
| 31 | 08:17 16:43 | | | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | 07:20 18:38 | 08:19 15:47 |
| Potential sun hours | 235 | 266 | | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 216 |
| Total, worst case | | 270 | | | | | | | | 171 | | |
| Sun reduction | | 0.20 | | | | | | | | 0.26 | | |
| Oper. time red. | | 0.98 | | | | | | | | 0.98 | | |
| Wind dir. red. | | 0.61 | | | | | | | | 0.61 | | |
| Total reduction | | 0.12 | | | | | | | | 0.16 | | |
| Total, real | | 33 | | | | | | | | 27 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Birznieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (176)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:43 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:06 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:39 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:26 22:10 | 05:00 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:11 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Birztalas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (15)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:20 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:22 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:24 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:26 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:28 20:01 | 07:28 18:41 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:09 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:08 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:06 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:08 20:27 | 07:09 19:05 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:10 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Bisenieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (183)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | February | | March | | April | | May | | June | |
|---------------------|---------|-------------|-------------|-------|-------------|-------|-------|----|-------------|-------|-------|--|
| 1 | 08:51 | | 08:15 | | 08:45 (C15) | 07:11 | 06:49 | | 05:33 | | 04:36 | |
| | 15:48 | | 16:45 | 57 | 10:11 (C14) | 17:48 | 19:53 | | 20:55 | | 21:53 | |
| 2 | 08:50 | | 08:13 | | 08:43 (C15) | 07:08 | 06:46 | | 05:30 | | 04:35 | |
| | 15:49 | | 16:48 | 59 | 10:11 (C14) | 17:50 | 19:55 | 9 | 07:17 (C13) | 20:57 | 21:54 | |
| 3 | 08:50 | | 08:11 | | 08:42 (C15) | 07:06 | 06:43 | | 05:28 | | 04:34 | |
| | 15:51 | | 16:50 | 61 | 10:11 (C14) | 17:52 | 19:57 | 17 | 07:30 (C13) | 21:00 | 21:55 | |
| 4 | 08:50 | 09:40 (C14) | 08:09 | | 08:42 (C15) | 07:03 | 06:41 | | 05:26 | | 04:33 | |
| | 15:52 | 6 | 09:46 (C14) | 16:52 | 10:11 (C14) | 17:54 | 19:59 | 22 | 07:32 (C13) | 21:02 | 21:57 | |
| 5 | 08:49 | | 09:39 (C14) | 08:07 | 08:43 (C15) | 07:01 | 06:38 | | 05:23 | | 04:32 | |
| | 15:53 | 11 | 09:50 (C14) | 16:54 | 10:11 (C14) | 17:56 | 20:01 | 25 | 07:33 (C13) | 21:04 | 21:58 | |
| 6 | 08:49 | | 09:37 (C14) | 08:05 | 08:42 (C15) | 06:58 | 06:35 | | 05:21 | | 04:31 | |
| | 15:55 | 14 | 09:51 (C14) | 16:56 | 10:10 (C14) | 17:58 | 20:03 | 28 | 07:35 (C13) | 21:06 | 21:59 | |
| 7 | 08:48 | | 09:36 (C14) | 08:03 | 08:42 (C15) | 06:55 | 06:33 | | 05:19 | | 04:30 | |
| | 15:56 | 17 | 09:53 (C14) | 16:59 | 10:09 (C14) | 18:01 | 20:06 | 30 | 07:35 (C13) | 21:08 | 22:00 | |
| 8 | 08:48 | | 09:36 (C14) | 08:01 | 08:43 (C15) | 06:53 | 06:30 | | 05:17 | | 04:29 | |
| | 15:58 | 18 | 09:54 (C14) | 17:01 | 10:08 (C14) | 18:03 | 20:08 | 32 | 07:36 (C13) | 21:10 | 22:01 | |
| 9 | 08:47 | | 09:35 (C14) | 07:58 | 08:43 (C15) | 06:50 | 06:28 | | 05:15 | | 04:29 | |
| | 16:00 | 21 | 09:56 (C14) | 17:03 | 10:06 (C14) | 18:05 | 20:10 | 33 | 07:36 (C13) | 21:12 | 22:02 | |
| 10 | 08:46 | | 09:34 (C14) | 07:56 | 08:44 (C15) | 06:47 | 06:25 | | 05:13 | | 04:28 | |
| | 16:01 | 23 | 09:57 (C14) | 17:05 | 10:05 (C14) | 18:07 | 20:12 | 34 | 07:36 (C13) | 21:14 | 22:03 | |
| 11 | 08:45 | | 09:34 (C14) | 07:54 | 08:45 (C15) | 06:45 | 06:22 | | 05:11 | | 04:27 | |
| | 16:03 | 25 | 09:59 (C14) | 17:08 | 10:04 (C14) | 18:09 | 20:14 | 35 | 07:37 (C13) | 21:16 | 22:04 | |
| 12 | 08:44 | | 09:34 (C14) | 07:52 | 08:46 (C15) | 06:42 | 06:20 | | 05:09 | | 04:27 | |
| | 16:05 | 26 | 10:00 (C14) | 17:10 | 10:00 (C14) | 18:11 | 20:16 | 35 | 07:36 (C13) | 21:18 | 22:05 | |
| 13 | 08:43 | | 09:33 (C14) | 07:50 | 08:48 (C15) | 06:40 | 06:17 | | 05:07 | | 04:26 | |
| | 16:06 | 28 | 10:01 (C14) | 17:12 | 09:55 (C14) | 18:13 | 20:18 | 36 | 07:37 (C13) | 21:20 | 22:06 | |
| 14 | 08:42 | | 09:33 (C14) | 07:47 | 08:49 (C15) | 06:37 | 06:15 | | 05:05 | | 04:26 | |
| | 16:08 | 29 | 10:02 (C14) | 17:14 | 08:59 (C15) | 18:15 | 20:20 | 36 | 07:36 (C13) | 21:22 | 22:07 | |
| 15 | 08:41 | | 09:32 (C14) | 07:45 | | 06:34 | 06:12 | | 05:03 | | 04:26 | |
| | 16:10 | 31 | 10:03 (C14) | 17:17 | | 18:18 | 20:22 | 36 | 07:36 (C13) | 21:24 | 22:07 | |
| 16 | 08:40 | | 09:32 (C14) | 07:43 | | 06:32 | 06:09 | | 05:01 | | 04:26 | |
| | 16:12 | 32 | 10:04 (C14) | 17:19 | | 18:20 | 20:24 | 35 | 07:35 (C13) | 21:25 | 22:08 | |
| 17 | 08:39 | | 09:32 (C14) | 07:40 | | 06:29 | 06:07 | | 04:59 | | 04:25 | |
| | 16:14 | 33 | 10:05 (C14) | 17:21 | | 18:22 | 20:26 | 35 | 07:35 (C13) | 21:27 | 22:08 | |
| 18 | 08:37 | | 09:32 (C14) | 07:38 | | 06:26 | 06:04 | | 04:57 | | 04:25 | |
| | 16:16 | 34 | 10:06 (C14) | 17:23 | | 18:24 | 20:28 | 33 | 07:33 (C13) | 21:29 | 22:09 | |
| 19 | 08:36 | | 09:31 (C14) | 07:36 | | 06:24 | 06:02 | | 04:55 | | 04:25 | |
| | 16:18 | 35 | 10:06 (C14) | 17:26 | | 18:26 | 20:30 | 32 | 07:33 (C13) | 21:31 | 22:09 | |
| 20 | 08:35 | | 09:31 (C14) | 07:33 | | 06:21 | 05:59 | | 04:53 | | 04:25 | |
| | 16:20 | 37 | 10:08 (C14) | 17:28 | | 18:28 | 20:33 | 30 | 07:32 (C13) | 21:33 | 22:10 | |
| 21 | 08:33 | | 09:31 (C14) | 07:31 | | 06:18 | 05:57 | | 04:52 | | 04:25 | |
| | 16:22 | 37 | 10:08 (C14) | 17:30 | | 18:30 | 20:35 | 28 | 07:30 (C13) | 21:35 | 22:10 | |
| 22 | 08:32 | | 09:31 (C14) | 07:28 | | 06:16 | 05:54 | | 04:50 | | 04:26 | |
| | 16:24 | 38 | 10:09 (C14) | 17:32 | | 18:32 | 20:37 | 26 | 07:29 (C13) | 21:37 | 22:10 | |
| 23 | 08:30 | | 09:31 (C14) | 07:26 | | 06:13 | 05:52 | | 04:48 | | 04:26 | |
| | 16:26 | 38 | 10:09 (C14) | 17:34 | | 18:34 | 20:39 | 23 | 07:27 (C13) | 21:38 | 22:10 | |
| 24 | 08:29 | | 09:31 (C14) | 07:23 | | 06:10 | 05:49 | | 04:47 | | 04:26 | |
| | 16:28 | 39 | 10:10 (C14) | 17:37 | | 18:36 | 20:41 | 19 | 07:25 (C13) | 21:40 | 22:10 | |
| 25 | 08:27 | | 09:31 (C14) | 07:21 | | 06:08 | 05:47 | | 04:45 | | 04:26 | |
| | 16:30 | 40 | 10:11 (C14) | 17:39 | | 18:38 | 20:43 | 15 | 07:23 (C13) | 21:42 | 22:10 | |
| 26 | 08:26 | | 09:31 (C14) | 07:18 | | 06:05 | 05:44 | | 04:44 | | 04:27 | |
| | 16:32 | 40 | 10:11 (C14) | 17:41 | | 18:41 | 20:45 | 5 | 07:17 (C13) | 21:43 | 22:10 | |
| 27 | 08:24 | | 09:31 (C14) | 07:16 | | 06:02 | 05:42 | | 04:42 | | 04:27 | |
| | 16:34 | 40 | 10:11 (C14) | 17:43 | | 18:43 | 20:47 | | 21:45 | | 22:10 | |
| 28 | 08:22 | | 08:54 (C15) | 07:13 | | 05:59 | 05:40 | | 04:41 | | 04:28 | |
| | 16:37 | 44 | 10:12 (C14) | 17:45 | | 18:45 | 20:49 | | 21:47 | | 22:10 | |
| 29 | 08:20 | | 08:52 (C15) | | | 06:57 | 05:37 | | 04:40 | | 04:29 | |
| | 16:39 | 48 | 10:12 (C14) | | | 19:47 | 20:51 | | 21:48 | | 22:10 | |
| 30 | 08:18 | | 08:50 (C15) | | | 06:54 | 05:35 | | 04:38 | | 04:29 | |
| | 16:41 | 52 | 10:12 (C14) | | | 19:49 | 20:53 | | 21:50 | | 22:09 | |
| 31 | 08:17 | | 08:48 (C15) | | | 06:51 | | | 04:37 | | | |
| | 16:43 | 54 | 10:12 (C14) | | | 19:51 | | | 21:51 | | | |
| Potential sun hours | 235 | | 266 | | | 366 | 426 | | 508 | | 529 | |
| Total, worst case | 890 | | 662 | | | | 689 | | | | | |
| Sun reduction | 0.13 | | 0.20 | | | | 0.50 | | | | | |
| Oper. time red. | 0.98 | | 0.98 | | | | 0.98 | | | | | |
| Wind dir. red. | 0.61 | | 0.60 | | | | 0.66 | | | | | |
| Total reduction | 0.08 | | 0.12 | | | | 0.31 | | | | | |
| Total, real | 68 | | 77 | | | | 216 | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Bisenieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (183)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------|----------------|----------------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:01 (C13) 18:54 | 07:17 16:36 | 08:13 (C15) 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:01 (C13) 18:51 | 07:19 16:34 | 08:12 (C15) 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:01 (C13) 18:48 | 07:21 16:32 | 08:13 (C15) 15:43 |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:01 (C13) 18:46 | 07:23 16:29 | 08:12 (C15) 15:42 |
| 5 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:02 (C13) 18:43 | 07:25 16:27 | 08:12 (C15) 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:03 (C13) 18:40 | 07:27 16:25 | 08:12 (C15) 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:03 (C13) 18:38 | 07:30 16:23 | 08:12 (C15) 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:04 (C13) 18:35 | 07:32 16:21 | 08:13 (C15) 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:06 (C13) 18:32 | 07:34 16:19 | 08:14 (C15) 15:39 |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:10 (C13) 18:30 | 07:36 16:17 | 09:41 (C14) 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:10 (C13) 18:27 | 07:38 16:15 | 09:41 (C14) 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:11 (C13) 18:25 | 07:40 16:13 | 09:41 (C14) 15:38 |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:12 (C13) 18:22 | 07:42 16:11 | 09:42 (C14) 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:12 (C13) 18:20 | 07:44 16:09 | 09:42 (C14) 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:13 (C13) 18:17 | 07:46 16:08 | 09:43 (C14) 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:14 (C13) 18:14 | 07:48 16:06 | 09:44 (C14) 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:15 (C13) 18:12 | 07:50 16:04 | 09:44 (C14) 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:16 (C13) 18:09 | 07:52 16:02 | 09:45 (C14) 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:17 (C13) 18:07 | 07:55 16:01 | 09:46 (C14) 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:18 (C13) 18:04 | 07:57 15:59 | 09:46 (C14) 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:19 (C13) 18:02 | 08:05 15:58 | 09:46 (C14) 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 07:20 (C13) 18:00 | 08:07 15:56 | 09:47 (C14) 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 07:21 (C13) 17:57 | 08:09 15:55 | 09:48 (C14) 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 07:22 (C13) 17:55 | 08:11 15:53 | 09:49 (C14) 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:04 19:10 | 07:23 (C13) 17:52 | 08:13 15:52 | 09:49 (C14) 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:05 19:07 | 07:24 (C13) 17:50 | 08:15 15:51 | 09:50 (C14) 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:06 19:04 | 07:25 (C13) 17:48 | 08:17 15:49 | 09:51 (C14) 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:07 19:02 | 07:26 (C13) 17:46 | 08:19 15:48 | 09:52 (C14) 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:08 18:59 | 07:27 (C13) 17:43 | 08:21 15:47 | 09:53 (C14) 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:09 18:56 | 07:28 (C13) 17:41 | 08:23 15:46 | 09:54 (C14) 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | 07:10 18:53 | 07:29 (C13) 17:38 | 08:25 15:44 | 09:55 (C14) 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 429 | 267 | 110 | 1322 | 140 |
| Sun reduction | | 0.50 | 0.43 | 0.26 | 0.08 | 0.07 |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | 0.66 | 0.66 | 0.60 | 0.60 | 0.61 |
| Total reduction | | 0.31 | 0.27 | 0.15 | 0.05 | 0.04 |
| Total, real | | 134 | 71 | 16 | 63 | 6 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Bisenieki 3 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (137)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | April | | | May | | | June | |
|---------------------|---------|------|-------------|----------|----------------|-------|-------|----------------|-------|--|--|-------|----------------|-------|------|-----|
| 1 | 08:51 | | | 08:15 | 08:45 (C15) | 07:11 | 06:49 | | | | | 05:33 | 06:53 (C13) | 04:36 | | |
| | 15:48 | | | 16:45 | 48 10:01 (C14) | 17:48 | 19:53 | | | | | 20:55 | 15 07:08 (C13) | 21:53 | | |
| 2 | 08:50 | | | 08:13 | 08:43 (C15) | 07:08 | 06:46 | | | | | 05:30 | 06:57 (C13) | 04:35 | | |
| | 15:49 | | | 16:48 | 52 10:01 (C14) | 17:50 | 19:55 | | | | | 20:57 | 7 07:04 (C13) | 21:54 | | |
| 3 | 08:50 | | | 08:11 | 08:41 (C15) | 07:06 | 06:43 | | | | | 05:28 | | 04:34 | | |
| | 15:51 | | | 16:50 | 57 10:02 (C14) | 17:52 | 19:57 | | | | | 21:00 | | 21:55 | | |
| 4 | 08:50 | | | 08:09 | 08:39 (C15) | 07:03 | 06:41 | | | | | 05:26 | | 04:33 | | |
| | 15:52 | | | 16:52 | 59 10:02 (C14) | 17:54 | 19:59 | | | | | 21:02 | | 21:57 | | |
| 5 | 08:49 | | | 08:07 | 08:37 (C15) | 07:01 | 06:38 | | | | | 05:23 | | 04:32 | | |
| | 15:53 | | | 16:54 | 62 10:02 (C14) | 17:56 | 20:01 | | | | | 21:04 | | 21:58 | | |
| 6 | 08:49 | | | 08:05 | 08:34 (C15) | 06:58 | 06:35 | | | | | 05:21 | | 04:31 | | |
| | 15:55 | | | 16:56 | 64 10:01 (C14) | 17:58 | 20:03 | | | | | 21:06 | | 21:59 | | |
| 7 | 08:48 | | | 08:03 | 08:34 (C15) | 06:55 | 06:33 | 07:05 (C13) | | | | 05:19 | | 04:30 | | |
| | 15:56 | | | 16:59 | 64 10:01 (C14) | 18:01 | 20:06 | 3 07:08 (C13) | | | | 21:08 | | 22:00 | | |
| 8 | 08:48 | | | 08:01 | 08:34 (C15) | 06:53 | 06:30 | 07:00 (C13) | | | | 05:17 | | 04:29 | | |
| | 15:58 | | | 17:01 | 64 10:01 (C14) | 18:03 | 20:08 | 14 07:14 (C13) | | | | 21:10 | | 22:01 | | |
| 9 | 08:47 | | | 07:58 | 08:34 (C15) | 06:50 | 06:28 | 06:56 (C13) | | | | 05:15 | | 04:29 | | |
| | 16:00 | | | 17:03 | 63 10:00 (C14) | 18:05 | 20:10 | 20 07:16 (C13) | | | | 21:12 | | 22:02 | | |
| 10 | 08:46 | | | 07:56 | 08:34 (C15) | 06:47 | 06:25 | 06:54 (C13) | | | | 05:13 | | 04:28 | | |
| | 16:01 | | | 17:05 | 62 10:00 (C14) | 18:07 | 20:12 | 23 07:17 (C13) | | | | 21:14 | | 22:03 | | |
| 11 | 08:45 | | | 07:54 | 08:35 (C15) | 06:45 | 06:22 | 06:52 (C13) | | | | 05:11 | | 04:27 | | |
| | 16:03 | | | 17:08 | 61 10:00 (C14) | 18:09 | 20:14 | 27 07:19 (C13) | | | | 21:16 | | 22:04 | | |
| 12 | 08:44 | | | 07:52 | 08:35 (C15) | 06:42 | 06:20 | 06:51 (C13) | | | | 05:09 | | 04:27 | | |
| | 16:05 | | | 17:10 | 57 09:58 (C14) | 18:11 | 20:16 | 29 07:20 (C13) | | | | 21:18 | | 22:05 | | |
| 13 | 08:43 | | | 07:50 | 08:36 (C15) | 06:40 | 06:17 | 06:50 (C13) | | | | 05:07 | | 04:26 | | |
| | 16:06 | 5 | 09:32 (C14) | 17:12 | 54 09:57 (C14) | 18:13 | 20:18 | 31 07:21 (C13) | | | | 21:20 | | 22:06 | | |
| 14 | 08:42 | | | 07:47 | 08:36 (C15) | 06:37 | 06:15 | 06:48 (C13) | | | | 05:05 | | 04:26 | | |
| | 16:08 | 13 | 09:42 (C14) | 17:14 | 50 09:56 (C14) | 18:15 | 20:20 | 33 07:21 (C13) | | | | 21:22 | | 22:07 | | |
| 15 | 08:41 | | | 07:45 | 08:37 (C15) | 06:34 | 06:12 | 06:48 (C13) | | | | 05:03 | | 04:26 | | |
| | 16:10 | 17 | 09:44 (C14) | 17:17 | 45 09:54 (C14) | 18:18 | 20:22 | 34 07:22 (C13) | | | | 21:24 | | 22:07 | | |
| 16 | 08:40 | | | 07:43 | 08:38 (C15) | 06:32 | 06:09 | 06:47 (C13) | | | | 05:01 | | 04:26 | | |
| | 16:12 | 20 | 09:46 (C14) | 17:19 | 39 09:52 (C14) | 18:20 | 20:24 | 34 07:21 (C13) | | | | 21:25 | | 22:08 | | |
| 17 | 08:39 | | | 07:40 | 08:41 (C15) | 06:29 | 06:07 | 06:47 (C13) | | | | 04:59 | | 04:25 | | |
| | 16:14 | 22 | 09:47 (C14) | 17:21 | 28 09:49 (C14) | 18:22 | 20:26 | 35 07:22 (C13) | | | | 21:27 | | 22:08 | | |
| 18 | 08:37 | | | 07:38 | 08:45 (C15) | 06:26 | 06:04 | 06:46 (C13) | | | | 04:57 | | 04:25 | | |
| | 16:16 | 25 | 09:49 (C14) | 17:23 | 9 09:44 (C14) | 18:24 | 20:28 | 35 07:21 (C13) | | | | 21:29 | | 22:09 | | |
| 19 | 08:36 | | | 07:36 | | 06:24 | 06:02 | 06:46 (C13) | | | | 04:55 | | 04:25 | | |
| | 16:18 | 27 | 09:50 (C14) | 17:26 | | 18:26 | 20:30 | 35 07:21 (C13) | | | | 21:31 | | 22:09 | | |
| 20 | 08:35 | | | 07:33 | | 06:21 | 05:59 | 06:46 (C13) | | | | 04:53 | | 04:25 | | |
| | 16:20 | 29 | 09:52 (C14) | 17:28 | | 18:28 | 20:33 | 35 07:21 (C13) | | | | 21:33 | | 22:10 | | |
| 21 | 08:33 | | | 07:31 | | 06:18 | 05:57 | 06:45 (C13) | | | | 04:52 | | 04:25 | | |
| | 16:22 | 31 | 09:53 (C14) | 17:30 | | 18:30 | 20:35 | 35 07:20 (C13) | | | | 21:35 | | 22:10 | | |
| 22 | 08:32 | | | 07:28 | | 06:16 | 05:54 | 06:46 (C13) | | | | 04:50 | | 04:26 | | |
| | 16:24 | 33 | 09:54 (C14) | 17:32 | | 18:32 | 20:37 | 34 07:20 (C13) | | | | 21:37 | | 22:10 | | |
| 23 | 08:30 | | | 07:26 | | 06:13 | 05:52 | 06:45 (C13) | | | | 04:48 | | 04:26 | | |
| | 16:26 | 34 | 09:55 (C14) | 17:34 | | 18:34 | 20:39 | 34 07:19 (C13) | | | | 21:38 | | 22:10 | | |
| 24 | 08:29 | | | 07:23 | | 06:10 | 05:49 | 06:46 (C13) | | | | 04:47 | | 04:26 | | |
| | 16:28 | 36 | 09:57 (C14) | 17:37 | | 18:36 | 20:41 | 33 07:19 (C13) | | | | 21:40 | | 22:10 | | |
| 25 | 08:27 | | | 07:21 | | 06:08 | 05:47 | 06:47 (C13) | | | | 04:45 | | 04:26 | | |
| | 16:30 | 37 | 09:58 (C14) | 17:39 | | 18:38 | 20:43 | 31 07:18 (C13) | | | | 21:42 | | 22:10 | | |
| 26 | 08:26 | | | 07:18 | | 06:05 | 05:44 | 06:47 (C13) | | | | 04:44 | | 04:27 | | |
| | 16:32 | 38 | 09:58 (C14) | 17:41 | | 18:41 | 20:45 | 29 07:16 (C13) | | | | 21:43 | | 22:10 | | |
| 27 | 08:24 | | | 07:16 | | 06:02 | 05:42 | 06:48 (C13) | | | | 04:42 | | 04:27 | | |
| | 16:34 | 39 | 09:59 (C14) | 17:43 | | 18:43 | 20:47 | 27 07:15 (C13) | | | | 21:45 | | 22:10 | | |
| 28 | 08:22 | | | 07:13 | | 05:59 | 05:40 | 06:49 (C13) | | | | 04:41 | | 04:28 | | |
| | 16:37 | 40 | 10:00 (C14) | 17:45 | | 18:45 | 20:49 | 25 07:14 (C13) | | | | 21:47 | | 22:10 | | |
| 29 | 08:20 | | | | | 06:57 | 05:37 | 06:50 (C13) | | | | 04:40 | | 04:29 | | |
| | 16:39 | 40 | 10:00 (C14) | | | 19:47 | 20:51 | 23 07:13 (C13) | | | | 21:48 | | 22:10 | | |
| 30 | 08:18 | | | | | 06:54 | 05:35 | 06:51 (C13) | | | | 04:38 | | 04:29 | | |
| | 16:41 | 41 | 10:01 (C14) | | | 19:49 | 20:53 | 19 07:10 (C13) | | | | 21:50 | | 22:09 | | |
| 31 | 08:17 | | | | | 06:51 | | | | | | 04:37 | | | | |
| | 16:43 | 42 | 10:01 (C14) | | | 19:51 | | | | | | 21:51 | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | 426 | | | | 508 | | | | 529 |
| Total, worst case | | 569 | | 938 | | | | 678 | | | | 22 | | | | |
| Sun reduction | | 0.13 | | 0.20 | | | | 0.50 | | | | 0.57 | | | | |
| Oper. time red. | | 0.98 | | 0.98 | | | | 0.98 | | | | 0.98 | | | | |
| Wind dir. red. | | 0.60 | | 0.60 | | | | 0.66 | | | | 0.66 | | | | |
| Total reduction | | 0.08 | | 0.12 | | | | 0.31 | | | | 0.36 | | | | |
| Total, real | | 43 | | 108 | | | | 212 | | | | 8 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Bisenieki 3 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (137)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|----------------|----------------|-------------------|-------------------|
| 1 | 04:30 | 05:16 | 06:17 | 06:51 (C13) | 07:17 | 07:23 |
| | 22:09 | 21:28 | 20:14 | 27 07:18 (C13) | 18:54 | 16:36 |
| 2 | 04:31 | 05:18 | 06:19 | 06:53 (C13) | 07:19 | 62 09:30 (C14) |
| | 22:08 | 21:26 | 20:11 | 23 07:16 (C13) | 18:51 | 07:25 08:03 (C15) |
| 3 | 04:32 | 05:20 | 06:21 | 06:54 (C13) | 07:21 | 64 09:30 (C14) |
| | 22:08 | 21:24 | 20:09 | 20 07:14 (C13) | 18:48 | 07:27 08:04 (C15) |
| 4 | 04:33 | 05:22 | 06:23 | 06:57 (C13) | 07:23 | 64 09:31 (C14) |
| | 22:07 | 21:22 | 20:06 | 14 07:11 (C13) | 18:46 | 07:29 08:04 (C15) |
| 5 | 04:34 | 05:23 | 06:25 | 07:02 (C13) | 07:25 | 64 09:31 (C14) |
| | 22:07 | 21:20 | 20:03 | 4 07:06 (C13) | 18:43 | 07:31 08:04 (C15) |
| 6 | 04:35 | 05:25 | 06:27 | 07:27 | 18:43 | 64 09:31 (C14) |
| | 22:06 | 21:17 | 20:01 | 18:40 | 16:27 | 07:33 08:07 (C15) |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | 62 09:32 (C14) | 15:41 |
| | 22:05 | 21:15 | 19:58 | 18:38 | 07:36 08:09 (C15) | 08:34 |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | 59 09:32 (C14) | 15:40 |
| | 22:04 | 21:13 | 19:55 | 18:35 | 07:38 08:12 (C15) | 08:35 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 55 09:32 (C14) | 15:40 |
| | 22:03 | 21:11 | 19:53 | 18:32 | 07:40 08:14 (C15) | 08:37 |
| 10 | 04:39 | 05:33 | 06:35 | 07:36 | 52 09:32 (C14) | 15:39 |
| | 22:02 | 21:08 | 19:50 | 18:30 | 07:42 08:16 (C15) | 08:38 |
| 11 | 04:41 | 05:35 | 07:04 (C13) | 06:37 | 48 09:32 (C14) | 15:39 |
| | 22:01 | 21:06 | 10 07:14 (C13) | 19:47 | 07:44 08:51 (C14) | 08:39 |
| 12 | 04:42 | 05:37 | 07:01 (C13) | 06:39 | 41 09:32 (C14) | 15:39 |
| | 22:00 | 21:04 | 16 07:17 (C13) | 19:45 | 07:46 08:51 (C14) | 08:40 |
| 13 | 04:43 | 05:39 | 06:59 (C13) | 06:41 | 41 09:32 (C14) | 15:38 |
| | 21:59 | 21:02 | 20 07:19 (C13) | 19:42 | 07:49 08:52 (C14) | 08:42 |
| 14 | 04:45 | 05:41 | 06:57 (C13) | 06:43 | 40 09:32 (C14) | 15:38 |
| | 21:58 | 20:59 | 24 07:21 (C13) | 19:39 | 07:51 08:52 (C14) | 08:43 |
| 15 | 04:46 | 05:43 | 06:56 (C13) | 06:45 | 39 09:31 (C14) | 15:38 |
| | 21:57 | 20:57 | 26 07:22 (C13) | 19:37 | 07:53 08:52 (C14) | 08:44 |
| 16 | 04:48 | 05:45 | 06:55 (C13) | 06:47 | 39 09:31 (C14) | 15:38 |
| | 21:55 | 20:54 | 28 07:23 (C13) | 19:34 | 07:55 08:53 (C14) | 08:45 |
| 17 | 04:49 | 05:47 | 06:54 (C13) | 06:49 | 38 09:31 (C14) | 15:38 |
| | 21:54 | 20:52 | 30 07:24 (C13) | 19:31 | 07:57 08:54 (C14) | 08:46 |
| 18 | 04:51 | 05:49 | 06:52 (C13) | 06:51 | 37 09:31 (C14) | 15:38 |
| | 21:52 | 20:50 | 32 07:24 (C13) | 19:29 | 07:59 08:55 (C14) | 08:46 |
| 19 | 04:53 | 05:51 | 06:52 (C13) | 06:53 | 36 09:31 (C14) | 15:38 |
| | 21:51 | 20:47 | 32 07:24 (C13) | 19:26 | 08:01 08:56 (C14) | 08:47 |
| 20 | 04:54 | 05:53 | 06:51 (C13) | 06:55 | 34 09:30 (C14) | 15:38 |
| | 21:49 | 20:45 | 34 07:25 (C13) | 19:23 | 08:03 08:56 (C14) | 08:48 |
| 21 | 04:56 | 05:55 | 06:51 (C13) | 06:57 | 33 09:29 (C14) | 15:39 |
| | 21:48 | 20:42 | 34 07:25 (C13) | 19:21 | 08:05 08:57 (C14) | 08:48 |
| 22 | 04:58 | 05:57 | 06:50 (C13) | 06:59 | 31 09:28 (C14) | 15:39 |
| | 21:46 | 20:40 | 35 07:25 (C13) | 19:18 | 08:07 08:59 (C14) | 08:49 |
| 23 | 04:59 | 05:59 | 06:50 (C13) | 07:01 | 29 09:28 (C14) | 15:40 |
| | 21:45 | 20:37 | 35 07:25 (C13) | 19:15 | 08:09 09:00 (C14) | 08:50 |
| 24 | 05:01 | 06:01 | 06:50 (C13) | 07:03 | 28 09:28 (C14) | 15:40 |
| | 21:43 | 20:35 | 35 07:25 (C13) | 19:12 | 08:05 09:01 (C14) | 08:50 |
| 25 | 05:03 | 06:03 | 06:50 (C13) | 07:05 | 17 10:16 (C14) | 15:41 |
| | 21:41 | 20:32 | 35 07:25 (C13) | 19:10 | 08:09 08:13 | 09:03 (C14) |
| 26 | 05:05 | 06:05 | 06:50 (C13) | 07:07 | 31 09:19 (C14) | 15:41 |
| | 21:39 | 20:30 | 34 07:24 (C13) | 19:07 | 08:15 08:15 | 09:04 (C14) |
| 27 | 05:06 | 06:07 | 06:49 (C13) | 07:09 | 41 09:23 (C14) | 15:42 |
| | 21:38 | 20:27 | 34 07:23 (C13) | 19:04 | 08:17 08:17 | 09:07 (C14) |
| 28 | 05:08 | 06:09 | 06:49 (C13) | 07:11 | 46 09:24 (C14) | 15:43 |
| | 21:36 | 20:24 | 33 07:22 (C13) | 19:02 | 08:19 08:19 | 09:09 (C14) |
| 29 | 05:10 | 06:11 | 06:49 (C13) | 07:13 | 51 09:25 (C14) | 15:44 |
| | 21:34 | 20:22 | 33 07:22 (C13) | 18:59 | 08:21 08:21 | 09:13 (C14) |
| 30 | 05:12 | 06:13 | 06:50 (C13) | 07:15 | 55 09:27 (C14) | 15:45 |
| | 21:32 | 20:19 | 31 07:21 (C13) | 18:56 | 08:22 08:22 | 09:14 (C14) |
| 31 | 05:14 | 06:15 | 06:51 (C13) | | 58 09:28 (C14) | 15:46 |
| | 21:30 | 20:17 | 28 07:19 (C13) | | 08:03 (C15) | 08:51 |
| Potential sun hours | 529 | 469 | 385 | 324 | 60 09:28 (C14) | 15:47 |
| Total, worst case | | | | | 247 | 216 |
| Sun reduction | | 619 | 88 | | | |
| Oper. time red. | | 0.50 | 0.43 | | | |
| Wind dir. red. | | 0.98 | 0.98 | | | |
| Total reduction | | 0.66 | 0.66 | | | |
| Total, real | | 0.31 | 0.27 | | | |
| | | 193 | 24 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Bites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (73)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Brivares - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (21)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:50 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:04 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:08 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Berzkalnes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (195)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:49 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:05 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:13 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Caunes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (119)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 04:57 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Cerini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (69)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 06:50 (C14) 18:54 | 07:17 16:36 | 07:23 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 06:50 (C14) 18:51 | 07:19 16:34 | 07:25 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 06:51 (C14) 18:48 | 07:21 16:32 | 07:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 06:53 (C14) 18:46 | 07:23 16:30 | 07:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 06:55 (C14) 18:43 | 07:26 16:27 | 07:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 06:57 (C14) 18:40 | 07:28 16:25 | 07:33 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 06:58 (C14) 18:38 | 07:30 16:23 | 07:36 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:00 (C14) 18:35 | 07:32 16:21 | 07:38 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:01 (C14) 18:33 | 07:34 16:19 | 07:40 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:06 (C14) 18:30 | 07:36 16:17 | 07:42 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:03 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:07 (C14) 18:27 | 07:38 16:15 | 07:44 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:08 (C14) 18:25 | 07:40 16:13 | 07:46 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:09 (C14) 18:22 | 07:42 16:11 | 07:49 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:10 (C14) 18:20 | 07:44 16:10 | 07:51 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:11 (C14) 18:17 | 07:46 16:08 | 07:53 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:12 (C14) 18:15 | 07:48 16:06 | 07:55 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:13 (C14) 18:12 | 07:50 16:04 | 07:57 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:14 (C14) 18:10 | 07:53 16:03 | 07:59 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:15 (C14) 18:07 | 07:55 16:01 | 08:01 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:16 (C14) 18:05 | 07:57 15:59 | 08:03 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:17 (C14) 18:02 | 07:59 15:58 | 08:05 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 07:18 (C14) 18:00 | 08:01 15:56 | 08:07 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 07:19 (C14) 18:03 | 08:02 15:55 | 08:09 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 06:58 (C14) 18:05 | 08:05 15:53 | 08:11 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 06:56 (C14) 18:07 | 08:07 15:52 | 08:13 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 06:55 (C14) 18:07 | 08:08 15:51 | 08:14 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 06:54 (C14) 18:04 | 08:09 15:50 | 08:15 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 06:52 (C14) 18:02 | 08:10 15:48 | 08:16 15:44 |
| 29 | 08:20 16:39 | 07:07 17:47 | 05:57 18:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 06:51 (C14) 18:01 | 08:11 15:47 | 08:17 15:45 |
| 30 | 08:19 16:41 | 07:04 17:49 | 05:54 18:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 06:50 (C14) 18:00 | 08:12 15:46 | 08:18 15:46 |
| 31 | 08:17 16:43 | 07:02 17:51 | 05:52 18:51 | 05:32 20:53 | 04:37 21:51 | 04:29 22:10 | 05:14 21:30 | 06:15 20:17 | 07:17 19:03 | 06:50 (C14) 18:00 | 08:13 15:47 | 08:19 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | 270 | | | | 152 | 119 | | | |
| Sun reduction | | | | 0.50 | | | | 0.50 | 0.43 | | | |
| Oper. time red. | | | | 0.98 | | | | 0.98 | 0.98 | | | |
| Wind dir. red. | | | | 0.66 | | | | 0.66 | 0.66 | | | |
| Total reduction | | | | 0.32 | | | | 0.32 | 0.28 | | | |
| Total, real | | | | 87 | | | | 49 | 33 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Cuculi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (169)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|--|-------------|-------|-------------|-------|-----|-------|--|------|--|--|
| 1 | 08:51 | | 09:56 (C14) | 08:15 | | 09:13 (C15) | 07:11 | | 06:49 | | 08:10 (C13) | 05:33 | | 04:36 | | | | |
| | 15:48 | 33 | 10:29 (C14) | 16:45 | 13 | 09:26 (C15) | 17:48 | | 19:53 | 10 | 08:20 (C13) | 20:55 | | 21:53 | | | | |
| 2 | 08:50 | | 09:57 (C14) | 08:13 | | 09:15 (C15) | 07:08 | | 06:46 | | | 05:30 | | 04:35 | | | | |
| | 15:49 | 33 | 10:30 (C14) | 16:48 | 9 | 09:24 (C15) | 17:50 | | 19:55 | | | 20:58 | | 21:54 | | | | |
| 3 | 08:50 | | 09:57 (C14) | 08:11 | | | 07:06 | | 06:43 | | | 05:28 | | 04:34 | | | | |
| | 15:51 | 33 | 10:30 (C14) | 16:50 | | | 17:52 | | 19:57 | | | 21:00 | | 21:55 | | | | |
| 4 | 08:50 | | 09:57 (C14) | 08:09 | | | 07:03 | | 06:41 | | | 05:26 | | 04:33 | | | | |
| | 15:52 | 33 | 10:30 (C14) | 16:52 | | | 17:54 | | 19:59 | | | 21:02 | | 21:57 | | | | |
| 5 | 08:49 | | 09:58 (C14) | 08:07 | | | 07:01 | | 06:38 | | | 05:23 | | 04:32 | | | | |
| | 15:53 | 33 | 10:31 (C14) | 16:54 | | | 17:56 | | 20:01 | | | 21:04 | | 21:58 | | | | |
| 6 | 08:49 | | 09:59 (C14) | 08:05 | | | 06:58 | | 06:35 | | | 05:21 | | 04:31 | | | | |
| | 15:55 | 32 | 10:31 (C14) | 16:56 | | | 17:58 | | 20:03 | | | 21:06 | | 21:59 | | | | |
| 7 | 08:48 | | 09:59 (C14) | 08:03 | | | 06:55 | | 06:33 | | | 05:19 | | 04:30 | | | | |
| | 15:56 | 33 | 10:32 (C14) | 16:59 | | | 18:01 | | 20:06 | | | 21:08 | | 22:00 | | | | |
| 8 | 08:48 | | 09:59 (C14) | 08:01 | | | 06:53 | | 06:30 | | | 05:17 | | 04:29 | | | | |
| | 15:58 | 33 | 10:32 (C14) | 17:01 | | | 18:03 | | 20:08 | | | 21:10 | | 22:01 | | | | |
| 9 | 08:47 | | 10:00 (C14) | 07:58 | | | 06:50 | | 06:28 | | | 05:15 | | 04:29 | | | | |
| | 16:00 | 32 | 10:32 (C14) | 17:03 | | | 18:05 | | 20:10 | | | 21:12 | | 22:02 | | | | |
| 10 | 08:46 | | 10:00 (C14) | 07:56 | | | 06:47 | | 06:25 | | | 05:13 | | 04:28 | | | | |
| | 16:01 | 33 | 10:33 (C14) | 17:05 | | | 18:07 | | 20:12 | | | 21:14 | | 22:03 | | | | |
| 11 | 08:45 | | 10:01 (C14) | 07:54 | | | 06:45 | | 07:17 (C13) | | 06:22 | 05:11 | | 04:27 | | | | |
| | 16:03 | 32 | 10:33 (C14) | 17:08 | | 9 | 18:09 | | 07:26 (C13) | | 20:14 | 21:16 | | 22:04 | | | | |
| 12 | 08:44 | | 10:01 (C14) | 07:52 | | | 06:42 | | 07:13 (C13) | | 06:20 | 05:09 | | 04:27 | | | | |
| | 16:05 | 33 | 10:34 (C14) | 17:10 | | 17 | 18:11 | | 07:30 (C13) | | 20:16 | 21:18 | | 22:05 | | | | |
| 13 | 08:43 | | 10:01 (C14) | 07:50 | | | 06:40 | | 07:10 (C13) | | 06:17 | 05:07 | | 04:26 | | | | |
| | 16:06 | 32 | 10:33 (C14) | 17:12 | | 22 | 18:13 | | 07:32 (C13) | | 20:18 | 21:20 | | 22:06 | | | | |
| 14 | 08:42 | | 09:18 (C15) | 07:47 | | | 06:37 | | 07:08 (C13) | | 06:15 | 05:05 | | 04:26 | | | | |
| | 16:08 | 34 | 10:34 (C14) | 17:14 | | 25 | 18:15 | | 07:33 (C13) | | 20:20 | 21:22 | | 22:07 | | | | |
| 15 | 08:41 | | 09:16 (C15) | 07:45 | | | 06:34 | | 07:07 (C13) | | 06:12 | 05:03 | | 04:26 | | | | |
| | 16:10 | 37 | 10:34 (C14) | 17:17 | | 28 | 18:18 | | 07:35 (C13) | | 20:22 | 21:24 | | 22:07 | | | | |
| 16 | 08:40 | | 09:15 (C15) | 07:43 | | | 06:32 | | 07:06 (C13) | | 06:09 | 05:01 | | 04:26 | | | | |
| | 16:12 | 39 | 10:34 (C14) | 17:19 | | 29 | 18:20 | | 07:35 (C13) | | 20:24 | 21:25 | | 22:08 | | | | |
| 17 | 08:39 | | 09:14 (C15) | 07:40 | | | 06:29 | | 07:04 (C13) | | 06:07 | 04:59 | | 04:25 | | | | |
| | 16:14 | 42 | 10:35 (C14) | 17:21 | | 32 | 18:22 | | 07:36 (C13) | | 20:26 | 21:27 | | 22:08 | | | | |
| 18 | 08:38 | | 09:12 (C15) | 07:38 | | | 06:26 | | 07:03 (C13) | | 06:04 | 04:57 | | 04:25 | | | | |
| | 16:16 | 42 | 10:34 (C14) | 17:23 | | 33 | 18:24 | | 07:36 (C13) | | 20:28 | 21:29 | | 22:09 | | | | |
| 19 | 08:36 | | 09:10 (C15) | 07:36 | | | 06:24 | | 07:03 (C13) | | 06:02 | 04:55 | | 04:25 | | | | |
| | 16:18 | 45 | 10:34 (C14) | 17:26 | | 33 | 18:26 | | 07:36 (C13) | | 20:30 | 21:31 | | 22:09 | | | | |
| 20 | 08:35 | | 09:09 (C15) | 07:33 | | | 06:21 | | 07:02 (C13) | | 05:59 | 04:53 | | 04:25 | | | | |
| | 16:20 | 46 | 10:34 (C14) | 17:28 | | 34 | 18:28 | | 07:36 (C13) | | 20:33 | 21:33 | | 22:10 | | | | |
| 21 | 08:33 | | 09:07 (C15) | 07:31 | | | 06:18 | | 07:01 (C13) | | 05:57 | 04:52 | | 04:25 | | | | |
| | 16:22 | 46 | 10:33 (C14) | 17:30 | | 35 | 18:30 | | 07:36 (C13) | | 20:35 | 21:35 | | 22:10 | | | | |
| 22 | 08:32 | | 09:07 (C15) | 07:28 | | | 06:16 | | 07:02 (C13) | | 05:54 | 04:50 | | 04:26 | | | | |
| | 16:24 | 46 | 10:33 (C14) | 17:32 | | 34 | 18:32 | | 07:36 (C13) | | 20:37 | 21:37 | | 22:10 | | | | |
| 23 | 08:30 | | 09:07 (C15) | 07:26 | | | 06:13 | | 07:01 (C13) | | 05:52 | 04:48 | | 04:26 | | | | |
| | 16:26 | 44 | 10:32 (C14) | 17:34 | | 34 | 18:34 | | 07:35 (C13) | | 20:39 | 21:38 | | 22:10 | | | | |
| 24 | 08:29 | | 09:08 (C15) | 07:23 | | | 06:10 | | 07:01 (C13) | | 05:49 | 04:47 | | 04:26 | | | | |
| | 16:28 | 42 | 10:32 (C14) | 17:37 | | 33 | 18:36 | | 07:34 (C13) | | 20:41 | 21:40 | | 22:10 | | | | |
| 25 | 08:27 | | 09:08 (C15) | 07:21 | | | 06:08 | | 07:02 (C13) | | 05:47 | 04:45 | | 04:26 | | | | |
| | 16:30 | 38 | 10:30 (C14) | 17:39 | | 32 | 18:38 | | 07:34 (C13) | | 20:43 | 21:42 | | 22:10 | | | | |
| 26 | 08:26 | | 09:08 (C15) | 07:18 | | | 06:05 | | 07:02 (C13) | | 05:44 | 04:44 | | 04:27 | | | | |
| | 16:32 | 34 | 10:28 (C14) | 17:41 | | 31 | 18:41 | | 07:33 (C13) | | 20:45 | 21:43 | | 22:10 | | | | |
| 27 | 08:24 | | 09:08 (C15) | 07:16 | | | 06:02 | | 07:02 (C13) | | 05:42 | 04:42 | | 04:27 | | | | |
| | 16:34 | 27 | 10:25 (C14) | 17:43 | | 29 | 18:43 | | 07:31 (C13) | | 20:47 | 21:45 | | 22:10 | | | | |
| 28 | 08:22 | | 09:09 (C15) | 07:13 | | | 05:59 | | 07:03 (C13) | | 05:40 | 04:41 | | 04:28 | | | | |
| | 16:37 | 20 | 09:29 (C15) | 17:45 | | 28 | 18:45 | | 07:31 (C13) | | 20:49 | 21:47 | | 22:10 | | | | |
| 29 | 08:20 | | 09:10 (C15) | | | | 06:57 | | 08:04 (C13) | | 05:37 | 04:40 | | 04:29 | | | | |
| | 16:39 | 19 | 09:29 (C15) | | | 25 | 19:47 | | 08:29 (C13) | | 20:51 | 21:48 | | 22:10 | | | | |
| 30 | 08:19 | | 09:11 (C15) | | | | 06:54 | | 08:05 (C13) | | 05:35 | 04:38 | | 04:29 | | | | |
| | 16:41 | 17 | 09:28 (C15) | | | 21 | 19:49 | | 08:26 (C13) | | 20:53 | 21:50 | | 22:09 | | | | |
| 31 | 08:17 | | 09:12 (C15) | | | | 06:51 | | 08:07 (C13) | | | 04:37 | | | | | | |
| | 16:43 | 16 | 09:28 (C15) | | | 17 | 19:51 | | 08:24 (C13) | | | 21:51 | | | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | 426 | | | 508 | | 529 | | | | |
| Total, worst case | 1059 | | | 22 | | | 581 | | 10 | | | | | | | | | |
| Sun reduction | 0.13 | | | 0.20 | | | 0.41 | | 0.50 | | | | | | | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | 0.98 | | 0.98 | | | | | | | | | |
| Wind dir. red. | 0.61 | | | 0.59 | | | 0.63 | | 0.63 | | | | | | | | | |
| Total reduction | 0.08 | | | 0.11 | | | 0.25 | | 0.30 | | | | | | | | | |
| Total, real | 83 | | | 3 | | | 145 | | 3 | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Cuculi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (169)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | | November | December |
|---------------------|-------|--------|-----------|----------------|----------------|----------|----------|
| 1 | 04:30 | 05:16 | 06:17 | 07:17 | 07:51 (C13) | 07:23 | 08:24 |
| | 22:09 | 21:28 | 20:14 | 18:54 | 19 08:10 (C13) | 16:36 | 15:45 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 07:54 (C13) | 07:25 | 08:26 |
| | 22:09 | 21:26 | 20:11 | 18:51 | 13 08:07 (C13) | 16:34 | 15:44 |
| 3 | 04:32 | 05:20 | 06:21 | 07:21 | | 07:27 | 08:28 |
| | 22:08 | 21:24 | 20:09 | 18:48 | | 16:32 | 15:43 |
| 4 | 04:33 | 05:21 | 06:23 | 07:23 | | 07:29 | 08:29 |
| | 22:07 | 21:22 | 20:06 | 18:46 | | 16:29 | 15:42 |
| 5 | 04:34 | 05:23 | 06:25 | 07:25 | | 07:31 | 08:31 |
| | 22:07 | 21:20 | 20:03 | 18:43 | | 16:27 | 15:42 |
| 6 | 04:35 | 05:25 | 06:27 | 07:27 | | 07:33 | 08:32 |
| | 22:06 | 21:17 | 20:01 | 18:40 | | 16:25 | 15:41 |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | | 07:36 | 08:34 |
| | 22:05 | 21:15 | 19:58 | 18:38 | | 16:23 | 15:40 |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | | 07:38 | 08:35 |
| | 22:04 | 21:13 | 19:55 | 18:35 | | 16:21 | 15:40 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | | 07:40 | 08:37 |
| | 22:03 | 21:11 | 19:53 | 18:32 | | 16:19 | 15:39 |
| 10 | 04:39 | 05:33 | 06:35 | 07:36 | | 07:42 | 08:38 |
| | 22:02 | 21:08 | 19:50 | 18:30 | | 16:17 | 15:39 |
| 11 | 04:41 | 05:35 | 06:37 | 08:03 (C13) | 07:38 | 07:44 | 08:39 |
| | 22:01 | 21:06 | 19:47 | 8 08:11 (C13) | 18:27 | 16:15 | 15:39 |
| 12 | 04:42 | 05:37 | 06:39 | 07:59 (C13) | 07:40 | 07:46 | 08:40 |
| | 22:00 | 21:04 | 19:45 | 16 08:15 (C13) | 18:25 | 16:13 | 15:38 |
| 13 | 04:43 | 05:39 | 06:41 | 07:56 (C13) | 07:42 | 07:49 | 08:42 |
| | 21:59 | 21:02 | 19:42 | 21 08:17 (C13) | 18:22 | 16:11 | 15:38 |
| 14 | 04:45 | 05:41 | 06:43 | 07:54 (C13) | 07:44 | 07:51 | 08:41 |
| | 21:58 | 20:59 | 19:39 | 25 08:19 (C13) | 18:20 | 16:09 | 15:38 |
| 15 | 04:46 | 05:43 | 06:45 | 07:53 (C13) | 07:46 | 07:53 | 08:40 |
| | 21:57 | 20:57 | 19:37 | 27 08:20 (C13) | 18:17 | 16:08 | 15:38 |
| 16 | 04:48 | 05:45 | 06:47 | 07:51 (C13) | 07:48 | 07:55 | 08:41 |
| | 21:55 | 20:54 | 19:34 | 30 08:21 (C13) | 18:14 | 16:06 | 15:38 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 (C13) | 07:50 | 07:57 | 08:41 |
| | 21:54 | 20:52 | 19:31 | 31 08:21 (C13) | 18:12 | 16:04 | 15:38 |
| 18 | 04:51 | 05:49 | 06:51 | 07:49 (C13) | 07:52 | 07:59 | 08:42 |
| | 21:52 | 20:50 | 19:29 | 33 08:22 (C13) | 18:09 | 16:02 | 15:38 |
| 19 | 04:53 | 05:51 | 06:53 | 07:48 (C13) | 07:55 | 08:01 | 08:42 |
| | 21:51 | 20:47 | 19:26 | 34 08:22 (C13) | 18:07 | 16:01 | 15:38 |
| 20 | 04:54 | 05:53 | 06:55 | 07:48 (C13) | 07:57 | 08:03 | 08:42 |
| | 21:49 | 20:45 | 19:23 | 34 08:22 (C13) | 18:04 | 15:59 | 15:39 |
| 21 | 04:56 | 05:55 | 06:57 | 07:47 (C13) | 07:59 | 08:05 | 08:42 |
| | 21:48 | 20:42 | 19:21 | 35 08:22 (C13) | 18:02 | 15:58 | 15:39 |
| 22 | 04:58 | 05:57 | 06:59 | 07:47 (C13) | 08:01 | 08:07 | 08:45 |
| | 21:46 | 20:40 | 19:18 | 34 08:21 (C13) | 18:00 | 15:56 | 15:39 |
| 23 | 04:59 | 05:59 | 07:01 | 07:47 (C13) | 08:03 | 08:09 | 08:47 |
| | 21:45 | 20:37 | 19:15 | 34 08:21 (C13) | 17:57 | 15:55 | 15:40 |
| 24 | 05:01 | 06:01 | 07:03 | 07:46 (C13) | 08:05 | 08:11 | 08:49 |
| | 21:43 | 20:35 | 19:12 | 34 08:20 (C13) | 17:55 | 15:53 | 15:41 |
| 25 | 05:03 | 06:03 | 07:05 | 07:47 (C13) | 07:07 | 08:13 | 08:51 |
| | 21:41 | 20:32 | 19:10 | 33 08:20 (C13) | 16:52 | 15:52 | 15:41 |
| 26 | 05:05 | 06:05 | 07:07 | 07:47 (C13) | 07:10 | 08:15 | 08:53 |
| | 21:39 | 20:30 | 19:07 | 32 08:19 (C13) | 16:50 | 15:51 | 15:42 |
| 27 | 05:06 | 06:07 | 07:09 | 07:47 (C13) | 07:12 | 08:17 | 08:56 |
| | 21:38 | 20:27 | 19:04 | 30 08:17 (C13) | 16:48 | 15:49 | 15:43 |
| 28 | 05:08 | 06:09 | 07:11 | 07:48 (C13) | 07:14 | 08:19 | 08:58 |
| | 21:36 | 20:24 | 19:02 | 28 08:16 (C13) | 16:45 | 15:48 | 15:44 |
| 29 | 05:10 | 06:11 | 07:13 | 07:48 (C13) | 07:16 | 08:21 | 09:42 |
| | 21:34 | 20:22 | 18:59 | 27 08:15 (C13) | 16:43 | 15:47 | 15:45 |
| 30 | 05:12 | 06:13 | 07:15 | 07:50 (C13) | 07:18 | 08:22 | 09:43 |
| | 21:32 | 20:19 | 18:56 | 23 08:13 (C13) | 16:41 | 15:46 | 15:46 |
| 31 | 05:14 | 06:15 | | 07:20 | | | 08:51 |
| | 21:30 | 20:17 | | 16:38 | | | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | | 247 | 216 |
| Total, worst case | | | 569 | | 32 | 722 | 990 |
| Sun reduction | | | 0.43 | | 0.26 | 0.08 | 0.07 |
| Oper. time red. | | | 0.98 | | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | 0.63 | | 0.63 | 0.60 | 0.61 |
| Total reduction | | | 0.26 | | 0.16 | 0.05 | 0.04 |
| Total, real | | | 148 | | 5 | 35 | 41 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Daugavas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (30)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:46 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:44 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:24 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:28 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:32 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:12 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:26 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:00 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:08 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:10 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Dimanti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (145)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Dravnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (104)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|---------------------|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------|
| 1 | 08:51 15:48 9 | 14:07 (C17) 14:16 (C17) 16:45 | 08:15 07:11 17:47 | 06:48 19:53 20:55 | 05:32 20:55 21:53 | 04:35 21:53 22:09 | 04:30 22:09 21:28 | 05:15 21:28 20:14 | 06:17 20:14 18:53 | 07:17 18:53 16:36 | 07:22 16:36 15:45 | |
| 2 | 08:50 15:49 7 | 14:09 (C17) 16:47 17:49 | 08:13 16:47 17:49 | 06:46 19:55 20:57 | 05:30 20:57 21:54 | 04:34 22:09 21:26 | 04:30 21:26 20:11 | 05:17 20:11 18:51 | 06:19 18:51 16:33 | 07:19 16:33 15:44 | 07:25 15:44 15:43 | |
| 3 | 08:50 15:50 3 | 14:11 (C17) 16:49 17:52 | 08:11 16:49 17:52 | 06:43 19:57 20:59 | 05:28 20:59 21:55 | 04:33 22:08 21:24 | 04:31 21:24 20:09 | 05:19 20:09 18:48 | 06:21 18:48 16:31 | 07:21 16:31 15:43 | 07:27 15:43 15:43 | |
| 4 | 08:50 15:52 | 14:14 (C17) 16:49 17:52 | 08:09 16:52 17:54 | 06:40 19:59 21:02 | 05:25 21:02 21:57 | 04:32 22:07 21:22 | 04:32 21:22 20:06 | 05:21 20:06 18:45 | 06:23 18:45 16:29 | 07:23 16:29 15:42 | 07:29 15:42 15:42 | |
| 5 | 08:49 15:53 | 14:14 (C17) 16:54 17:56 | 08:07 16:54 17:56 | 06:38 20:01 21:04 | 05:23 21:04 21:58 | 04:31 22:07 21:19 | 04:33 21:19 20:03 | 05:23 20:03 18:43 | 06:25 18:43 16:27 | 07:25 16:27 15:41 | 07:31 15:41 15:41 | |
| 6 | 08:49 15:54 | 14:14 (C17) 16:56 17:58 | 08:05 16:56 17:58 | 06:35 20:03 21:06 | 05:21 21:06 21:59 | 04:30 22:06 21:17 | 04:34 21:17 20:01 | 05:25 20:01 18:40 | 06:27 18:40 16:25 | 07:27 16:25 15:40 | 07:33 15:40 15:40 | |
| 7 | 08:48 15:56 | 14:14 (C17) 16:58 18:00 | 08:03 16:58 18:00 | 06:33 20:05 21:08 | 05:19 21:08 22:00 | 04:30 22:00 21:15 | 04:35 21:15 20:05 | 05:27 20:05 19:58 | 06:29 19:58 18:37 | 07:29 18:37 16:23 | 07:36 16:23 15:40 | |
| 8 | 08:48 15:57 | 14:14 (C17) 17:01 18:02 | 08:00 17:01 18:02 | 06:30 20:07 21:10 | 05:16 21:10 22:01 | 04:29 22:01 21:13 | 04:36 21:13 20:05 | 05:29 20:05 19:55 | 06:31 19:55 18:35 | 07:31 18:35 16:21 | 07:38 16:21 15:39 | |
| 9 | 08:47 15:59 | 14:14 (C17) 17:03 18:05 | 07:58 17:03 18:05 | 06:27 20:09 21:12 | 05:14 21:12 22:02 | 04:28 22:02 21:11 | 04:38 21:11 20:03 | 05:31 20:03 19:53 | 06:33 19:53 18:32 | 07:33 18:32 16:19 | 07:40 16:19 15:39 | 14:01 (C17) |
| 10 | 08:46 16:01 | 14:14 (C17) 17:05 18:07 | 07:56 17:05 18:07 | 06:25 20:12 21:14 | 05:12 21:14 22:03 | 04:27 22:03 21:11 | 04:39 21:11 20:03 | 05:33 20:03 19:50 | 06:35 19:50 18:30 | 07:36 18:30 16:17 | 07:42 16:17 15:38 | 2 14:03 (C17) |
| 11 | 08:45 16:02 | 14:14 (C17) 17:07 18:09 | 07:54 17:07 18:09 | 06:22 20:14 21:16 | 05:10 21:16 22:04 | 04:27 22:04 21:11 | 04:40 21:11 20:05 | 05:35 20:05 19:47 | 06:37 19:47 18:27 | 07:38 18:27 16:15 | 07:44 16:15 15:38 | 6 14:05 (C17) |
| 12 | 08:44 16:04 | 14:14 (C17) 17:10 18:11 | 07:52 17:10 18:11 | 06:19 20:16 21:18 | 05:08 21:18 22:05 | 04:26 22:05 21:13 | 04:42 21:13 20:07 | 05:37 20:07 19:45 | 06:39 19:45 18:24 | 07:40 18:24 16:13 | 07:46 16:13 15:38 | 8 14:06 (C17) |
| 13 | 08:43 16:06 | 14:14 (C17) 17:12 18:13 | 07:50 17:12 18:13 | 06:17 20:18 21:20 | 05:06 21:20 22:06 | 04:26 22:06 21:15 | 04:43 21:15 20:09 | 05:39 20:09 19:42 | 06:41 19:42 18:22 | 07:42 18:22 16:11 | 07:49 16:11 15:38 | 10 14:08 (C17) |
| 14 | 08:42 16:08 | 14:14 (C17) 17:14 18:15 | 07:49 17:14 18:15 | 06:16 20:20 21:22 | 05:04 21:22 22:07 | 04:26 22:07 21:15 | 04:44 21:15 20:09 | 05:41 20:09 19:39 | 06:43 19:39 18:19 | 07:44 18:19 16:09 | 07:51 16:09 15:37 | 11 14:09 (C17) |
| 15 | 08:41 16:10 | 14:14 (C17) 17:16 18:17 | 07:47 17:16 18:17 | 06:14 20:22 21:24 | 05:02 21:24 22:07 | 04:25 22:07 21:15 | 04:46 21:15 20:07 | 05:43 20:07 19:36 | 06:45 19:36 18:17 | 07:46 18:17 16:07 | 07:53 16:07 15:37 | 12 14:10 (C17) |
| 16 | 08:40 16:11 | 14:14 (C17) 17:19 18:19 | 07:45 17:19 18:19 | 06:12 20:24 21:25 | 05:02 21:25 22:08 | 04:25 22:08 21:15 | 04:46 21:15 20:09 | 05:43 20:09 19:34 | 06:45 19:34 18:14 | 07:46 18:14 16:05 | 07:53 16:05 15:37 | 13 14:11 (C17) |
| 17 | 08:39 16:13 | 14:14 (C17) 17:21 18:22 | 07:44 17:21 18:22 | 06:10 20:26 21:27 | 05:00 21:27 22:09 | 04:25 22:09 21:15 | 04:49 21:15 20:09 | 05:47 20:09 19:31 | 06:49 19:31 18:12 | 07:50 18:12 16:04 | 07:57 16:04 15:37 | 14 14:12 (C17) |
| 18 | 08:37 16:15 | 14:14 (C17) 17:23 18:24 | 07:42 17:23 18:24 | 06:08 20:28 21:29 | 04:56 21:29 22:09 | 04:25 22:09 21:15 | 04:50 21:15 20:09 | 05:49 20:09 19:28 | 06:51 19:28 18:09 | 07:52 18:09 16:02 | 07:59 16:02 15:38 | 15 14:13 (C17) |
| 19 | 08:36 16:17 | 14:14 (C17) 17:25 18:26 | 07:40 17:25 18:26 | 06:06 20:30 21:31 | 04:54 21:31 22:09 | 04:25 22:09 21:15 | 04:52 21:15 20:09 | 05:51 20:09 19:26 | 06:53 19:26 18:07 | 07:54 18:07 16:00 | 08:01 16:00 15:38 | 16 14:14 (C17) |
| 20 | 08:35 16:19 | 14:14 (C17) 17:27 18:28 | 07:39 17:27 18:28 | 06:04 20:32 21:33 | 04:52 21:33 22:10 | 04:25 22:10 21:15 | 04:54 21:15 20:09 | 05:53 20:09 19:23 | 06:55 19:23 18:04 | 07:57 18:04 16:00 | 08:03 16:00 15:38 | 17 14:15 (C17) |
| 21 | 08:33 16:21 | 14:14 (C17) 17:30 18:30 | 07:37 17:30 18:30 | 06:02 20:35 21:35 | 04:50 21:35 22:10 | 04:25 22:10 21:15 | 04:55 21:15 20:09 | 05:55 20:09 19:20 | 06:57 19:20 18:02 | 07:59 18:02 16:00 | 08:05 16:00 15:39 | 18 14:16 (C17) |
| 22 | 08:32 16:23 | 14:14 (C17) 17:32 18:32 | 07:35 17:32 18:32 | 06:00 20:37 21:37 | 04:48 21:37 22:10 | 04:25 22:10 21:15 | 04:57 21:15 20:09 | 05:57 20:09 19:18 | 06:59 19:18 17:59 | 07:01 17:59 16:00 | 08:07 16:00 15:39 | 19 14:17 (C17) |
| 23 | 08:30 16:25 | 14:14 (C17) 17:34 18:34 | 07:33 17:34 18:34 | 05:58 20:39 21:38 | 04:46 21:38 22:10 | 04:25 22:10 21:15 | 04:59 21:15 20:09 | 05:59 20:09 19:15 | 07:01 19:15 17:57 | 07:03 17:57 16:00 | 08:09 16:00 15:39 | 20 14:18 (C17) |
| 24 | 08:29 16:27 | 14:14 (C17) 17:36 18:36 | 07:31 17:36 18:36 | 05:56 20:41 21:40 | 04:44 21:40 22:10 | 04:26 22:10 21:15 | 05:00 21:15 20:09 | 06:01 20:09 19:12 | 07:03 19:12 17:54 | 07:05 17:54 16:00 | 08:11 16:00 15:40 | 21 14:19 (C17) |
| 25 | 08:27 16:30 | 14:14 (C17) 17:38 18:38 | 07:29 17:38 18:38 | 05:54 20:43 21:42 | 04:42 21:42 22:10 | 04:26 22:10 21:15 | 05:02 21:15 20:09 | 06:03 20:09 19:09 | 07:05 19:09 17:52 | 07:07 17:52 16:00 | 08:13 16:00 15:41 | 22 14:20 (C17) |
| 26 | 08:25 16:32 | 14:14 (C17) 17:41 18:40 | 07:27 17:41 18:40 | 05:52 20:45 21:43 | 04:40 21:43 22:10 | 04:26 22:10 21:15 | 05:04 21:15 20:09 | 06:05 20:09 19:07 | 07:07 19:07 17:50 | 07:09 17:50 16:00 | 08:15 16:00 15:41 | 23 14:21 (C17) |
| 27 | 08:24 16:34 | 14:14 (C17) 17:43 18:42 | 07:25 17:43 18:42 | 05:50 20:47 21:45 | 04:38 21:45 22:10 | 04:27 22:10 21:15 | 05:06 21:15 20:09 | 06:07 20:09 19:04 | 07:09 19:04 17:47 | 07:12 17:47 16:00 | 08:17 16:00 15:42 | 24 14:22 (C17) |
| 28 | 08:22 16:36 | 14:14 (C17) 17:45 18:44 | 07:23 17:45 18:44 | 05:48 20:49 21:47 | 04:36 21:47 22:10 | 04:27 22:10 21:15 | 05:08 21:15 20:09 | 06:09 20:09 19:01 | 07:11 19:01 17:45 | 07:14 17:45 16:00 | 08:19 16:00 15:43 | 25 14:23 (C17) |
| 29 | 08:20 16:38 | 14:14 (C17) 17:47 18:46 | 07:21 17:47 18:46 | 05:46 20:51 21:48 | 04:34 21:48 22:10 | 04:26 22:10 21:15 | 05:10 21:15 20:09 | 06:11 20:09 18:59 | 07:13 18:59 17:42 | 07:16 17:42 16:00 | 08:21 16:00 15:44 | 26 14:24 (C17) |
| 30 | 08:18 16:40 | 14:14 (C17) 17:49 18:48 | 07:19 17:49 18:48 | 05:44 20:53 21:50 | 04:32 21:50 22:09 | 04:26 22:09 21:15 | 05:11 21:15 20:09 | 06:13 20:09 18:56 | 07:15 18:56 17:40 | 07:18 17:40 16:00 | 08:22 16:00 15:46 | 27 14:25 (C17) |
| 31 | 08:17 16:43 | 14:14 (C17) 17:51 18:50 | 07:17 17:51 18:50 | 05:42 21:51 21:51 | 04:30 21:51 21:51 | 04:27 21:51 21:51 | 05:13 21:51 20:16 | 06:15 20:16 18:56 | 07:20 18:56 17:38 | 07:20 17:38 16:00 | 08:21 16:00 15:46 | 28 14:26 (C17) |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 19 | | | | | | | | | | | 278 |
| Sun reduction | 0.13 | | | | | | | | | | | 0.07 |
| Oper. time red. | 0.98 | | | | | | | | | | | 0.98 |
| Wind dir. red. | 0.66 | | | | | | | | | | | 0.66 |
| Total reduction | 0.09 | | | | | | | | | | | 0.05 |
| Total, real | 2 | | | | | | | | | | | 13 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Druvas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (47)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|-------|------------|------------|------------|
| 1 | 08:51 | 08:15 | 07:11 | 06:49 | 05:32 | 04:36 |
| | 15:48 | 16:45 | 17:47 | 19:53 | 20:55 | 21:53 |
| 2 | 08:50 | 08:13 | 07:08 | 06:46 | 05:30 | 04:35 |
| | 15:49 | 16:47 | 17:50 | 19:55 | 20:57 | 21:54 |
| 3 | 08:50 | 08:11 | 07:06 | 06:43 | 07:21 (C1) | 05:28 |
| | 15:51 | 16:50 | 17:52 | 19:57 | 07:31 (C1) | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 06:41 | 07:17 (C1) | 05:26 |
| | 15:52 | 16:52 | 17:54 | 19:59 | 07:35 (C1) | 21:02 |
| 5 | 08:49 | 08:07 | 07:00 | 06:38 | 07:14 (C1) | 05:23 |
| | 15:53 | 16:54 | 17:56 | 20:01 | 07:37 (C1) | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 06:35 | 07:12 (C1) | 05:21 |
| | 15:55 | 16:56 | 17:58 | 20:03 | 07:39 (C1) | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 07:21 (C4) | 06:33 | 07:10 (C1) |
| | 15:56 | 16:59 | 18:00 | 1 | 07:22 (C4) | 20:05 |
| 8 | 08:48 | 08:00 | 06:53 | 07:18 (C4) | 06:30 | 07:08 (C1) |
| | 15:58 | 17:01 | 18:03 | 7 | 07:25 (C4) | 20:08 |
| 9 | 08:47 | 07:58 | 06:50 | 07:16 (C4) | 06:27 | 07:07 (C1) |
| | 15:59 | 17:03 | 18:05 | 11 | 07:27 (C4) | 20:10 |
| 10 | 08:46 | 07:56 | 06:47 | 07:13 (C4) | 06:25 | 07:06 (C1) |
| | 16:01 | 17:05 | 18:07 | 15 | 07:28 (C4) | 20:12 |
| 11 | 08:45 | 07:54 | 06:45 | 07:10 (C4) | 06:22 | 07:06 (C1) |
| | 16:03 | 17:08 | 18:09 | 18 | 07:28 (C4) | 20:14 |
| 12 | 08:44 | 07:52 | 06:42 | 07:09 (C4) | 06:20 | 07:04 (C1) |
| | 16:04 | 17:10 | 18:11 | 20 | 07:29 (C4) | 20:16 |
| 13 | 08:43 | 07:49 | 06:39 | 07:08 (C4) | 06:17 | 07:04 (C1) |
| | 16:06 | 17:12 | 18:13 | 21 | 07:29 (C4) | 20:18 |
| 14 | 08:42 | 07:47 | 06:37 | 07:07 (C4) | 06:14 | 07:03 (C1) |
| | 16:08 | 17:14 | 18:15 | 21 | 07:28 (C4) | 20:20 |
| 15 | 08:41 | 07:45 | 06:34 | 07:07 (C4) | 06:12 | 07:03 (C1) |
| | 16:10 | 17:17 | 18:17 | 20 | 07:27 (C4) | 20:22 |
| 16 | 08:40 | 07:43 | 06:32 | 07:08 (C4) | 06:09 | 07:02 (C1) |
| | 16:12 | 17:19 | 18:20 | 19 | 07:27 (C4) | 20:24 |
| 17 | 08:39 | 07:40 | 06:29 | 07:08 (C4) | 06:07 | 07:03 (C1) |
| | 16:14 | 17:21 | 18:22 | 18 | 07:26 (C4) | 20:26 |
| 18 | 08:37 | 07:38 | 06:26 | 07:09 (C4) | 06:04 | 07:02 (C1) |
| | 16:16 | 17:23 | 18:24 | 15 | 07:24 (C4) | 20:28 |
| 19 | 08:36 | 07:35 | 06:23 | 07:11 (C4) | 06:02 | 07:02 (C1) |
| | 16:18 | 17:25 | 18:26 | 11 | 07:22 (C4) | 20:30 |
| 20 | 08:35 | 07:33 | 06:21 | 07:15 (C4) | 05:59 | 07:02 (C1) |
| | 16:20 | 17:28 | 18:28 | 3 | 07:18 (C4) | 20:33 |
| 21 | 08:33 | 07:31 | 06:18 | | 05:57 | 07:02 (C1) |
| | 16:22 | 17:30 | 18:30 | | 20:35 | 07:40 (C1) |
| 22 | 08:32 | 07:28 | 06:15 | | 05:54 | 07:03 (C1) |
| | 16:24 | 17:32 | 18:32 | | 20:37 | 07:40 (C1) |
| 23 | 08:30 | 07:26 | 06:13 | | 05:52 | 07:03 (C1) |
| | 16:26 | 17:34 | 18:34 | | 20:39 | 07:38 (C1) |
| 24 | 08:29 | 07:23 | 06:10 | | 05:49 | 07:04 (C1) |
| | 16:28 | 17:37 | 18:36 | | 20:41 | 07:37 (C1) |
| 25 | 08:27 | 07:21 | 06:07 | | 05:47 | 07:05 (C1) |
| | 16:30 | 17:39 | 18:38 | | 20:43 | 07:36 (C1) |
| 26 | 08:26 | 07:18 | 06:05 | | 05:44 | 07:05 (C1) |
| | 16:32 | 17:41 | 18:40 | | 20:45 | 07:34 (C1) |
| 27 | 08:24 | 07:16 | 06:02 | | 05:42 | 07:07 (C1) |
| | 16:34 | 17:43 | 18:43 | | 20:47 | 07:33 (C1) |
| 28 | 08:22 | 07:13 | 05:59 | | 05:39 | 07:08 (C1) |
| | 16:36 | 17:45 | 18:45 | | 20:49 | 07:31 (C1) |
| 29 | 08:20 | | 06:57 | | 05:37 | 07:11 (C1) |
| | 16:39 | | 19:47 | | 20:51 | 07:29 (C1) |
| 30 | 08:18 | | 06:54 | | 05:35 | 07:13 (C1) |
| | 16:41 | | 19:49 | | 20:53 | 07:25 (C1) |
| 31 | 08:17 | | 06:51 | | | 04:37 |
| | 16:43 | | 19:51 | | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | | 200 | 887 | 67 | 632 |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | 0.62 | 0.66 | 0.67 | 0.67 |
| Total reduction | | | 0.25 | 0.32 | 0.37 | 0.37 |
| Total, real | | | 50 | 285 | 25 | 231 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Druvas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (47)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|-------------|-------------|------------|------------|---------|------------|------------|-------|------------|-------|
| 1 | 04:30 | 05:12 (C17) | 05:16 | 06:17 | 07:04 (C1) | 07:17 | 07:48 (C4) | 07:23 | 08:24 | | |
| | 22:09 | 21 | 05:33 (C17) | 21:28 | 20:14 | 38 | 07:42 (C1) | 18:54 | 20 | 08:08 (C4) | 16:36 |
| 2 | 04:31 | 05:12 (C17) | 05:17 | 06:19 | 07:05 (C1) | 07:19 | 07:48 (C4) | 07:25 | 08:26 | | |
| | 22:09 | 22 | 05:34 (C17) | 21:26 | 20:11 | 36 | 07:41 (C1) | 18:51 | 19 | 08:07 (C4) | 16:34 |
| 3 | 04:32 | 05:13 (C17) | 05:19 | 06:21 | 07:05 (C1) | 07:21 | 07:50 (C4) | 07:27 | 08:28 | | |
| | 22:08 | 21 | 05:34 (C17) | 21:24 | 20:09 | 35 | 07:40 (C1) | 18:48 | 16 | 08:06 (C4) | 16:31 |
| 4 | 04:33 | 05:13 (C17) | 05:21 | 06:23 | 07:06 (C1) | 07:23 | 07:52 (C4) | 07:29 | 08:29 | | |
| | 22:07 | 21 | 05:34 (C17) | 21:22 | 20:06 | 33 | 07:39 (C1) | 18:46 | 13 | 08:05 (C4) | 16:29 |
| 5 | 04:33 | 05:13 (C17) | 05:23 | 06:25 | 07:06 (C1) | 07:25 | 07:54 (C4) | 07:31 | 08:31 | | |
| | 22:07 | 22 | 05:35 (C17) | 21:19 | 20:03 | 30 | 07:36 (C1) | 18:43 | 9 | 08:03 (C4) | 16:27 |
| 6 | 04:35 | 05:14 (C17) | 05:25 | 06:27 | 07:07 (C1) | 07:27 | 07:56 (C4) | 07:33 | 08:32 | | |
| | 22:06 | 21 | 05:35 (C17) | 21:17 | 20:01 | 27 | 07:34 (C1) | 18:40 | 4 | 08:00 (C4) | 16:25 |
| 7 | 04:36 | 05:14 (C17) | 05:27 | 06:29 | 07:09 (C1) | 07:29 | | 07:36 | 08:34 | | |
| | 22:05 | 21 | 05:35 (C17) | 21:15 | 19:58 | 23 | 07:32 (C1) | 18:38 | | 16:23 | 15:40 |
| 8 | 04:37 | 05:14 (C17) | 05:29 | 06:31 | 07:11 (C1) | 07:32 | | 07:38 | 08:35 | | |
| | 22:04 | 21 | 05:35 (C17) | 21:13 | 19:55 | 19 | 07:30 (C1) | 18:35 | | 16:21 | 15:40 |
| 9 | 04:38 | 05:15 (C17) | 05:31 | 06:33 | 07:15 (C1) | 07:34 | | 07:40 | 08:37 | | |
| | 22:03 | 20 | 05:35 (C17) | 21:11 | 19:53 | 10 | 07:25 (C1) | 18:32 | | 16:19 | 15:39 |
| 10 | 04:39 | 05:16 (C17) | 05:33 | 06:35 | | 07:36 | | 07:42 | 08:38 | | |
| | 22:02 | 18 | 05:34 (C17) | 21:08 | 19:50 | | 18:30 | | 16:17 | 15:39 | |
| 11 | 04:41 | 05:17 (C17) | 05:35 | 06:37 | | 07:38 | | 07:44 | 08:39 | | |
| | 22:01 | 17 | 05:34 (C17) | 21:06 | 19:47 | | 18:27 | | 16:15 | 15:38 | |
| 12 | 04:42 | 05:19 (C17) | 05:37 | 07:26 (C1) | 06:39 | | 07:40 | | 07:46 | 08:40 | |
| | 22:00 | 16 | 05:35 (C17) | 21:04 | 19:45 | | 18:25 | | 16:13 | 15:38 | |
| 13 | 04:43 | 05:20 (C17) | 05:39 | 07:20 (C1) | 06:41 | | 07:42 | | 07:49 | 08:42 | |
| | 21:59 | 14 | 05:34 (C17) | 21:01 | 19:42 | | 18:22 | | 16:11 | 15:38 | |
| 14 | 04:45 | 05:21 (C17) | 05:41 | 07:17 (C1) | 06:43 | | 07:44 | | 07:51 | 08:43 | |
| | 21:58 | 13 | 05:34 (C17) | 20:59 | 19:39 | | 18:19 | | 16:09 | 15:38 | |
| 15 | 04:46 | 05:22 (C17) | 05:43 | 07:15 (C1) | 06:45 | | 07:46 | | 07:53 | 08:44 | |
| | 21:57 | 11 | 05:33 (C17) | 20:57 | 19:37 | | 18:17 | | 16:07 | 15:38 | |
| 16 | 04:48 | 05:24 (C17) | 05:45 | 07:14 (C1) | 06:47 | | 07:48 | | 07:55 | 08:45 | |
| | 21:55 | 9 | 05:33 (C17) | 20:54 | 19:34 | | 18:14 | | 16:06 | 15:38 | |
| 17 | 04:49 | 05:25 (C17) | 05:47 | 07:12 (C1) | 06:49 | | 07:50 | | 07:57 | 08:46 | |
| | 21:54 | 7 | 05:32 (C17) | 20:52 | 19:31 | | 18:12 | | 16:04 | 15:38 | |
| 18 | 04:51 | 05:27 (C17) | 05:49 | 07:10 (C1) | 06:51 | | 07:52 | | 07:59 | 08:46 | |
| | 21:52 | 4 | 05:31 (C17) | 20:50 | 19:29 | | 18:09 | | 16:02 | 15:38 | |
| 19 | 04:52 | 05:28 (C17) | 05:51 | 07:09 (C1) | 06:53 | | 07:55 | | 08:01 | 08:47 | |
| | 21:51 | 1 | 05:29 (C17) | 20:47 | 19:26 | | 18:07 | | 16:01 | 15:38 | |
| 20 | 04:54 | | 05:53 | 07:08 (C1) | 06:55 | | 07:57 | | 08:03 | 08:48 | |
| | 21:49 | | 20:45 | 36 | 07:44 (C1) | 19:23 | 18:04 | | 15:59 | 15:38 | |
| 21 | 04:56 | | 05:55 | | 07:08 (C1) | 06:57 | 07:59 | | 08:05 | 08:48 | |
| | 21:48 | | 20:42 | 36 | 07:44 (C1) | 19:20 | 18:02 | | 15:58 | 15:39 | |
| 22 | 04:57 | | 05:57 | | 07:07 (C1) | 06:59 | 08:01 | | 08:07 | 08:49 | |
| | 21:46 | | 20:40 | 38 | 07:45 (C1) | 19:18 | 17:59 | | 15:56 | 15:39 | |
| 23 | 04:59 | | 05:59 | | 07:06 (C1) | 07:01 | 08:03 | | 08:09 | 08:50 | |
| | 21:45 | | 20:37 | 39 | 07:45 (C1) | 19:15 | 17:57 | | 15:55 | 15:40 | |
| 24 | 05:01 | | 06:01 | | 07:06 (C1) | 07:03 | 08:05 | | 08:11 | 08:50 | |
| | 21:43 | | 20:35 | 39 | 07:45 (C1) | 19:12 | 9 | 08:04 (C4) | 17:55 | 15:40 | |
| 25 | 05:03 | | 06:03 | | 07:06 (C1) | 07:05 | 07:52 (C4) | | 07:07 | 08:13 | 08:50 |
| | 21:41 | | 20:32 | 39 | 07:45 (C1) | 19:10 | 14 | 08:06 (C4) | 16:52 | 15:41 | |
| 26 | 05:04 | | 06:05 | | 07:04 (C1) | 07:07 | 07:51 (C4) | | 07:10 | 08:15 | 08:51 |
| | 21:39 | | 20:29 | 40 | 07:44 (C1) | 19:07 | 17 | 08:08 (C4) | 16:50 | 15:42 | |
| 27 | 05:06 | | 06:07 | | 07:04 (C1) | 07:09 | 07:50 (C4) | | 07:12 | 08:17 | 08:51 |
| | 21:38 | | 20:27 | 40 | 07:44 (C1) | 19:04 | 19 | 08:09 (C4) | 16:47 | 15:49 | 15:43 |
| 28 | 05:08 | | 06:09 | | 07:04 (C1) | 07:11 | 07:49 (C4) | | 07:14 | 08:19 | 08:51 |
| | 21:36 | | 20:24 | 40 | 07:44 (C1) | 19:02 | 20 | 08:09 (C4) | 16:45 | 15:48 | 15:44 |
| 29 | 05:10 | | 06:11 | | 07:04 (C1) | 07:13 | 07:48 (C4) | | 07:16 | 08:21 | 08:51 |
| | 21:34 | | 20:22 | 40 | 07:44 (C1) | 18:59 | 21 | 08:09 (C4) | 16:43 | 15:47 | 15:44 |
| 30 | 05:12 | | 06:13 | | 07:04 (C1) | 07:15 | 07:48 (C4) | | 07:18 | 08:22 | 08:51 |
| | 21:32 | | 20:19 | 39 | 07:43 (C1) | 18:56 | 21 | 08:09 (C4) | 16:40 | 15:46 | 15:45 |
| 31 | 05:14 | | 06:15 | | 07:04 (C1) | | | | 07:20 | | 08:51 |
| | 21:30 | | 20:17 | 39 | 07:43 (C1) | | | | 16:38 | | 15:47 |
| Potential sun hours | 529 | | 469 | | 385 | | 324 | | 247 | | 216 |
| Total, worst case | 300 | | 648 | | 372 | | 81 | | | | |
| Sun reduction | 0.49 | | 0.50 | | 0.43 | | 0.26 | | | | |
| Oper. time red. | 0.98 | | 0.98 | | 0.98 | | 0.98 | | | | |
| Wind dir. red. | 0.67 | | 0.66 | | 0.65 | | 0.62 | | | | |
| Total reduction | 0.32 | | 0.32 | | 0.27 | | 0.16 | | | | |
| Total, real | 97 | | 207 | | 100 | | 13 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Dzelmēs - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (129)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Dzintari - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (62)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Dzervites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (204)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:16 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:04 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:58 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Darzupites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (58)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|-------|-------|------------|------------|-------|
| 1 | 08:51 | | 10:02 (C13) | 08:15 | | 10:10 (C13) | 07:11 | 06:49 | 05:33 | 06:00 (C1) | 04:36 | |
| | 15:48 | 33 | 10:35 (C13) | 16:45 | 36 | 10:46 (C13) | 17:48 | 19:53 | 20:55 | 5 | 06:05 (C1) | 21:53 |
| 2 | 08:50 | | 10:03 (C13) | 08:13 | | 10:11 (C13) | 07:08 | 06:46 | 05:30 | | 05:58 (C1) | 04:35 |
| | 15:49 | 33 | 10:36 (C13) | 16:47 | 35 | 10:46 (C13) | 17:50 | 19:55 | 20:57 | 8 | 06:06 (C1) | 21:54 |
| 3 | 08:50 | | 10:02 (C13) | 08:11 | | 10:12 (C13) | 07:06 | 06:43 | 05:28 | | 05:56 (C1) | 04:34 |
| | 15:51 | 34 | 10:36 (C13) | 16:50 | 33 | 10:45 (C13) | 17:52 | 19:57 | 21:00 | 11 | 06:07 (C1) | 21:55 |
| 4 | 08:50 | | 10:02 (C13) | 08:09 | | 10:14 (C13) | 07:03 | 06:41 | 05:26 | | 05:54 (C1) | 04:33 |
| | 15:52 | 35 | 10:37 (C13) | 16:52 | 30 | 10:44 (C13) | 17:54 | 19:59 | 21:02 | 14 | 06:08 (C1) | 21:57 |
| 5 | 08:49 | | 10:03 (C13) | 08:07 | | 10:16 (C13) | 07:00 | 06:38 | 05:23 | | 05:52 (C1) | 04:32 |
| | 15:53 | 35 | 10:38 (C13) | 16:54 | 27 | 10:43 (C13) | 17:56 | 20:01 | 21:04 | 17 | 06:09 (C1) | 21:58 |
| 6 | 08:49 | | 10:03 (C13) | 08:05 | | 10:17 (C13) | 06:58 | 06:35 | 05:21 | | 05:50 (C1) | 04:31 |
| | 15:55 | 36 | 10:39 (C13) | 16:56 | 24 | 10:41 (C13) | 17:58 | 20:03 | 21:06 | 19 | 06:09 (C1) | 21:59 |
| 7 | 08:48 | | 10:03 (C13) | 08:03 | | 10:19 (C13) | 06:55 | 06:33 | 05:19 | | 05:49 (C1) | 04:30 |
| | 15:56 | 36 | 10:39 (C13) | 16:59 | 20 | 10:39 (C13) | 18:00 | 20:05 | 21:08 | 20 | 06:09 (C1) | 22:00 |
| 8 | 08:48 | | 10:03 (C13) | 08:01 | | 10:23 (C13) | 06:53 | 06:30 | 05:17 | | 05:49 (C1) | 04:29 |
| | 15:58 | 37 | 10:40 (C13) | 17:01 | 13 | 10:36 (C13) | 18:03 | 20:08 | 21:10 | 20 | 06:09 (C1) | 22:01 |
| 9 | 08:47 | | 10:03 (C13) | 07:58 | | | 06:50 | 06:28 | 05:15 | | 05:49 (C1) | 04:29 |
| | 15:59 | 38 | 10:41 (C13) | 17:03 | | | 18:05 | 20:10 | 21:12 | 20 | 06:09 (C1) | 22:02 |
| 10 | 08:46 | | 10:03 (C13) | 07:56 | | | 06:47 | 06:25 | 05:13 | | 05:49 (C1) | 04:28 |
| | 16:01 | 39 | 10:42 (C13) | 17:05 | | | 18:07 | 20:12 | 21:14 | 20 | 06:09 (C1) | 22:03 |
| 11 | 08:45 | | 10:03 (C13) | 07:54 | | | 06:45 | 06:22 | 05:11 | | 05:49 (C1) | 04:27 |
| | 16:03 | 39 | 10:42 (C13) | 17:08 | | | 18:09 | 20:14 | 21:16 | 19 | 06:08 (C1) | 22:04 |
| 12 | 08:44 | | 10:04 (C13) | 07:52 | | | 06:42 | 06:20 | 05:08 | | 05:49 (C1) | 04:27 |
| | 16:04 | 39 | 10:43 (C13) | 17:10 | | | 18:11 | 20:16 | 21:18 | 18 | 06:07 (C1) | 22:05 |
| 13 | 08:43 | | 10:03 (C13) | 07:50 | | | 06:40 | 06:17 | 05:06 | | 05:50 (C1) | 04:26 |
| | 16:06 | 40 | 10:43 (C13) | 17:12 | | | 18:13 | 20:18 | 21:20 | 17 | 06:07 (C1) | 22:06 |
| 14 | 08:42 | | 10:03 (C13) | 07:47 | | | 06:37 | 06:14 | 05:04 | | 05:51 (C1) | 04:26 |
| | 16:08 | 41 | 10:44 (C13) | 17:14 | | | 18:15 | 20:20 | 21:22 | 16 | 06:07 (C1) | 22:07 |
| 15 | 08:41 | | 10:03 (C13) | 07:45 | | | 06:34 | 06:12 | 05:03 | | 05:52 (C1) | 04:26 |
| | 16:10 | 41 | 10:44 (C13) | 17:17 | | | 18:18 | 20:22 | 21:24 | 13 | 06:05 (C1) | 22:07 |
| 16 | 08:40 | | 10:04 (C13) | 07:43 | | | 06:32 | 06:09 | 05:01 | | 05:53 (C1) | 04:25 |
| | 16:12 | 41 | 10:45 (C13) | 17:19 | | | 18:20 | 20:24 | 21:25 | 11 | 06:04 (C1) | 22:08 |
| 17 | 08:39 | | 10:04 (C13) | 07:40 | | | 06:29 | 06:07 | 04:59 | | 05:55 (C1) | 04:25 |
| | 16:14 | 42 | 10:46 (C13) | 17:21 | | | 18:22 | 20:26 | 21:27 | 7 | 06:02 (C1) | 22:08 |
| 18 | 08:37 | | 10:04 (C13) | 07:38 | | | 06:26 | 06:04 | 04:57 | | | 04:25 |
| | 16:16 | 42 | 10:46 (C13) | 17:23 | | | 18:24 | 20:28 | 21:29 | | | 22:09 |
| 19 | 08:36 | | 10:04 (C13) | 07:36 | | | 06:24 | 06:02 | 04:55 | | | 04:25 |
| | 16:18 | 42 | 10:46 (C13) | 17:26 | | | 18:26 | 20:30 | 21:31 | | | 22:09 |
| 20 | 08:35 | | 10:05 (C13) | 07:33 | | | 06:21 | 05:59 | 04:53 | | | 04:25 |
| | 16:20 | 42 | 10:47 (C13) | 17:28 | | | 18:28 | 20:33 | 21:33 | | | 22:10 |
| 21 | 08:33 | | 10:05 (C13) | 07:31 | | | 06:18 | 05:57 | 04:52 | | | 04:25 |
| | 16:22 | 43 | 10:48 (C13) | 17:30 | | | 18:30 | 20:35 | 21:35 | | | 22:10 |
| 22 | 08:32 | | 10:05 (C13) | 07:28 | | | 06:16 | 05:54 | 04:50 | | | 04:25 |
| | 16:24 | 43 | 10:48 (C13) | 17:32 | | | 18:32 | 20:37 | 21:37 | | | 22:10 |
| 23 | 08:30 | | 10:05 (C13) | 07:26 | | | 06:13 | 05:52 | 04:48 | | | 04:26 |
| | 16:26 | 43 | 10:48 (C13) | 17:34 | | | 18:34 | 20:39 | 21:38 | | | 22:10 |
| 24 | 08:29 | | 10:06 (C13) | 07:23 | | | 06:10 | 05:49 | 04:47 | | | 04:26 |
| | 16:28 | 43 | 10:49 (C13) | 17:37 | | | 18:36 | 20:41 | 21:40 | | | 22:10 |
| 25 | 08:27 | | 10:06 (C13) | 07:21 | | | 06:07 | 05:47 | 04:45 | | | 04:26 |
| | 16:30 | 43 | 10:49 (C13) | 17:39 | | | 18:38 | 20:43 | 21:42 | | | 22:10 |
| 26 | 08:26 | | 10:07 (C13) | 07:18 | | | 06:05 | 05:44 | 04:44 | | | 04:27 |
| | 16:32 | 42 | 10:49 (C13) | 17:41 | | | 18:41 | 20:45 | 21:43 | | | 22:10 |
| 27 | 08:24 | | 10:07 (C13) | 07:16 | | | 06:02 | 05:42 | 04:42 | | | 04:27 |
| | 16:34 | 42 | 10:49 (C13) | 17:43 | | | 18:43 | 20:47 | 21:45 | | | 22:10 |
| 28 | 08:22 | | 10:08 (C13) | 07:13 | | | 05:59 | 05:40 | 04:41 | | | 04:28 |
| | 16:36 | 40 | 10:48 (C13) | 17:45 | | | 18:45 | 20:49 | 21:47 | | | 22:10 |
| 29 | 08:20 | | 10:08 (C13) | | | | 06:57 | 05:37 | 04:40 | | | 04:29 |
| | 16:39 | 40 | 10:48 (C13) | | | | 19:47 | 20:51 | 21:48 | | | 22:10 |
| 30 | 08:18 | | 10:09 (C13) | | | | 06:54 | 05:35 | 04:38 | | | 04:29 |
| | 16:41 | 39 | 10:48 (C13) | | | | 19:49 | 20:53 | 21:50 | | | 22:09 |
| 31 | 08:17 | | 10:10 (C13) | | | | 06:51 | | 04:37 | | | |
| | 16:43 | 38 | 10:48 (C13) | | | | 19:51 | | 21:51 | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | 426 | 508 | | 529 | |
| Total, worst case | 1221 | | | 218 | | | | | 255 | | | |
| Sun reduction | 0.13 | | | 0.20 | | | | | 0.57 | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | | | 0.98 | | | |
| Wind dir. red. | 0.61 | | | 0.61 | | | | | 0.67 | | | |
| Total reduction | 0.08 | | | 0.12 | | | | | 0.36 | | | |
| Total, real | 95 | | | 26 | | | | | 92 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Darzupites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (58)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|---------------|---------------|-----------|-------|---------|----------------|-------------|----------------|-------------|----------------|
| 1 | 04:30 | 05:16 | 05:59 (C1) | 06:17 | 07:17 | 07:23 | | | | 08:24 | 09:45 (C13) |
| | 22:09 | 21:28 | 19 06:18 (C1) | 20:14 | 18:54 | 16:36 | | | | 15:45 | 40 10:25 (C13) |
| 2 | 04:31 | 05:18 | 05:59 (C1) | 06:19 | 07:19 | 07:25 | | | | 08:26 | 09:46 (C13) |
| | 22:09 | 21:26 | 19 06:18 (C1) | 20:11 | 18:51 | 16:34 | | | | 15:44 | 39 10:25 (C13) |
| 3 | 04:32 | 05:19 | 05:59 (C1) | 06:21 | 07:21 | 07:27 | | 09:52 (C13) | 08:28 | 09:46 (C13) | |
| | 22:08 | 21:24 | 20 06:19 (C1) | 20:09 | 18:48 | 16:32 | 14 10:06 (C13) | 15:43 | 38 10:24 (C13) | | |
| 4 | 04:33 | 05:21 | 05:59 (C1) | 06:23 | 07:23 | 07:29 | | 09:49 (C13) | 08:29 | 09:47 (C13) | |
| | 22:07 | 21:22 | 20 06:19 (C1) | 20:06 | 18:46 | 16:29 | 20 10:09 (C13) | 15:42 | 37 10:24 (C13) | | |
| 5 | 04:34 | 05:23 | 05:58 (C1) | 06:25 | 07:25 | 07:31 | | 09:46 (C13) | 08:31 | 09:48 (C13) | |
| | 22:07 | 21:20 | 20 06:18 (C1) | 20:03 | 18:43 | 16:27 | 25 10:11 (C13) | 15:42 | 36 10:24 (C13) | | |
| 6 | 04:35 | 05:25 | 05:58 (C1) | 06:27 | 07:27 | 07:33 | | 09:45 (C13) | 08:32 | 09:49 (C13) | |
| | 22:06 | 21:17 | 20 06:18 (C1) | 20:01 | 18:40 | 16:25 | 28 10:13 (C13) | 15:41 | 36 10:25 (C13) | | |
| 7 | 04:36 | 05:27 | 06:00 (C1) | 06:29 | 07:30 | 07:36 | | 09:43 (C13) | 08:34 | 09:49 (C13) | |
| | 22:05 | 21:15 | 18 06:18 (C1) | 19:58 | 18:38 | 16:23 | 31 10:14 (C13) | 15:40 | 35 10:24 (C13) | | |
| 8 | 04:37 | 05:29 | 06:02 (C1) | 06:31 | 07:32 | 07:38 | | 09:43 (C13) | 08:35 | 09:50 (C13) | |
| | 22:04 | 21:13 | 16 06:18 (C1) | 19:55 | 18:35 | 16:21 | 33 10:16 (C13) | 15:40 | 35 10:25 (C13) | | |
| 9 | 04:38 | 05:31 | 06:04 (C1) | 06:33 | 07:34 | 07:40 | | 09:42 (C13) | 08:37 | 09:50 (C13) | |
| | 22:03 | 21:11 | 13 06:17 (C1) | 19:53 | 18:32 | 16:19 | 35 10:17 (C13) | 15:39 | 34 10:24 (C13) | | |
| 10 | 04:39 | 05:33 | 06:06 (C1) | 06:35 | 07:36 | 07:42 | | 09:42 (C13) | 08:38 | 09:52 (C13) | |
| | 22:02 | 21:08 | 11 06:17 (C1) | 19:50 | 18:30 | 16:17 | 36 10:18 (C13) | 15:39 | 33 10:25 (C13) | | |
| 11 | 04:41 | 05:35 | 06:07 (C1) | 06:37 | 07:38 | 07:44 | | 09:41 (C13) | 08:39 | 09:52 (C13) | |
| | 22:01 | 21:06 | 8 06:15 (C1) | 19:47 | 18:27 | 16:15 | 38 10:19 (C13) | 15:38 | 33 10:25 (C13) | | |
| 12 | 04:42 | 05:37 | 06:09 (C1) | 06:39 | 07:40 | 07:46 | | 09:40 (C13) | 08:40 | 09:54 (C13) | |
| | 22:00 | 21:04 | 4 06:13 (C1) | 19:45 | 18:25 | 16:13 | 39 10:19 (C13) | 15:38 | 32 10:26 (C13) | | |
| 13 | 04:43 | 05:39 | | 06:41 | 07:42 | 07:49 | | 09:40 (C13) | 08:42 | 09:54 (C13) | |
| | 21:59 | 21:02 | | 19:42 | 18:22 | 16:11 | 40 10:20 (C13) | 15:38 | 31 10:25 (C13) | | |
| 14 | 04:45 | 05:41 | | 06:43 | 07:44 | 07:51 | | 09:40 (C13) | 08:43 | 09:55 (C13) | |
| | 21:58 | 20:59 | | 19:39 | 18:19 | 16:09 | 40 10:20 (C13) | 15:38 | 31 10:26 (C13) | | |
| 15 | 04:46 | 05:43 | | 06:45 | 07:46 | 07:53 | | 09:39 (C13) | 08:44 | 09:55 (C13) | |
| | 21:57 | 20:57 | | 19:37 | 18:17 | 16:08 | 41 10:20 (C13) | 15:38 | 31 10:26 (C13) | | |
| 16 | 04:48 | 05:45 | | 06:47 | 07:48 | 07:55 | | 09:40 (C13) | 08:45 | 09:56 (C13) | |
| | 21:55 | 20:54 | | 19:34 | 18:14 | 16:06 | 42 10:22 (C13) | 15:38 | 30 10:26 (C13) | | |
| 17 | 04:49 | 05:47 | | 06:49 | 07:50 | 07:57 | | 09:39 (C13) | 08:46 | 09:57 (C13) | |
| | 21:54 | 20:52 | | 19:31 | 18:12 | 16:04 | 43 10:22 (C13) | 15:38 | 29 10:26 (C13) | | |
| 18 | 04:51 | 05:49 | | 06:51 | 07:52 | 07:59 | | 09:40 (C13) | 08:46 | 09:57 (C13) | |
| | 21:52 | 20:50 | | 19:29 | 18:09 | 16:02 | 43 10:23 (C13) | 15:38 | 30 10:27 (C13) | | |
| 19 | 04:52 | 05:51 | | 06:53 | 07:55 | 08:01 | | 09:40 (C13) | 08:47 | 09:57 (C13) | |
| | 21:51 | 20:47 | | 19:26 | 18:07 | 16:01 | 43 10:23 (C13) | 15:38 | 29 10:26 (C13) | | |
| 20 | 04:54 | 05:53 | | 06:55 | 07:57 | 08:03 | | 09:40 (C13) | 08:48 | 09:58 (C13) | |
| | 21:49 | 20:45 | | 19:23 | 18:04 | 15:59 | 43 10:23 (C13) | 15:39 | 29 10:27 (C13) | | |
| 21 | 04:56 | 05:55 | | 06:57 | 07:59 | 08:05 | | 09:40 (C13) | 08:48 | 09:59 (C13) | |
| | 21:48 | 20:42 | | 19:20 | 18:02 | 15:58 | 43 10:23 (C13) | 15:39 | 29 10:28 (C13) | | |
| 22 | 04:57 | 05:57 | | 06:59 | 08:01 | 08:07 | | 09:41 (C13) | 08:49 | 09:59 (C13) | |
| | 21:46 | 20:40 | | 19:18 | 17:59 | 15:56 | 43 10:24 (C13) | 15:39 | 29 10:28 (C13) | | |
| 23 | 04:59 | 05:59 | | 07:01 | 08:03 | 08:09 | | 09:41 (C13) | 08:50 | 10:00 (C13) | |
| | 21:45 | 20:37 | | 19:15 | 17:57 | 15:55 | 42 10:23 (C13) | 15:40 | 29 10:29 (C13) | | |
| 24 | 05:01 | 06:01 | | 07:03 | 08:05 | 08:11 | | 09:41 (C13) | 08:50 | 10:00 (C13) | |
| | 21:43 | 20:35 | | 19:12 | 17:55 | 15:53 | 42 10:23 (C13) | 15:41 | 29 10:29 (C13) | | |
| 25 | 05:03 | 06:03 | | 07:05 | 07:07 | 08:13 | | 09:41 (C13) | 08:50 | 10:00 (C13) | |
| | 21:41 | 20:32 | | 19:10 | 16:52 | 15:52 | 42 10:23 (C13) | 15:41 | 30 10:30 (C13) | | |
| 26 | 05:04 | 06:08 (C1) | 06:05 | 07:07 | 07:10 | 08:15 | | 09:42 (C13) | 08:51 | 10:01 (C13) | |
| | 21:39 | 2 06:10 (C1) | 20:30 | 19:07 | 16:50 | 15:51 | 41 10:23 (C13) | 15:42 | 29 10:30 (C13) | | |
| 27 | 05:06 | 06:05 (C1) | 06:07 | 07:09 | 07:12 | 08:17 | | 09:43 (C13) | 08:51 | 10:01 (C13) | |
| | 21:38 | 9 06:14 (C1) | 20:27 | 19:04 | 16:47 | 15:49 | 41 10:24 (C13) | 15:43 | 30 10:31 (C13) | | |
| 28 | 05:08 | 06:03 (C1) | 06:09 | 07:11 | 07:14 | 08:19 | | 09:44 (C13) | 08:51 | 10:01 (C13) | |
| | 21:36 | 12 06:15 (C1) | 20:24 | 19:02 | 16:45 | 15:48 | 40 10:24 (C13) | 15:44 | 30 10:31 (C13) | | |
| 29 | 05:10 | 06:02 (C1) | 06:11 | 07:13 | 07:16 | 08:21 | | 09:44 (C13) | 08:51 | 10:01 (C13) | |
| | 21:34 | 14 06:16 (C1) | 20:22 | 18:59 | 16:43 | 15:47 | 40 10:24 (C13) | 15:45 | 31 10:32 (C13) | | |
| 30 | 05:12 | 06:01 (C1) | 06:13 | 07:15 | 07:18 | 08:22 | | 09:45 (C13) | 08:51 | 10:02 (C13) | |
| | 21:32 | 16 06:17 (C1) | 20:19 | 18:56 | 16:40 | 15:46 | 39 10:24 (C13) | 15:46 | 31 10:33 (C13) | | |
| 31 | 05:14 | 06:01 (C1) | 06:15 | | 07:20 | | | 08:51 | | 10:02 (C13) | |
| | 21:30 | 17 06:18 (C1) | 20:17 | | 16:38 | | | 15:47 | 32 10:34 (C13) | | |
| Potential sun hours | 529 | | 469 | | 385 | 324 | 247 | | 216 | | |
| Total, worst case | 70 | | 188 | | | | 1047 | | 997 | | |
| Sun reduction | 0.49 | | 0.50 | | | | 0.08 | | 0.07 | | |
| Oper. time red. | 0.98 | | 0.98 | | | | 0.98 | | 0.98 | | |
| Wind dir. red. | 0.67 | | 0.67 | | | | 0.61 | | 0.61 | | |
| Total reduction | 0.31 | | 0.32 | | | | 0.05 | | 0.04 | | |
| Total, real | 22 | | 60 | | | | 50 | | 41 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Elkš ni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (77)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:04 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:09 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:08 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ezeravoti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (50)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:31 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ezerkrasts - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (202)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:12 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:51 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:05 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:52 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:50 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ezermali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (26)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:15 16:45 | 07:11 17:47 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:58 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ezermuiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (221)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:24 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:05 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:54 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:26 22:10 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:11 17:47 | 08:17 15:50 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ezerkikaukas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (110)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 20:04 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 20:06 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 20:06 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 20:06 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 20:06 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 20:06 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 20:06 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 20:06 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 20:06 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 20:06 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 20:06 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 20:06 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 20:06 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 20:06 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 20:06 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 20:06 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:31 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 20:06 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 20:06 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 20:06 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 20:06 | 08:09 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 20:06 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 20:06 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:11 17:47 | 05:57 18:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 20:06 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | 07:10 17:49 | 05:54 18:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 20:06 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 07:08 17:51 | 05:52 18:51 | 05:37 19:51 | 04:37 21:51 | 04:30 22:10 | 05:14 21:30 | 06:15 20:17 | 07:21 20:06 | 08:24 17:38 | 08:29 15:47 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Galvani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (105)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | March | | | April | May | June |
|---------------------|---------|------|------------|----------|--|-------|----|-------------|-------|-------|-------|
| 1 | 08:51 | | 10:17 (C1) | 08:15 | | 07:11 | | | 06:49 | 05:32 | 04:36 |
| | 15:48 | 20 | 10:37 (C1) | 16:45 | | 17:47 | | | 19:53 | 20:55 | 21:53 |
| 2 | 08:51 | | 10:19 (C1) | 08:13 | | 07:08 | | 07:34 (C17) | 06:46 | 05:30 | 04:34 |
| | 15:49 | 19 | 10:38 (C1) | 16:47 | | 17:50 | 9 | 07:43 (C17) | 19:55 | 20:57 | 21:54 |
| 3 | 08:50 | | 10:19 (C1) | 08:11 | | 07:06 | | 07:32 (C17) | 06:43 | 05:28 | 04:33 |
| | 15:50 | 18 | 10:37 (C1) | 16:50 | | 17:52 | 15 | 07:47 (C17) | 19:57 | 21:00 | 21:55 |
| 4 | 08:50 | | 10:19 (C1) | 08:09 | | 07:03 | | 07:29 (C17) | 06:41 | 05:25 | 04:32 |
| | 15:52 | 18 | 10:37 (C1) | 16:52 | | 17:54 | 19 | 07:48 (C17) | 19:59 | 21:02 | 21:57 |
| 5 | 08:49 | | 10:21 (C1) | 08:07 | | 07:00 | | 07:27 (C17) | 06:38 | 05:23 | 04:31 |
| | 15:53 | 17 | 10:38 (C1) | 16:54 | | 17:56 | 22 | 07:49 (C17) | 20:01 | 21:04 | 21:58 |
| 6 | 08:49 | | 10:22 (C1) | 08:05 | | 06:58 | | 07:26 (C17) | 06:35 | 05:21 | 04:31 |
| | 15:55 | 15 | 10:37 (C1) | 16:56 | | 17:58 | 25 | 07:51 (C17) | 20:03 | 21:06 | 21:59 |
| 7 | 08:48 | | 10:23 (C1) | 08:03 | | 06:55 | | 07:25 (C17) | 06:33 | 05:19 | 04:30 |
| | 15:56 | 14 | 10:37 (C1) | 16:58 | | 18:00 | 26 | 07:51 (C17) | 20:05 | 21:08 | 22:00 |
| 8 | 08:48 | | 10:25 (C1) | 08:01 | | 06:53 | | 07:24 (C17) | 06:30 | 05:17 | 04:29 |
| | 15:58 | 11 | 10:36 (C1) | 17:01 | | 18:03 | 27 | 07:51 (C17) | 20:08 | 21:10 | 22:01 |
| 9 | 08:47 | | 10:26 (C1) | 07:58 | | 06:50 | | 07:24 (C17) | 06:27 | 05:15 | 04:28 |
| | 15:59 | 9 | 10:35 (C1) | 17:03 | | 18:05 | 28 | 07:52 (C17) | 20:10 | 21:12 | 22:02 |
| 10 | 08:46 | | 10:30 (C1) | 07:56 | | 06:47 | | 07:23 (C17) | 06:25 | 05:12 | 04:28 |
| | 16:01 | 3 | 10:33 (C1) | 17:05 | | 18:07 | 28 | 07:51 (C17) | 20:12 | 21:14 | 22:03 |
| 11 | 08:45 | | | 07:54 | | 06:45 | | 07:23 (C17) | 06:22 | 05:10 | 04:27 |
| | 16:03 | | | 17:07 | | 18:09 | 28 | 07:51 (C17) | 20:14 | 21:16 | 22:04 |
| 12 | 08:44 | | | 07:52 | | 06:42 | | 07:23 (C17) | 06:20 | 05:08 | 04:27 |
| | 16:04 | | | 17:10 | | 18:11 | 28 | 07:51 (C17) | 20:16 | 21:18 | 22:05 |
| 13 | 08:43 | | | 07:49 | | 06:39 | | 07:23 (C17) | 06:17 | 05:06 | 04:26 |
| | 16:06 | | | 17:12 | | 18:13 | 27 | 07:50 (C17) | 20:18 | 21:20 | 22:06 |
| 14 | 08:42 | | | 07:47 | | 06:37 | | 07:23 (C17) | 06:14 | 05:04 | 04:26 |
| | 16:08 | | | 17:14 | | 18:15 | 26 | 07:49 (C17) | 20:20 | 21:22 | 22:07 |
| 15 | 08:41 | | | 07:45 | | 06:34 | | 07:23 (C17) | 06:12 | 05:02 | 04:25 |
| | 16:10 | | | 17:16 | | 18:17 | 25 | 07:48 (C17) | 20:22 | 21:24 | 22:07 |
| 16 | 08:40 | | | 07:43 | | 06:31 | | 07:25 (C17) | 06:09 | 05:00 | 04:25 |
| | 16:12 | | | 17:19 | | 18:20 | 22 | 07:47 (C17) | 20:24 | 21:26 | 22:08 |
| 17 | 08:39 | | | 07:40 | | 06:29 | | 07:25 (C17) | 06:07 | 04:59 | 04:25 |
| | 16:14 | | | 17:21 | | 18:22 | 20 | 07:45 (C17) | 20:26 | 21:27 | 22:09 |
| 18 | 08:38 | | | 07:38 | | 06:26 | | 07:27 (C17) | 06:04 | 04:57 | 04:25 |
| | 16:15 | | | 17:23 | | 18:24 | 16 | 07:43 (C17) | 20:28 | 21:29 | 22:09 |
| 19 | 08:36 | | | 07:35 | | 06:23 | | 07:30 (C17) | 06:02 | 04:55 | 04:25 |
| | 16:17 | | | 17:25 | | 18:26 | 10 | 07:40 (C17) | 20:30 | 21:31 | 22:09 |
| 20 | 08:35 | | | 07:33 | | 06:21 | | | 05:59 | 04:53 | 04:25 |
| | 16:19 | | | 17:28 | | 18:28 | | | 20:33 | 21:33 | 22:10 |
| 21 | 08:33 | | | 07:31 | | 06:18 | | | 05:57 | 04:51 | 04:25 |
| | 16:21 | | | 17:30 | | 18:30 | | | 20:35 | 21:35 | 22:10 |
| 22 | 08:32 | | | 07:28 | | 06:15 | | | 05:54 | 04:50 | 04:25 |
| | 16:24 | | | 17:32 | | 18:32 | | | 20:37 | 21:37 | 22:10 |
| 23 | 08:30 | | | 07:26 | | 06:13 | | | 05:52 | 04:48 | 04:25 |
| | 16:26 | | | 17:34 | | 18:34 | | | 20:39 | 21:38 | 22:10 |
| 24 | 08:29 | | | 07:23 | | 06:10 | | | 05:49 | 04:47 | 04:26 |
| | 16:28 | | | 17:36 | | 18:36 | | | 20:41 | 21:40 | 22:11 |
| 25 | 08:27 | | | 07:21 | | 06:07 | | | 05:47 | 04:45 | 04:26 |
| | 16:30 | | | 17:39 | | 18:38 | | | 20:43 | 21:42 | 22:11 |
| 26 | 08:26 | | | 07:18 | | 06:05 | | | 05:44 | 04:43 | 04:27 |
| | 16:32 | | | 17:41 | | 18:40 | | | 20:45 | 21:43 | 22:10 |
| 27 | 08:24 | | | 07:16 | | 06:02 | | | 05:42 | 04:42 | 04:27 |
| | 16:34 | | | 17:43 | | 18:43 | | | 20:47 | 21:45 | 22:10 |
| 28 | 08:22 | | | 07:13 | | 05:59 | | | 05:39 | 04:41 | 04:28 |
| | 16:36 | | | 17:45 | | 18:45 | | | 20:49 | 21:47 | 22:10 |
| 29 | 08:20 | | | | | 06:57 | | | 05:37 | 04:39 | 04:28 |
| | 16:38 | | | | | 19:47 | | | 20:51 | 21:48 | 22:10 |
| 30 | 08:19 | | | | | 06:54 | | | 05:35 | 04:38 | 04:29 |
| | 16:41 | | | | | 19:49 | | | 20:53 | 21:50 | 22:09 |
| 31 | 08:17 | | | | | 06:51 | | | | 04:37 | |
| | 16:43 | | | | | 19:51 | | | | 21:51 | |
| Potential sun hours | 235 | | | 266 | | 366 | | | 426 | 508 | 529 |
| Total, worst case | | 144 | | | | 401 | | | | | |
| Sun reduction | | 0.13 | | | | 0.41 | | | | | |
| Oper. time red. | | 0.98 | | | | 0.98 | | | | | |
| Wind dir. red. | | 0.61 | | | | 0.62 | | | | | |
| Total reduction | | 0.08 | | | | 0.25 | | | | | |
| Total, real | | 11 | | | | 100 | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Galvani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (105)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:54 | 08:02 (C17) 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 08:02 (C17) 16:34 | 08:26 15:44 |
| 3 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 08:01 (C17) 16:31 | 08:28 15:43 |
| 4 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 08:01 (C17) 16:29 | 08:29 15:42 |
| 5 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 08:01 (C17) 16:27 | 08:31 15:41 |
| 6 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 08:01 (C17) 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 08:01 (C17) 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 08:02 (C17) 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 08:04 (C17) 16:19 | 08:37 15:39 |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 08:05 (C17) 16:17 | 08:38 15:39 |
| 11 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 08:07 (C17) 16:15 | 08:39 15:38 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:09 (C17) 16:13 | 08:41 15:38 |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:11 (C17) 16:11 | 08:43 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 08:13 (C17) 16:09 | 08:45 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:15 (C17) 16:07 | 08:47 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 08:17 (C17) 16:06 | 08:49 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:19 (C17) 16:04 | 08:51 15:38 |
| 18 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 08:21 (C17) 16:02 | 08:53 15:38 |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:23 (C17) 16:01 | 08:55 15:38 |
| 20 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:25 (C17) 15:59 | 08:57 15:38 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:27 (C17) 15:57 | 08:59 15:39 |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:29 (C17) 15:56 | 09:01 15:39 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:31 (C17) 15:54 | 09:03 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:33 (C17) 15:53 | 09:05 15:40 |
| 25 | 05:02 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 (C17) 17:52 | 08:35 (C17) 15:52 | 09:07 15:41 |
| 26 | 05:04 21:39 | 06:05 20:30 | 07:07 19:07 | 08:08 (C17) 17:50 | 08:37 (C17) 15:50 | 09:09 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:10 (C17) 17:47 | 08:39 (C17) 15:49 | 09:11 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:12 (C17) 17:45 | 08:41 (C17) 15:48 | 09:13 15:43 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:14 (C17) 17:43 | 08:43 (C17) 15:47 | 09:15 15:44 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:16 (C17) 17:41 | 08:45 (C17) 15:46 | 09:17 15:45 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 08:18 (C17) 17:39 | 08:47 (C17) 15:45 | 09:19 15:46 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | 138 | 263 | | 579 |
| Sun reduction | | | 0.43 | 0.26 | | 0.07 |
| Oper. time red. | | | 0.98 | 0.98 | | 0.98 |
| Wind dir. red. | | | 0.62 | 0.62 | | 0.61 |
| Total reduction | | | 0.26 | 0.16 | | 0.04 |
| Total, real | | | 36 | 41 | | 24 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Galvani 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (98)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1.01 1.91 4.85 7.09 9.29 9.83 8.40 7.53 5.47 2.70 0.68 0.49

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
441 466 538 463 487 780 784 937 1,214 1,078 832 556 8,576
Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 07:37 (C1) 19:53 | 06:49 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 08:16 (C1) 11 | 07:23 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 07:34 (C1) 19:55 | 06:46 20:58 | 04:35 21:54 | 04:31 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 08:14 (C1) 15 | 07:25 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 07:33 (C1) 19:57 | 06:43 21:00 | 04:34 21:55 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 08:12 (C1) 19 | 07:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 07:32 (C1) 19:59 | 06:41 21:02 | 04:33 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 08:10 (C1) 21 | 07:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 07:32 (C1) 20:01 | 06:38 21:04 | 04:32 21:58 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 08:09 (C1) 23 | 07:31 15:41 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 07:32 (C1) 20:03 | 06:35 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 08:08 (C1) 24 | 07:33 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:00 | 07:32 (C1) 20:05 | 06:33 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 08:07 (C1) 25 | 07:36 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 07:32 (C1) 20:08 | 06:30 21:10 | 04:30 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 08:07 (C1) 24 | 07:38 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 07:33 (C1) 20:10 | 06:27 21:12 | 04:38 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 08:08 (C1) 24 | 07:40 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 07:33 (C1) 20:12 | 06:25 21:14 | 04:39 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 08:07 (C1) 24 | 07:42 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 07:34 (C1) 20:14 | 06:22 21:16 | 04:41 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 08:07 (C1) 23 | 07:44 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 07:36 (C1) 20:16 | 06:22 21:18 | 04:42 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:09 (C1) 20 | 07:46 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 07:39 (C1) 20:18 | 06:17 21:20 | 04:46 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:11 (C1) 17 | 07:49 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 07:45 (C1) 20:20 | 06:14 21:22 | 04:46 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 08:13 (C1) 13 | 07:51 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:46 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:16 (C1) 9 | 07:53 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:48 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 08:18 (C1) 2 | 07:55 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:45 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:20 (C1) 18 | 07:57 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:45 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 16:02 | 07:59 15:38 |
| 19 | 08:36 16:18 | 07:36 17:25 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:45 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:45 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 | 08:48 15:38 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:45 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:45 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:46 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:46 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:42 | 04:46 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:47 22:10 | 05:04 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:47 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:47 | 04:48 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:15 17:48 | 05:55 18:47 | 05:37 20:51 | 04:39 21:48 | 04:48 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 | 08:51 15:44 |
| 30 | 08:19 16:41 | 07:14 17:51 | 06:54 18:49 | 05:35 20:53 | 04:38 21:50 | 04:49 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 16:40 | 07:18 15:46 | 08:22 | 08:51 15:45 |
| 31 | 08:17 16:43 | 07:13 17:51 | 06:51 19:51 | 05:31 20:51 | 04:37 21:51 | 04:49 22:01 | 05:14 21:30 | 06:15 20:17 | 07:20 16:38 | 07:20 15:49 | 08:23 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | 264 | | | | | | | 294 | | |
| Sun reduction | | 0.20 | 0.41 | | | | | | | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | | | | | | | 0.98 | | |
| Wind dir. red. | | 0.62 | 0.62 | | | | | | | 0.62 | | |
| Total reduction | | 0.12 | 0.25 | | | | | | | 0.16 | | |
| Total, real | | 4 | 66 | | | | | | | 46 | | |

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) First time (hh:mm) with flicker (WTG causing flicker first time)
Sun set (hh:mm) Minutes with flicker Last time (hh:mm) with flicker (WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Grantini 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (157)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:22 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:18 | 06:27 20:01 | 07:28 18:41 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:31 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:19 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Graudini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (175)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:30 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:26 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:06 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:39 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Gulbji - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (180)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:49 | 08:15 16:46 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:44 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:24 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:26 20:04 | 07:26 18:43 | 07:31 16:28 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:32 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:12 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:26 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:00 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:50 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:06 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:08 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:10 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Guž ani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (40)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ievas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (59)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|----------------|----------------|----------------|----------------|
| 1 | 08:51 | 08:15 | 07:11 | 07:55 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 27 08:22 (C14) | 19:53 | 20:55 |
| 2 | 08:50 | 08:13 | 07:08 | 07:55 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 26 08:21 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:56 (C14) | 06:43 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 25 08:21 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:57 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 22 08:19 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:58 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 19 08:17 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 08:01 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:56 | 17:58 | 14 08:15 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 08:04 (C14) | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | 6 08:10 (C14) | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | 06:30 | 06:56 (C13) | 05:17 |
| | 15:58 | 17:01 | 18:03 | 20:08 | 5 07:01 (C13) | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | 06:28 | 06:53 (C13) | 05:15 |
| | 16:00 | 17:03 | 18:05 | 20:10 | 9 07:02 (C13) | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | 06:25 | 06:50 (C13) | 05:13 |
| | 16:01 | 17:05 | 18:07 | 20:12 | 13 07:03 (C13) | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | 06:22 | 06:48 (C13) | 05:11 |
| | 16:03 | 17:08 | 18:09 | 20:14 | 16 07:04 (C13) | 21:16 |
| 12 | 08:44 | 07:52 | 06:42 | 06:20 | 06:45 (C13) | 05:09 |
| | 16:05 | 17:10 | 18:11 | 20:16 | 19 07:04 (C13) | 21:18 |
| 13 | 08:43 | 07:50 | 06:40 | 06:17 | 06:43 (C13) | 05:07 |
| | 16:06 | 17:12 | 18:13 | 20:18 | 21 07:04 (C13) | 21:20 |
| 14 | 08:42 | 07:47 | 06:37 | 06:15 | 06:41 (C13) | 05:05 |
| | 16:08 | 17:14 | 18:15 | 20:20 | 23 07:04 (C13) | 21:22 |
| 15 | 08:41 | 07:45 | 06:34 | 06:12 | 06:41 (C13) | 05:03 |
| | 16:10 | 17:17 | 18:18 | 20:22 | 23 07:04 (C13) | 21:24 |
| 16 | 08:40 | 07:43 | 08:10 (C14) | 06:32 | 06:09 | 06:40 (C13) |
| | 16:12 | 17:19 | 2 08:12 (C14) | 18:20 | 20:24 | 23 07:03 (C13) |
| 17 | 08:39 | 07:40 | 08:08 (C14) | 06:29 | 06:07 | 06:41 (C13) |
| | 16:14 | 17:21 | 9 08:17 (C14) | 18:22 | 20:26 | 22 07:03 (C13) |
| 18 | 08:38 | 07:38 | 08:05 (C14) | 06:26 | 06:04 | 06:41 (C13) |
| | 16:16 | 17:23 | 13 08:18 (C14) | 18:24 | 20:28 | 20 07:01 (C13) |
| 19 | 08:36 | 07:36 | 08:03 (C14) | 06:24 | 06:02 | 06:42 (C13) |
| | 16:18 | 17:26 | 17 08:20 (C14) | 18:26 | 20:31 | 18 07:00 (C13) |
| 20 | 08:35 | 07:33 | 08:00 (C14) | 06:21 | 05:59 | 06:43 (C13) |
| | 16:20 | 17:28 | 21 08:21 (C14) | 18:28 | 20:33 | 16 06:59 (C13) |
| 21 | 08:33 | 07:31 | 07:58 (C14) | 06:18 | 05:57 | 06:44 (C13) |
| | 16:22 | 17:30 | 24 08:22 (C14) | 18:30 | 20:35 | 13 06:57 (C13) |
| 22 | 08:32 | 07:28 | 07:56 (C14) | 06:16 | 05:54 | 06:47 (C13) |
| | 16:24 | 17:32 | 27 08:23 (C14) | 18:32 | 20:37 | 7 06:54 (C13) |
| 23 | 08:30 | 07:26 | 07:56 (C14) | 06:13 | 05:52 | 04:48 |
| | 16:26 | 17:34 | 28 08:24 (C14) | 18:34 | 20:39 | 21:38 |
| 24 | 08:29 | 07:23 | 07:55 (C14) | 06:10 | 05:49 | 04:47 |
| | 16:28 | 17:37 | 29 08:24 (C14) | 18:36 | 20:41 | 21:40 |
| 25 | 08:27 | 07:21 | 07:55 (C14) | 06:08 | 05:47 | 04:45 |
| | 16:30 | 17:39 | 29 08:24 (C14) | 18:39 | 20:43 | 21:42 |
| 26 | 08:26 | 07:18 | 07:55 (C14) | 06:05 | 05:44 | 04:44 |
| | 16:32 | 17:41 | 29 08:24 (C14) | 18:41 | 20:45 | 21:43 |
| 27 | 08:24 | 07:16 | 07:54 (C14) | 06:02 | 05:42 | 04:42 |
| | 16:34 | 17:43 | 29 08:23 (C14) | 18:43 | 20:47 | 21:45 |
| 28 | 08:22 | 07:13 | 07:55 (C14) | 06:00 | 05:40 | 04:41 |
| | 16:37 | 17:45 | 28 08:23 (C14) | 18:45 | 20:49 | 21:47 |
| 29 | 08:20 | | | 06:57 | 05:37 | 04:40 |
| | 16:39 | | | 19:47 | 20:51 | 21:48 |
| 30 | 08:19 | | | 06:54 | 05:35 | 04:38 |
| | 16:41 | | | 19:49 | 20:53 | 21:50 |
| 31 | 08:17 | | | 06:51 | | 04:37 |
| | 16:43 | | | 19:51 | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 285 | 139 | 248 | | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.63 | 0.63 | 0.66 | | |
| Total reduction | | 0.12 | 0.25 | 0.32 | | |
| Total, real | | 35 | 35 | 79 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ievas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (59)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------------|----------------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 06:47 (C13) 18:54 | 07:17 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 06:49 (C13) 18:51 | 07:19 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 06:51 (C13) 18:48 | 07:21 16:32 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 06:53 (C13) 18:46 | 07:23 16:30 | 08:29 15:42 |
| 5 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 08:37 (C14) 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:34 (C14) 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 08:33 (C14) 16:19 | 08:37 15:39 |
| 10 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 08:33 (C14) 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 08:30 (C14) 16:15 | 08:39 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:29 (C14) 16:13 | 08:40 15:38 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:28 (C14) 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:27 (C14) 16:10 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:27 (C14) 16:08 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 08:27 (C14) 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:26 (C14) 16:04 | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 08:26 (C14) 16:03 | 08:46 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:27 (C14) 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:27 (C14) 15:59 | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 (C13) 19:21 | 07:59 18:02 | 08:29 (C14) 15:58 | 08:49 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:49 (C13) 19:18 | 08:01 18:00 | 08:31 (C14) 15:56 | 08:49 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 06:47 (C13) 19:15 | 08:03 17:57 | 08:34 (C14) 15:55 | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 06:46 (C13) 19:12 | 08:05 17:55 | 08:36 (C14) 15:53 | 08:50 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 06:45 (C13) 19:10 | 07:07 16:52 | 07:38 (C14) 15:52 | 08:50 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 06:44 (C13) 19:07 | 07:10 16:50 | 07:45 (C14) 15:51 | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 06:43 (C13) 19:04 | 07:12 16:48 | 08:15 15:50 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 06:42 (C13) 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 06:42 (C13) 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 06:43 (C13) 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | 06:45 (C13) 18:54 | 07:20 16:38 | 08:51 15:47 | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 205 | 43 | 426 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.66 | 0.66 | 0.63 | | |
| Total reduction | | 0.32 | 0.27 | 0.16 | | |
| Total, real | | 65 | 12 | 67 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ievinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (142)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Irbites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (167)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:51 | 08:09 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:03 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:37 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:43 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:26 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:06 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:38 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:53 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:49 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:11 | 05:00 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:11 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:11 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:10 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jasmini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (93)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunberzi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (189)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------------------|----------------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 07:14 (C15) 07:30 (C15) | 05:33 20:55 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 07:11 (C15) 07:30 (C15) | 05:30 20:57 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 07:10 (C15) 07:30 (C15) | 05:28 21:00 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 07:10 (C15) 07:29 (C15) | 05:26 21:02 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 07:09 (C15) 07:28 (C15) | 05:24 21:04 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 07:10 (C15) 07:28 (C15) | 05:21 21:06 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 07:10 (C15) 07:26 (C15) | 05:19 21:08 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 07:12 (C15) 07:25 (C15) | 05:17 21:10 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 07:13 (C15) 07:22 (C15) | 05:15 21:12 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 06:43 (C14) 06:41 (C14) |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 06:24 (C14) 06:40 (C14) |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 06:27 (C14) 06:37 (C14) |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 06:33 (C14) 06:38 (C14) | 04:57 21:29 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 06:29 (C14) 06:43 (C14) | 04:55 21:31 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 06:27 (C14) 06:45 (C14) | 04:54 21:33 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 06:24 (C14) 06:46 (C14) | 04:52 21:35 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 06:23 (C14) 06:48 (C14) | 04:50 21:36 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 06:21 (C14) 06:48 (C14) | 04:49 21:38 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 06:21 (C14) 06:49 (C14) | 04:47 21:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 06:20 (C14) 06:49 (C14) | 04:45 21:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 06:19 (C14) 06:49 (C14) | 04:44 21:43 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 06:19 (C14) 06:49 (C14) | 04:42 21:45 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 06:19 (C14) 06:50 (C14) | 04:41 21:47 |
| 29 | 08:20 16:39 | 07:11 17:47 | 06:57 18:47 | 05:37 20:51 | 06:19 (C14) 06:50 (C14) | 04:40 21:48 |
| 30 | 08:18 16:41 | 07:09 17:49 | 06:54 18:49 | 05:35 20:53 | 06:19 (C14) 06:50 (C14) | 04:38 21:50 |
| 31 | 08:17 16:43 | 07:08 17:48 | 06:52 18:48 | 05:34 20:52 | 06:19 (C14) 06:50 (C14) | 04:37 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 30 | 470 | 285 | |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | | 0.66 | 0.65 | 0.65 | |
| Total reduction | | | 0.26 | 0.32 | 0.36 | |
| Total, real | | | 8 | 150 | 103 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunberzi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (189)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------------------|----------------|----------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:38 (C14) 06:49 (C14) | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 |
| 2 | 04:31 22:08 | 05:18 21:26 | 06:35 (C14) 06:51 (C14) | 06:19 20:11 | 07:19 18:51 | 16:36 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:33 (C14) 06:52 (C14) | 06:21 20:09 | 07:21 18:48 | 16:36 15:43 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:32 (C14) 06:54 (C14) | 06:23 20:06 | 07:23 18:46 | 16:36 15:43 |
| 5 | 04:34 22:07 | 05:24 21:20 | 06:31 (C14) 06:55 (C14) | 06:25 20:03 | 07:25 18:43 | 16:36 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:30 (C14) 06:55 (C14) | 06:27 20:01 | 07:28 18:40 | 16:36 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 (C14) 06:56 (C14) | 06:29 19:58 | 07:30 18:38 | 16:36 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:28 (C14) 06:57 (C14) | 06:31 19:56 | 07:32 18:35 | 16:36 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:28 (C14) 06:57 (C14) | 06:33 19:53 | 07:34 18:33 | 16:36 15:39 |
| 10 | 04:40 22:02 | 05:33 21:08 | 06:28 (C14) 06:58 (C14) | 06:35 19:50 | 07:36 18:30 | 16:36 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:27 (C14) 06:58 (C14) | 06:37 19:47 | 07:38 18:27 | 16:36 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:26 (C14) 06:57 (C14) | 06:39 19:45 | 07:40 18:25 | 16:36 15:38 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:26 (C14) 06:57 (C14) | 06:41 19:42 | 07:42 18:22 | 16:36 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:26 (C14) 06:57 (C14) | 06:43 19:39 | 07:44 18:20 | 16:36 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:26 (C14) 06:57 (C14) | 06:45 19:37 | 07:46 18:17 | 16:36 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:26 (C14) 06:57 (C14) | 06:47 19:34 | 07:48 18:15 | 16:36 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:27 (C14) 06:56 (C14) | 06:49 19:31 | 07:50 18:12 | 16:36 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:27 (C14) 06:56 (C14) | 06:51 19:29 | 07:52 18:09 | 16:36 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:27 (C14) 06:54 (C14) | 06:53 19:26 | 07:55 18:07 | 16:36 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:27 (C14) 06:53 (C14) | 06:55 19:23 | 07:57 18:04 | 16:36 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:28 (C14) 06:52 (C14) | 06:57 19:21 | 07:59 18:02 | 16:36 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:29 (C14) 06:51 (C14) | 06:59 19:18 | 08:01 18:00 | 16:36 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 06:31 (C14) 06:49 (C14) | 07:01 19:15 | 08:03 17:57 | 16:36 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 06:33 (C14) 06:46 (C14) | 07:03 19:12 | 08:05 17:55 | 16:36 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 06:38 (C14) 06:41 (C14) | 07:05 19:10 | 08:07 17:52 | 16:36 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | | 07:07 19:07 | 08:10 17:50 | 16:36 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | | 07:09 19:04 | 08:12 17:48 | 16:36 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | | 07:11 19:02 | 08:14 17:46 | 16:36 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | | 07:13 18:59 | 08:16 17:43 | 16:36 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | | 07:15 18:56 | 08:18 17:41 | 16:36 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | | | 08:20 17:38 | 16:36 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 3 | 609 | 182 | | | |
| Sun reduction | 0.49 | 0.50 | 0.43 | | | |
| Oper. time red. | 0.98 | 0.98 | 0.98 | | | |
| Wind dir. red. | 0.65 | 0.65 | 0.66 | | | |
| Total reduction | 0.31 | 0.32 | 0.27 | | | |
| Total, real | 1 | 193 | 50 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaundruvas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (23)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|---|---|---|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:49 19:53 | 05:32 20:55 | 04:36 21:53 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 18 05:28 (C17) 04:35 05:09 (C17) 21 05:29 (C17) |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 05:08 (C17) 21 05:29 (C17) |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 07:16 (C1) 05:26 14 07:30 (C1) 21:02 | 04:33 05:08 (C17) 21 05:29 (C17) |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 07:13 (C1) 05:23 19 07:32 (C1) 21:04 | 04:32 05:09 (C17) 21 05:30 (C17) |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 07:11 (C1) 05:21 24 07:35 (C1) 21:06 | 04:31 05:09 (C17) 21 05:30 (C17) |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:00 | 06:33 20:05 | 07:08 (C1) 05:19 28 07:36 (C1) 21:08 | 04:30 05:09 (C17) 21 05:30 (C17) |
| 8 | 08:48 15:58 | 08:00 17:01 | 06:53 18:03 | 07:18 (C4) 06:30 1 07:19 (C4) 20:08 | 07:06 (C1) 05:17 30 07:36 (C1) 21:10 | 04:29 05:09 (C17) 21 05:30 (C17) |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 07:16 (C4) 06:27 7 07:23 (C4) 20:10 | 07:05 (C1) 05:15 33 07:38 (C1) 21:12 | 04:28 05:09 (C17) 21 05:30 (C17) |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 07:13 (C4) 06:25 11 07:24 (C4) 20:12 | 07:04 (C1) 05:13 34 07:38 (C1) 21:14 | 04:28 05:10 (C17) 21 05:31 (C17) |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 07:10 (C4) 06:22 14 07:24 (C4) 20:14 | 07:03 (C1) 05:10 36 07:39 (C1) 21:16 | 04:27 05:09 (C17) 21 05:30 (C17) |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 07:08 (C4) 06:20 18 07:26 (C4) 20:16 | 07:02 (C1) 05:08 37 07:39 (C1) 21:18 | 04:27 05:10 (C17) 21 05:31 (C17) |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 07:06 (C4) 06:17 20 07:26 (C4) 20:18 | 07:02 (C1) 05:06 37 07:39 (C1) 21:20 | 04:26 05:11 (C17) 20 05:31 (C17) |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 07:05 (C4) 06:14 20 07:25 (C4) 20:20 | 07:01 (C1) 05:04 38 07:39 (C1) 21:22 | 04:26 05:10 (C17) 21 05:31 (C17) |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 07:04 (C4) 06:12 21 07:25 (C4) 20:22 | 07:01 (C1) 05:02 38 07:39 (C1) 21:24 | 04:26 05:10 (C17) 21 05:31 (C17) |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 07:05 (C4) 06:09 20 07:25 (C4) 20:24 | 07:00 (C1) 05:01 38 07:38 (C1) 21:25 | 04:25 05:11 (C17) 20 05:31 (C17) |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 07:05 (C4) 06:07 18 07:23 (C4) 20:26 | 07:00 (C1) 04:59 38 07:38 (C1) 21:27 | 04:25 05:11 (C17) 21 05:32 (C17) |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 07:05 (C4) 06:04 17 07:22 (C4) 20:28 | 07:00 (C1) 04:57 38 07:38 (C1) 21:29 | 04:25 05:11 (C17) 21 05:32 (C17) |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 07:07 (C4) 06:02 14 07:21 (C4) 20:30 | 07:00 (C1) 04:55 37 07:37 (C1) 21:31 | 04:25 05:11 (C17) 21 05:32 (C17) |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 07:09 (C4) 05:59 9 07:18 (C4) 20:33 | 07:00 (C1) 04:53 36 07:36 (C1) 21:33 | 04:25 05:12 (C17) 20 05:32 (C17) |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 07:00 (C1) 04:52 36 07:36 (C1) 21:35 | 04:25 05:12 (C17) 20 05:32 (C17) |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 07:01 (C1) 04:50 34 07:35 (C1) 21:37 | 04:25 05:13 (C17) 20 05:33 (C17) |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 07:01 (C1) 04:48 33 07:34 (C1) 21:38 | 04:26 05:13 (C17) 20 05:33 (C17) |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 07:02 (C1) 04:47 31 07:33 (C1) 21:40 | 05:19 (C17) 04:26 05:12 (C17) 4 05:23 (C17) 21:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 07:03 (C1) 04:45 29 07:32 (C1) 21:42 | 05:18 (C17) 04:26 05:13 (C17) 6 05:24 (C17) 21:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 07:03 (C1) 04:44 27 07:30 (C1) 21:43 | 05:17 (C17) 04:27 05:13 (C17) 8 05:25 (C17) 21:43 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 07:05 (C1) 04:42 23 07:28 (C1) 21:45 | 05:15 (C17) 04:27 05:14 (C17) 10 05:25 (C17) 21:45 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 07:07 (C1) 04:41 19 07:26 (C1) 21:47 | 05:14 (C17) 04:28 05:13 (C17) 12 05:26 (C17) 21:47 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 07:10 (C1) 04:39 13 07:23 (C1) 21:48 | 05:13 (C17) 04:28 05:14 (C17) 14 05:27 (C17) 21:48 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 05:12 (C17) 04:29 05:14 (C17) 16 05:28 (C17) 21:50 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | 05:11 (C17) 04:29 05:14 (C17) 17 05:28 (C17) 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | | 190 | 800 | 87 | 617 |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | 0.63 | 0.66 | 0.67 | 0.67 |
| Total reduction | | | 0.25 | 0.32 | 0.37 | 0.37 |
| Total, real | | | 48 | 257 | 32 | 225 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaundruvas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (23)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | | October | | | November | | | December | | |
|---------------------|-------|------|-------------|--------|------|------------|------------|-------|------------|------------|-------|------------|----------|--|-------|----------|--|--|
| 1 | 04:30 | | 05:14 (C17) | 05:16 | | | 06:17 | | 07:02 (C1) | 07:17 | | 07:46 (C4) | 07:23 | | 08:24 | | | |
| | 22:09 | 21 | 05:35 (C17) | 21:28 | | | 20:14 | 36 | 07:38 (C1) | 18:54 | 19 | 08:05 (C4) | 16:36 | | 15:45 | | | |
| 2 | 04:31 | | 05:14 (C17) | 05:17 | | | 06:19 | | 07:03 (C1) | 07:19 | | 07:48 (C4) | 07:25 | | 08:26 | | | |
| | 22:09 | 21 | 05:35 (C17) | 21:26 | | | 20:11 | 34 | 07:37 (C1) | 18:51 | 16 | 08:04 (C4) | 16:34 | | 15:44 | | | |
| 3 | 04:32 | | 05:14 (C17) | 05:19 | | | 06:21 | | 07:03 (C1) | 07:21 | | 07:50 (C4) | 07:27 | | 08:28 | | | |
| | 22:08 | 21 | 05:35 (C17) | 21:24 | | | 20:09 | 33 | 07:36 (C1) | 18:48 | 13 | 08:03 (C4) | 16:31 | | 15:43 | | | |
| 4 | 04:33 | | 05:15 (C17) | 05:21 | | | 06:23 | | 07:04 (C1) | 07:23 | | 07:52 (C4) | 07:29 | | 08:29 | | | |
| | 22:07 | 21 | 05:36 (C17) | 21:22 | | | 20:06 | 30 | 07:34 (C1) | 18:46 | 9 | 08:01 (C4) | 16:29 | | 15:42 | | | |
| 5 | 04:33 | | 05:15 (C17) | 05:23 | | | 06:25 | | 07:04 (C1) | 07:25 | | 07:54 (C4) | 07:31 | | 08:31 | | | |
| | 22:07 | 21 | 05:36 (C17) | 21:19 | | | 20:03 | 28 | 07:32 (C1) | 18:43 | 4 | 07:58 (C4) | 16:27 | | 15:41 | | | |
| 6 | 04:35 | | 05:15 (C17) | 05:25 | | | 06:27 | | 07:06 (C1) | 07:27 | | | 07:33 | | 08:32 | | | |
| | 22:06 | 21 | 05:36 (C17) | 21:17 | | | 20:01 | 24 | 07:30 (C1) | 18:40 | | | 16:25 | | 15:41 | | | |
| 7 | 04:36 | | 05:15 (C17) | 05:27 | | | 06:29 | | 07:08 (C1) | 07:29 | | | 07:36 | | 08:34 | | | |
| | 22:05 | 21 | 05:36 (C17) | 21:15 | | | 19:58 | 19 | 07:27 (C1) | 18:38 | | | 16:23 | | 15:40 | | | |
| 8 | 04:37 | | 05:16 (C17) | 05:29 | | | 06:31 | | 07:10 (C1) | 07:32 | | | 07:38 | | 08:35 | | | |
| | 22:04 | 20 | 05:36 (C17) | 21:13 | | | 19:55 | 14 | 07:24 (C1) | 18:35 | | | 16:21 | | 15:40 | | | |
| 9 | 04:38 | | 05:16 (C17) | 05:31 | | | 06:33 | | | 07:34 | | | 07:40 | | 08:37 | | | |
| | 22:03 | 20 | 05:36 (C17) | 21:11 | | | 19:53 | | | 18:32 | | | 16:19 | | 15:39 | | | |
| 10 | 04:39 | | 05:16 (C17) | 05:33 | | | 06:35 | | | 07:36 | | | 07:42 | | 08:38 | | | |
| | 22:02 | 20 | 05:36 (C17) | 21:08 | | | 19:50 | | | 18:30 | | | 16:17 | | 15:39 | | | |
| 11 | 04:41 | | 05:17 (C17) | 05:35 | | | 06:37 | | | 07:38 | | | 07:44 | | 08:39 | | | |
| | 22:01 | 19 | 05:36 (C17) | 21:06 | | | 19:47 | | | 18:27 | | | 16:15 | | 15:38 | | | |
| 12 | 04:42 | | 05:19 (C17) | 05:37 | | | 06:39 | | | 07:40 | | | 07:46 | | 08:40 | | | |
| | 22:00 | 18 | 05:37 (C17) | 21:04 | | | 19:45 | | | 18:25 | | | 16:13 | | 15:38 | | | |
| 13 | 04:43 | | 05:20 (C17) | 05:39 | | 07:21 (C1) | 06:41 | | | 07:42 | | | 07:49 | | 08:42 | | | |
| | 21:59 | 16 | 05:36 (C17) | 21:01 | 7 | 07:28 (C1) | 19:42 | | | 18:22 | | | 16:11 | | 15:38 | | | |
| 14 | 04:45 | | 05:21 (C17) | 05:41 | | | 07:17 (C1) | 06:43 | | 07:44 | | | 07:51 | | 08:43 | | | |
| | 21:58 | 15 | 05:36 (C17) | 20:59 | 15 | 07:32 (C1) | 19:39 | | | 18:19 | | | 16:09 | | 15:38 | | | |
| 15 | 04:46 | | 05:22 (C17) | 05:43 | | | 07:14 (C1) | 06:45 | | 07:46 | | | 07:53 | | 08:44 | | | |
| | 21:57 | 13 | 05:35 (C17) | 20:57 | 20 | 07:34 (C1) | 19:37 | | | 18:17 | | | 16:07 | | 15:38 | | | |
| 16 | 04:48 | | 05:24 (C17) | 05:45 | | | 07:12 (C1) | 06:47 | | 07:48 | | | 07:55 | | 08:45 | | | |
| | 21:55 | 11 | 05:35 (C17) | 20:54 | 24 | 07:36 (C1) | 19:34 | | | 18:14 | | | 16:06 | | 15:38 | | | |
| 17 | 04:49 | | 05:25 (C17) | 05:47 | | | 07:10 (C1) | 06:49 | | 07:50 | | | 07:57 | | 08:46 | | | |
| | 21:54 | 9 | 05:34 (C17) | 20:52 | 26 | 07:36 (C1) | 19:31 | | | 18:12 | | | 16:04 | | 15:38 | | | |
| 18 | 04:51 | | 05:27 (C17) | 05:49 | | | 07:08 (C1) | 06:51 | | 07:52 | | | 07:59 | | 08:46 | | | |
| | 21:52 | 7 | 05:34 (C17) | 20:50 | 30 | 07:38 (C1) | 19:29 | | | 18:09 | | | 16:02 | | 15:38 | | | |
| 19 | 04:52 | | 05:28 (C17) | 05:51 | | | 07:07 (C1) | 06:53 | | 07:55 | | | 08:01 | | 08:47 | | | |
| | 21:51 | 5 | 05:33 (C17) | 20:47 | 32 | 07:39 (C1) | 19:26 | | | 18:07 | | | 16:01 | | 15:38 | | | |
| 20 | 04:54 | | 05:30 (C17) | 05:53 | | | 07:06 (C1) | 06:55 | | 07:57 | | | 08:03 | | 08:48 | | | |
| | 21:49 | 2 | 05:32 (C17) | 20:45 | 33 | 07:39 (C1) | 19:23 | | | 18:04 | | | 15:59 | | 15:38 | | | |
| 21 | 04:56 | | | 05:55 | | | 07:06 (C1) | 06:57 | | 07:59 | | | 08:05 | | 08:48 | | | |
| | 21:48 | | | 20:42 | 34 | 07:40 (C1) | 19:20 | | | 18:02 | | | 15:58 | | 15:39 | | | |
| 22 | 04:57 | | | 05:57 | | | 07:05 (C1) | 06:59 | | 08:01 | | | 08:07 | | 08:49 | | | |
| | 21:46 | | | 20:40 | 36 | 07:41 (C1) | 19:18 | | | 17:59 | | | 15:56 | | 15:39 | | | |
| 23 | 04:59 | | | 05:59 | | | 07:04 (C1) | 07:01 | | 07:53 (C4) | 08:03 | | 08:09 | | 08:50 | | | |
| | 21:45 | | | 20:37 | 37 | 07:41 (C1) | 19:15 | | 8 | 08:01 (C4) | 17:57 | | 15:55 | | 15:40 | | | |
| 24 | 05:01 | | | 06:01 | | | 07:04 (C1) | 07:03 | | 07:50 (C4) | 08:05 | | 08:11 | | 08:50 | | | |
| | 21:43 | | | 20:35 | 37 | 07:41 (C1) | 19:12 | | 13 | 08:03 (C4) | 17:55 | | 15:53 | | 15:40 | | | |
| 25 | 05:03 | | | 06:03 | | | 07:03 (C1) | 07:05 | | 07:48 (C4) | 07:07 | | 08:13 | | 08:50 | | | |
| | 21:41 | | | 20:32 | 38 | 07:41 (C1) | 19:10 | | 16 | 08:04 (C4) | 16:52 | | 15:52 | | 15:41 | | | |
| 26 | 05:04 | | | 06:05 | | | 07:02 (C1) | 07:07 | | 07:48 (C4) | 07:10 | | 08:15 | | 08:51 | | | |
| | 21:39 | | | 20:29 | 38 | 07:40 (C1) | 19:07 | | 18 | 08:06 (C4) | 16:50 | | 15:51 | | 15:42 | | | |
| 27 | 05:06 | | | 06:07 | | | 07:02 (C1) | 07:09 | | 07:47 (C4) | 07:12 | | 08:17 | | 08:51 | | | |
| | 21:38 | | | 20:27 | 38 | 07:40 (C1) | 19:04 | | 19 | 08:06 (C4) | 16:47 | | 15:49 | | 15:43 | | | |
| 28 | 05:08 | | | 06:09 | | | 07:02 (C1) | 07:11 | | 07:46 (C4) | 07:14 | | 08:19 | | 08:51 | | | |
| | 21:36 | | | 20:24 | 38 | 07:40 (C1) | 19:02 | | 20 | 08:06 (C4) | 16:45 | | 15:48 | | 15:44 | | | |
| 29 | 05:10 | | | 06:11 | | | 07:02 (C1) | 07:13 | | 07:46 (C4) | 07:16 | | 08:21 | | 08:51 | | | |
| | 21:34 | | | 20:22 | 38 | 07:40 (C1) | 18:59 | | 20 | 08:06 (C4) | 16:43 | | 15:47 | | 15:44 | | | |
| 30 | 05:12 | | | 06:13 | | | 07:02 (C1) | 07:15 | | 07:45 (C4) | 07:18 | | 08:22 | | 08:51 | | | |
| | 21:32 | | | 20:19 | 37 | 07:39 (C1) | 18:56 | | 21 | 08:06 (C4) | 16:40 | | 15:46 | | 15:45 | | | |
| 31 | 05:14 | | | 06:15 | | | 07:02 (C1) | | | 07:20 | | | | | 08:51 | | | |
| | 21:30 | | | 20:17 | 36 | 07:38 (C1) | | | | 16:38 | | | | | 15:47 | | | |
| Potential sun hours | 529 | | | 469 | | | 385 | | | 324 | | | 247 | | 216 | | | |
| Total, worst case | | 322 | | | 594 | | | 353 | | | 61 | | | | | | | |
| Sun reduction | | 0.49 | | | 0.50 | | | 0.43 | | | 0.26 | | | | | | | |
| Oper. time red. | | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | | | | | | |
| Wind dir. red. | | 0.67 | | | 0.66 | | | 0.65 | | | 0.63 | | | | | | | |
| Total reduction | | 0.32 | | | 0.32 | | | 0.27 | | | 0.16 | | | | | | | |
| Total, real | | 104 | | | 190 | | | 95 | | | 10 | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

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0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaundruvas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (113)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| January | | February | | March | | April | | May | | June | |
|---------------------|----------------|----------------------------|----------------|----------------|------------|----------------|------------|----------------|--------------------------|----------------|-------------|
| 1 | 08:51 15:48 | 13:30 (C13) 13:33 (C13) | 08:15 16:45 | 07:11 17:47 | | 06:49 19:53 | | 05:32 20:55 | 06:38 (C1) 07:18 (C1) | 04:36 21:53 | |
| 2 | 08:50 15:49 | | 08:13 16:47 | 07:08 17:50 | | 06:46 19:55 | | 05:30 20:57 | 06:39 (C1) 07:18 (C1) | 04:35 21:54 | |
| 3 | 08:50 15:51 | | 08:11 16:50 | 07:06 17:52 | | 06:43 19:57 | | 05:28 21:00 | 06:39 (C1) 07:17 (C1) | 04:34 21:55 | 05:08 (C17) |
| 4 | 08:50 15:52 | | 08:09 16:52 | 07:03 17:54 | | 06:41 19:59 | | 05:26 21:02 | 06:39 (C1) 07:17 (C1) | 04:33 21:57 | 05:07 (C17) |
| 5 | 08:49 15:53 | | 08:07 16:54 | 07:00 17:56 | | 06:38 20:01 | | 05:23 21:04 | 06:40 (C1) 07:16 (C1) | 04:32 21:58 | 05:11 (C17) |
| 6 | 08:49 15:55 | | 08:05 16:56 | 06:58 17:58 | | 06:35 20:03 | | 05:21 21:06 | 06:41 (C1) 07:15 (C1) | 04:31 21:59 | 05:07 (C17) |
| 7 | 08:48 15:56 | | 08:03 16:59 | 06:55 18:00 | | 06:33 20:05 | | 05:19 21:08 | 06:41 (C1) 07:14 (C1) | 04:30 22:00 | 05:05 (C17) |
| 8 | 08:48 15:58 | | 08:00 17:01 | 06:53 18:03 | | 06:30 20:08 | | 05:17 21:10 | 06:42 (C1) 07:13 (C1) | 04:29 22:01 | 05:13 (C17) |
| 9 | 08:47 15:59 | | 07:58 17:03 | 06:50 18:05 | | 06:27 20:10 | | 05:15 21:12 | 06:43 (C1) 07:12 (C1) | 04:28 22:02 | 05:15 (C17) |
| 10 | 08:46 16:01 | | 07:56 17:05 | 06:47 18:07 | | 06:25 20:12 | | 05:13 21:14 | 06:44 (C1) 07:10 (C1) | 04:28 22:03 | 05:04 (C17) |
| 11 | 08:45 16:03 | | 07:54 17:08 | 06:45 18:09 | | 06:22 20:14 | | 05:10 21:16 | 06:45 (C1) 07:09 (C1) | 04:27 22:04 | 05:16 (C17) |
| 12 | 08:44 16:04 | | 07:52 17:10 | 06:42 18:11 | 07:08 (C4) | 06:20 20:16 | | 05:08 21:18 | 06:47 (C1) 07:07 (C1) | 04:27 22:05 | 05:03 (C17) |
| 13 | 08:43 16:06 | | 07:49 17:12 | 06:39 18:13 | 07:05 (C4) | 06:17 20:18 | 06:55 (C1) | 05:06 21:20 | 06:49 (C1) 07:04 (C1) | 04:26 22:06 | 05:16 (C17) |
| 14 | 08:42 16:08 | | 07:47 17:14 | 06:37 18:15 | 07:02 (C4) | 06:14 20:20 | 07:10 (C1) | 05:04 21:22 | 06:51 (C1) 07:01 (C1) | 04:26 22:07 | 05:17 (C17) |
| 15 | 08:41 16:10 | | 07:45 17:17 | 06:34 18:17 | 06:59 (C4) | 06:12 20:22 | 07:10 (C1) | 05:02 21:24 | 06:53 (C1) 07:01 (C1) | 04:26 22:07 | 05:02 (C17) |
| 16 | 08:40 16:12 | | 07:43 17:19 | 06:31 18:20 | 06:57 (C4) | 06:09 20:24 | 07:15 (C1) | 05:01 21:25 | 06:50 (C1) 07:16 (C1) | 04:25 22:08 | 05:17 (C17) |
| 17 | 08:39 16:14 | | 07:40 17:21 | 06:29 18:22 | 06:57 (C4) | 06:07 20:26 | 07:16 (C1) | 04:59 21:27 | 06:46 (C1) 07:17 (C1) | 04:25 22:08 | 05:02 (C17) |
| 18 | 08:37 16:16 | | 07:38 17:23 | 06:26 18:24 | 06:56 (C4) | 06:04 20:28 | 07:17 (C1) | 04:57 21:29 | 06:44 (C1) 07:18 (C1) | 04:25 22:09 | 05:18 (C17) |
| 19 | 08:36 16:18 | | 07:35 17:25 | 06:23 18:26 | 06:54 (C4) | 06:02 20:30 | 07:18 (C1) | 04:55 21:31 | 06:43 (C1) 07:19 (C1) | 04:25 22:09 | 05:02 (C17) |
| 20 | 08:35 16:20 | | 07:33 17:28 | 06:21 18:28 | 06:53 (C4) | 05:59 20:33 | 07:19 (C1) | 04:53 21:33 | 06:42 (C1) 07:20 (C1) | 04:25 22:10 | 05:18 (C17) |
| 21 | 08:33 16:22 | | 07:31 17:30 | 06:18 18:30 | 06:56 (C4) | 05:57 20:35 | 07:20 (C1) | 04:52 21:35 | 06:41 (C1) 07:21 (C1) | 04:25 22:10 | 05:02 (C17) |
| 22 | 08:32 16:24 | | 07:28 17:32 | 06:15 18:32 | 06:58 (C4) | 05:54 20:37 | 07:21 (C1) | 04:50 21:36 | 06:41 (C1) 07:22 (C1) | 04:25 22:10 | 05:18 (C17) |
| 23 | 08:30 16:26 | | 07:26 17:34 | 06:13 18:34 | 06:59 (C4) | 05:52 20:39 | 07:22 (C1) | 04:48 21:38 | 06:39 (C1) 07:23 (C1) | 04:26 22:10 | 05:03 (C17) |
| 24 | 08:29 16:28 | | 07:23 17:37 | 06:10 18:36 | 07:12 (C4) | 05:49 20:41 | 07:24 (C1) | 04:47 21:40 | 06:39 (C1) 07:24 (C1) | 04:26 22:10 | 05:19 (C17) |
| 25 | 08:27 16:30 | | 07:21 17:39 | 06:07 18:38 | 07:09 (C4) | 05:47 20:43 | 07:25 (C1) | 04:45 21:42 | 06:39 (C1) 07:25 (C1) | 04:26 22:10 | 05:04 (C17) |
| 26 | 08:26 16:32 | | 07:18 17:41 | 06:05 18:40 | | 05:44 20:45 | 07:26 (C1) | 04:44 21:43 | 06:38 (C1) 07:26 (C1) | 04:27 22:10 | 05:20 (C17) |
| 27 | 08:24 16:34 | | 07:16 17:43 | 06:02 18:43 | | 05:42 20:47 | 07:27 (C1) | 04:42 21:45 | 06:38 (C1) 07:27 (C1) | 04:27 22:10 | 05:05 (C17) |
| 28 | 08:22 16:36 | | 07:13 17:45 | 05:59 18:45 | | 05:39 20:49 | 07:28 (C1) | 04:41 21:47 | 06:38 (C1) 07:28 (C1) | 04:28 22:10 | 05:20 (C17) |
| 29 | 08:20 16:39 | | | 05:57 19:47 | | 05:37 20:51 | 07:29 (C1) | 04:39 21:48 | 06:39 (C1) 07:29 (C1) | 04:28 22:10 | 05:06 (C17) |
| 30 | 08:18 16:41 | | | 06:54 19:49 | | 05:35 20:53 | 07:30 (C1) | 04:38 21:50 | 06:38 (C1) 07:30 (C1) | 04:29 22:09 | 05:20 (C17) |
| 31 | 08:17 16:43 | | | 06:51 19:51 | | | | 04:37 21:51 | | | 05:07 (C17) |
| Potential sun hours | 235 | | 266 | 366 | | 426 | | 508 | | 529 | |
| Total, worst case | 3 | | | 214 | | 635 | | 411 | | 361 | |
| Sun reduction | 0.13 | | | 0.41 | | 0.50 | | 0.57 | | 0.56 | |
| Oper. time red. | 0.98 | | | 0.98 | | 0.98 | | 0.98 | | 0.98 | |
| Wind dir. red. | 0.64 | | | 0.63 | | 0.66 | | 0.66 | | 0.67 | |
| Total reduction | 0.08 | | | 0.25 | | 0.32 | | 0.36 | | 0.36 | |
| Total, real | 0 | | | 54 | | 203 | | 150 | | 131 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaundruvas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (113)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|----------------|-------|---------------|-------|---------|---------------|----------|-------|----------|-------------|
| 1 | 04:30 | 05:07 (C17) | 05:16 | 06:57 (C1) | 06:17 | 07:17 | 07:46 (C4) | 07:23 | 08:24 | | |
| | 22:09 | 13 05:20 (C17) | 21:28 | 21 07:18 (C1) | 20:14 | 18:54 | 9 07:55 (C4) | 16:36 | 15:45 | | |
| 2 | 04:31 | 05:08 (C17) | 05:17 | 06:55 (C1) | 06:19 | 07:19 | 07:48 (C4) | 07:25 | 08:26 | | |
| | 22:09 | 12 05:20 (C17) | 21:26 | 24 07:19 (C1) | 20:11 | 18:51 | 3 07:51 (C4) | 16:34 | 15:44 | | |
| 3 | 04:32 | 05:09 (C17) | 05:19 | 06:54 (C1) | 06:21 | 07:21 | | 07:27 | 08:28 | | |
| | 22:08 | 11 05:20 (C17) | 21:24 | 27 07:21 (C1) | 20:09 | 18:48 | | 16:31 | 15:43 | | |
| 4 | 04:33 | 05:10 (C17) | 05:21 | 06:53 (C1) | 06:23 | 07:23 | | 07:29 | 08:29 | | |
| | 22:07 | 10 05:20 (C17) | 21:22 | 29 07:22 (C1) | 20:06 | 18:46 | | 16:29 | 15:42 | | |
| 5 | 04:33 | 05:11 (C17) | 05:23 | 06:51 (C1) | 06:25 | 07:25 | | 07:31 | 08:31 | | |
| | 22:07 | 9 05:20 (C17) | 21:19 | 32 07:23 (C1) | 20:03 | 18:43 | | 16:27 | 15:41 | | |
| 6 | 04:35 | 05:12 (C17) | 05:25 | 06:50 (C1) | 06:27 | 07:27 | | 07:33 | 08:32 | | |
| | 22:06 | 8 05:20 (C17) | 21:17 | 34 07:24 (C1) | 20:01 | 18:40 | | 16:25 | 15:41 | | |
| 7 | 04:36 | 05:13 (C17) | 05:27 | 06:50 (C1) | 06:29 | 07:29 | | 07:36 | 08:34 | | |
| | 22:05 | 6 05:19 (C17) | 21:15 | 35 07:25 (C1) | 19:58 | 18:38 | | 16:23 | 15:40 | | |
| 8 | 04:37 | 05:14 (C17) | 05:29 | 06:49 (C1) | 06:31 | 07:32 | | 07:38 | 08:35 | | |
| | 22:04 | 5 05:19 (C17) | 21:13 | 36 07:25 (C1) | 19:55 | 18:35 | | 16:21 | 15:40 | | |
| 9 | 04:38 | 05:15 (C17) | 05:31 | 06:49 (C1) | 06:33 | 07:34 | | 07:40 | 08:37 | | |
| | 22:03 | 3 05:18 (C17) | 21:11 | 37 07:26 (C1) | 19:53 | 18:32 | | 16:19 | 15:39 | | |
| 10 | 04:39 | 05:16 (C17) | 05:33 | 06:47 (C1) | 06:35 | 07:36 | | 07:42 | 08:38 | | |
| | 22:02 | 1 05:17 (C17) | 21:08 | 39 07:26 (C1) | 19:50 | 18:30 | | 16:17 | 15:39 | | |
| 11 | 04:41 | | 05:35 | 06:47 (C1) | 06:37 | 07:38 | | 07:44 | 08:39 | | 13:21 (C13) |
| | 22:01 | | 21:06 | 39 07:26 (C1) | 19:47 | 18:27 | | 16:15 | 15:38 | 2 | 13:23 (C13) |
| 12 | 04:42 | | 05:37 | 06:46 (C1) | 06:39 | 07:40 | | 07:46 | 08:40 | | 13:20 (C13) |
| | 22:00 | | 21:04 | 41 07:27 (C1) | 19:45 | 18:25 | | 16:13 | 15:38 | 6 | 13:26 (C13) |
| 13 | 04:43 | | 05:39 | 06:46 (C1) | 06:41 | 07:42 | | 07:49 | 08:42 | | 13:19 (C13) |
| | 21:59 | | 21:01 | 41 07:27 (C1) | 19:42 | 18:22 | | 16:11 | 15:38 | 8 | 13:27 (C13) |
| 14 | 04:45 | | 05:41 | 06:46 (C1) | 06:43 | 07:44 | | 07:51 | 08:43 | | 13:18 (C13) |
| | 21:58 | | 20:59 | 41 07:27 (C1) | 19:39 | 18:19 | | 16:09 | 15:38 | 11 | 13:29 (C13) |
| 15 | 04:46 | | 05:43 | 06:46 (C1) | 06:45 | 07:46 | | 07:53 | 08:44 | | 13:18 (C13) |
| | 21:57 | | 20:57 | 41 07:27 (C1) | 19:37 | 18:17 | | 16:07 | 15:38 | 11 | 13:29 (C13) |
| 16 | 04:48 | | 05:45 | 06:46 (C1) | 06:47 | 07:48 | | 07:55 | 08:45 | | 13:18 (C13) |
| | 21:55 | | 20:54 | 41 07:27 (C1) | 19:34 | 18:14 | | 16:06 | 15:38 | 12 | 13:30 (C13) |
| 17 | 04:49 | | 05:47 | 06:45 (C1) | 06:49 | 07:50 | | 07:57 | 08:46 | | 13:18 (C13) |
| | 21:54 | | 20:52 | 41 07:26 (C1) | 19:31 | 18:12 | | 16:04 | 15:38 | 13 | 13:31 (C13) |
| 18 | 04:51 | | 05:49 | 06:45 (C1) | 06:51 | 07:52 | | 07:59 | 08:46 | | 13:19 (C13) |
| | 21:52 | | 20:50 | 41 07:26 (C1) | 19:29 | 18:09 | | 16:02 | 15:38 | 13 | 13:32 (C13) |
| 19 | 04:52 | | 05:51 | 06:45 (C1) | 06:53 | 07:55 | 07:49 (C4) | 08:01 | 08:47 | | 13:18 (C13) |
| | 21:51 | | 20:47 | 41 07:26 (C1) | 19:26 | 18:07 | 7 07:56 (C4) | 16:01 | 15:38 | 14 | 13:32 (C13) |
| 20 | 04:54 | | 05:53 | 06:45 (C1) | 06:55 | 07:57 | 07:46 (C4) | 08:03 | 08:48 | | 13:19 (C13) |
| | 21:49 | | 20:45 | 40 07:25 (C1) | 19:23 | 18:04 | 12 07:58 (C4) | 15:59 | 15:38 | 14 | 13:33 (C13) |
| 21 | 04:56 | | 05:55 | 06:45 (C1) | 06:57 | 07:59 | 07:44 (C4) | 08:05 | 08:48 | | 13:20 (C13) |
| | 21:48 | | 20:42 | 40 07:25 (C1) | 19:20 | 18:02 | 16 08:00 (C4) | 15:58 | 15:39 | 14 | 13:34 (C13) |
| 22 | 04:57 | | 05:57 | 06:46 (C1) | 06:59 | 08:01 | 07:41 (C4) | 08:07 | 08:49 | | 13:20 (C13) |
| | 21:46 | | 20:40 | 38 07:24 (C1) | 19:18 | 17:59 | 19 08:00 (C4) | 15:56 | 15:39 | 14 | 13:34 (C13) |
| 23 | 04:59 | | 05:59 | 06:46 (C1) | 07:01 | 08:03 | 07:40 (C4) | 08:09 | 08:50 | | 13:21 (C13) |
| | 21:45 | | 20:37 | 37 07:23 (C1) | 19:15 | 17:57 | 20 08:00 (C4) | 15:55 | 15:40 | 14 | 13:35 (C13) |
| 24 | 05:01 | | 06:01 | 06:47 (C1) | 07:03 | 08:05 | 07:39 (C4) | 08:11 | 08:50 | | 13:21 (C13) |
| | 21:43 | | 20:35 | 35 07:22 (C1) | 19:12 | 17:55 | 21 08:00 (C4) | 15:53 | 15:40 | 14 | 13:35 (C13) |
| 25 | 05:03 | | 06:03 | 06:48 (C1) | 07:05 | 08:07 | 07:39 (C4) | 08:13 | 08:50 | | 13:21 (C13) |
| | 21:41 | | 20:32 | 33 07:21 (C1) | 19:10 | 17:52 | 21 08:00 (C4) | 15:52 | 15:41 | 14 | 13:35 (C13) |
| 26 | 05:04 | | 06:05 | 06:48 (C1) | 07:07 | 08:09 | 07:38 (C4) | 08:15 | 08:51 | | 13:22 (C13) |
| | 21:39 | | 20:29 | 31 07:19 (C1) | 19:07 | 17:50 | 22 08:00 (C4) | 15:51 | 15:42 | 13 | 13:35 (C13) |
| 27 | 05:06 | | 06:07 | 06:49 (C1) | 07:09 | 08:12 | 07:39 (C4) | 08:17 | 08:51 | | 13:23 (C13) |
| | 21:38 | | 20:27 | 28 07:17 (C1) | 19:04 | 17:47 | 21 08:00 (C4) | 15:49 | 15:43 | 12 | 13:35 (C13) |
| 28 | 05:08 | | 06:09 | 06:50 (C1) | 07:11 | 08:14 | 07:40 (C4) | 08:19 | 08:51 | | 13:24 (C13) |
| | 21:36 | | 20:24 | 25 07:15 (C1) | 19:02 | 17:45 | 19 07:59 (C4) | 15:48 | 15:44 | 11 | 13:35 (C13) |
| 29 | 05:10 | | 06:11 | 06:52 (C1) | 07:13 | 08:16 | 07:42 (C4) | 08:21 | 08:51 | | 13:25 (C13) |
| | 21:34 | | 20:22 | 21 07:13 (C1) | 18:59 | 17:43 | 16 07:58 (C4) | 15:47 | 15:44 | 11 | 13:36 (C13) |
| 30 | 05:12 | 07:02 (C1) | 06:13 | 06:55 (C1) | 07:15 | 08:18 | 07:44 (C4) | 08:22 | 08:51 | | 13:26 (C13) |
| | 21:32 | 11 07:13 (C1) | 20:19 | 15 07:10 (C1) | 18:56 | 17:40 | 13 07:57 (C4) | 15:46 | 15:45 | 10 | 13:36 (C13) |
| 31 | 05:14 | 06:59 (C1) | 06:15 | | | 08:20 | | 08:51 | | | 13:28 (C13) |
| | 21:30 | 17 07:16 (C1) | 20:17 | | | 16:38 | | 15:47 | 7 | | 13:35 (C13) |
| Potential sun hours | 529 | | 469 | | 385 | 324 | | 247 | 216 | | |
| Total, worst case | 106 | | 1024 | | 207 | 12 | | | | | 238 |
| Sun reduction | 0.49 | | 0.50 | | 0.43 | 0.26 | | | | | 0.07 |
| Oper. time red. | 0.98 | | 0.98 | | 0.98 | 0.98 | | | | | 0.98 |
| Wind dir. red. | 0.66 | | 0.66 | | 0.63 | 0.63 | | | | | 0.64 |
| Total reduction | 0.32 | | 0.32 | | 0.26 | 0.16 | | | | | 0.04 |
| Total, real | 34 | | 327 | | 55 | 2 | | | | | 10 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunie Robežnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (222)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:13 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:25 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunjosti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (182)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:46 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:20 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:22 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:24 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:26 20:04 | 07:26 18:43 | 07:31 16:28 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:28 20:01 | 07:28 18:41 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:30 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:32 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:12 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:09 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:26 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:54 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:50 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:04 20:32 | 07:05 19:10 | 07:08 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:06 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:08 20:27 | 07:09 19:05 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:10 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunlakstīgalas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (63)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------------|----------------------|----------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 06:00 (C13) 21:53 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 06:20 (C13) 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 06:20 (C13) 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 06:20 (C13) 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 06:00 (C13) 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 06:00 (C13) 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 06:01 (C13) 22:00 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 06:02 (C13) 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 06:03 (C13) 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 06:05 (C13) 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 06:13 (C13) 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 07:08 (C14) 20:16 | 05:09 21:18 | 06:20 (C13) 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 07:05 (C14) 20:18 | 05:07 21:20 | 06:17 (C13) 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 07:02 (C14) 20:20 | 05:05 21:22 | 06:15 (C13) 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 07:00 (C14) 20:22 | 05:03 21:24 | 06:13 (C13) 22:08 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:57 (C14) 20:24 | 05:01 21:25 | 06:11 (C13) 22:09 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:55 (C14) 20:26 | 04:59 21:27 | 06:09 (C13) 22:10 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:54 (C14) 20:28 | 04:57 21:29 | 06:07 (C13) 22:11 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:54 (C14) 20:31 | 04:55 21:31 | 06:05 (C13) 22:12 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:54 (C14) 20:33 | 04:54 21:33 | 06:03 (C13) 22:13 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 06:53 (C14) 20:35 | 04:52 21:35 | 06:01 (C13) 22:14 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 06:53 (C14) 20:37 | 04:50 21:37 | 06:00 (C13) 22:15 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 06:53 (C14) 20:39 | 04:48 21:38 | 06:00 (C13) 22:16 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 06:53 (C14) 20:41 | 04:47 21:40 | 06:00 (C13) 22:17 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 06:54 (C14) 20:43 | 06:14 (C13) 21:42 | 06:00 (C13) 22:18 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 06:54 (C14) 20:45 | 06:11 (C13) 21:43 | 06:00 (C13) 22:19 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 06:55 (C14) 20:47 | 06:09 (C13) 21:45 | 06:00 (C13) 22:20 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 06:57 (C14) 20:49 | 06:07 (C13) 21:47 | 06:00 (C13) 22:21 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 07:58 (C14) 20:51 | 06:05 (C13) 21:48 | 06:00 (C13) 22:22 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 08:02 (C14) 20:53 | 06:03 (C13) 21:50 | 06:00 (C13) 22:23 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 440 | 68 | 173 | |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | | 0.63 | 0.66 | 0.66 | |
| Total reduction | | | 0.25 | 0.32 | 0.37 | |
| Total, real | | | 112 | 22 | 64 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunlakstīgalas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (63)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|----------------|----------------|----------------|----------|
| 1 | 04:30 | 05:16 | 06:17 | 07:17 | 07:46 (C14) | 07:23 |
| | 22:09 | 21:28 | 20:14 | 18:54 | 12 07:58 (C14) | 16:36 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 07:48 (C14) | 07:25 |
| | 22:09 | 21:26 | 2 06:20 (C13) | 18:51 | 5 07:53 (C14) | 16:34 |
| 3 | 04:32 | 05:20 | 06:14 (C13) | 07:21 | | 07:27 |
| | 22:08 | 21:24 | 10 06:24 (C13) | 18:48 | | 16:32 |
| 4 | 04:33 | 05:22 | 06:13 (C13) | 07:23 | | 07:29 |
| | 22:07 | 21:22 | 13 06:26 (C13) | 18:46 | | 16:30 |
| 5 | 04:34 | 05:24 | 06:12 (C13) | 07:25 | | 16:31 |
| | 22:07 | 21:20 | 15 06:27 (C13) | 18:43 | | 16:27 |
| 6 | 04:35 | 05:25 | 06:10 (C13) | 07:28 | | 16:33 |
| | 22:06 | 21:17 | 17 06:27 (C13) | 18:40 | | 16:25 |
| 7 | 04:36 | 05:27 | 06:09 (C13) | 07:30 | | 16:36 |
| | 22:05 | 21:15 | 19 06:28 (C13) | 18:38 | | 16:23 |
| 8 | 04:37 | 05:29 | 06:09 (C13) | 07:32 | | 16:38 |
| | 22:04 | 21:13 | 20 06:29 (C13) | 18:35 | | 16:21 |
| 9 | 04:38 | 05:31 | 06:09 (C13) | 07:34 | | 16:40 |
| | 22:03 | 21:11 | 20 06:29 (C13) | 18:33 | | 16:19 |
| 10 | 04:40 | 05:33 | 06:08 (C13) | 07:36 | | 16:42 |
| | 22:02 | 21:08 | 22 06:30 (C13) | 18:30 | | 16:17 |
| 11 | 04:41 | 05:35 | 06:08 (C13) | 07:38 | | 16:44 |
| | 22:01 | 21:06 | 22 06:30 (C13) | 18:27 | | 16:15 |
| 12 | 04:42 | 05:37 | 06:09 (C13) | 07:40 | | 16:46 |
| | 22:00 | 21:04 | 20 06:29 (C13) | 18:25 | | 16:13 |
| 13 | 04:44 | 05:39 | 06:11 (C13) | 07:42 | | 16:48 |
| | 21:59 | 21:02 | 18 06:29 (C13) | 3 07:58 (C14) | | 16:11 |
| 14 | 04:45 | 05:41 | 06:13 (C13) | 07:49 | | 16:51 |
| | 21:58 | 20:59 | 15 06:28 (C13) | 14 08:03 (C14) | | 16:10 |
| 15 | 04:46 | 05:43 | 06:15 (C13) | 07:47 | | 16:53 |
| | 21:57 | 20:57 | 13 06:28 (C13) | 18 08:05 (C14) | | 16:08 |
| 16 | 04:48 | 05:45 | 06:17 (C13) | 07:45 | | 16:55 |
| | 21:55 | 20:54 | 10 06:27 (C13) | 21 08:06 (C14) | | 16:06 |
| 17 | 04:49 | 05:47 | 06:19 (C13) | 07:43 | | 16:57 |
| | 21:54 | 20:52 | 7 06:26 (C13) | 24 08:07 (C14) | | 16:04 |
| 18 | 04:51 | 05:49 | 06:21 (C13) | 07:42 | | 16:59 |
| | 21:52 | 20:50 | 3 06:24 (C13) | 26 08:08 (C14) | | 16:03 |
| 19 | 04:53 | 05:51 | 06:53 | 07:41 | | 16:01 |
| | 21:51 | 20:47 | 19:26 | 27 08:08 (C14) | | 16:01 |
| 20 | 04:54 | 05:53 | 06:55 | 07:40 | | 16:03 |
| | 21:49 | 20:45 | 19:23 | 29 08:09 (C14) | | 15:59 |
| 21 | 04:56 | 05:55 | 06:57 | 07:39 | | 16:05 |
| | 21:48 | 20:42 | 19:21 | 30 08:09 (C14) | | 15:58 |
| 22 | 04:58 | 05:57 | 06:59 | 07:39 | | 16:07 |
| | 21:46 | 20:40 | 19:18 | 30 08:09 (C14) | | 15:56 |
| 23 | 04:59 | 05:59 | 07:01 | 07:38 | | 16:09 |
| | 21:45 | 20:37 | 19:15 | 30 08:08 (C14) | | 15:55 |
| 24 | 05:01 | 06:01 | 07:03 | 07:38 | | 16:11 |
| | 21:43 | 20:35 | 19:12 | 30 08:08 (C14) | | 15:53 |
| 25 | 05:03 | 06:03 | 07:05 | 07:38 | | 16:13 |
| | 21:41 | 20:32 | 19:10 | 29 08:07 (C14) | | 15:52 |
| 26 | 05:05 | 06:05 | 07:07 | 07:38 | | 16:15 |
| | 21:39 | 20:30 | 19:07 | 28 08:06 (C14) | | 15:51 |
| 27 | 05:06 | 06:07 | 07:09 | 07:38 | | 16:17 |
| | 21:38 | 20:27 | 19:04 | 27 08:05 (C14) | | 15:50 |
| 28 | 05:08 | 06:09 | 07:11 | 07:40 | | 16:19 |
| | 21:36 | 20:24 | 19:02 | 24 08:04 (C14) | | 15:48 |
| 29 | 05:10 | 06:11 | 07:13 | 07:42 | | 16:21 |
| | 21:34 | 20:22 | 18:59 | 20 08:02 (C14) | | 15:47 |
| 30 | 05:12 | 06:13 | 07:15 | 07:44 | | 16:22 |
| | 21:32 | 20:19 | 18:56 | 16 08:00 (C14) | | 15:46 |
| 31 | 05:14 | 06:15 | | 07:20 | | 16:24 |
| | 21:30 | 20:17 | | 16:38 | | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 246 | 426 | 17 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.66 | 0.63 | 0.63 | | |
| Total reduction | | 0.32 | 0.26 | 0.16 | | |
| Total, real | | 79 | 113 | 3 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunleiš upi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (16)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunmedni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (174)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:51 | 08:09 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:03 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:37 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:43 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:26 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:06 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:38 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:53 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:11 | 05:00 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:11 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:10 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunmasani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (213)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:16 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Jaunrudzati - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (83)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------------|----------------|----------------|----------------|----------------------|----------------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 07:14 (C14) 20:55 | 05:33 21:53 | 04:36 22:09 | 04:30 21:28 | 05:16 20:14 | 07:06 (C14) 18:54 | 07:17 16:36 | 07:23 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 07:11 (C14) 20:58 | 05:30 21:54 | 04:35 22:09 | 04:31 21:26 | 05:18 20:11 | 07:04 (C14) 18:51 | 07:19 16:34 | 07:25 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 07:09 (C14) 21:00 | 05:28 21:55 | 04:34 22:08 | 04:32 21:24 | 05:20 20:09 | 07:02 (C14) 18:48 | 07:21 16:32 | 07:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 07:06 (C14) 21:02 | 05:26 21:57 | 04:33 22:07 | 04:33 21:22 | 05:22 20:06 | 07:01 (C14) 18:46 | 07:23 16:30 | 07:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 07:04 (C14) 21:04 | 05:24 21:58 | 04:32 22:07 | 04:34 21:20 | 05:24 20:04 | 07:01 (C14) 18:43 | 07:26 16:27 | 07:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 07:04 (C14) 21:06 | 05:21 21:59 | 04:31 22:06 | 04:35 21:17 | 05:26 20:01 | 07:00 (C14) 18:40 | 07:28 16:25 | 07:34 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 07:03 (C14) 21:08 | 05:19 22:00 | 04:30 22:05 | 05:27 21:15 | 06:29 19:58 | 07:00 (C14) 18:38 | 07:30 16:23 | 07:36 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 07:04 (C14) 21:10 | 05:17 22:01 | 04:29 22:04 | 05:29 21:13 | 06:31 19:56 | 07:00 (C14) 18:35 | 07:32 16:21 | 07:38 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 07:04 (C14) 21:12 | 05:15 22:02 | 04:29 22:03 | 05:31 21:11 | 06:33 19:53 | 07:02 (C14) 18:33 | 07:34 16:19 | 07:40 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 07:05 (C14) 21:14 | 05:13 22:03 | 04:28 22:02 | 05:33 21:08 | 06:35 19:50 | 07:04 (C14) 18:30 | 07:36 16:17 | 07:42 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 07:07 (C14) 21:16 | 05:11 22:04 | 04:28 22:01 | 05:35 21:06 | 06:37 19:48 | 07:06 (C14) 18:27 | 07:38 16:15 | 07:44 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 07:09 (C14) 21:18 | 05:09 22:05 | 04:27 22:00 | 05:37 21:04 | 06:39 19:45 | 07:08 (C14) 18:25 | 07:40 16:13 | 07:46 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 07:15 (C14) 21:20 | 05:07 22:06 | 04:27 21:59 | 05:39 21:02 | 06:41 19:42 | 07:15 (C14) 18:22 | 07:42 16:11 | 07:49 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 07:15 (C14) 21:22 | 05:05 22:07 | 04:26 21:58 | 05:41 20:59 | 06:43 19:39 | 07:12 (C14) 18:20 | 07:44 16:10 | 07:51 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 07:15 (C14) 21:24 | 05:03 22:07 | 04:26 21:57 | 05:43 20:57 | 06:45 19:37 | 07:15 (C14) 18:17 | 07:46 16:08 | 07:53 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 07:15 (C14) 21:26 | 05:01 22:08 | 04:26 21:55 | 05:45 20:54 | 06:47 19:34 | 07:15 (C14) 18:15 | 07:48 16:06 | 07:55 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 07:15 (C14) 21:27 | 04:59 22:08 | 04:26 21:54 | 05:47 20:52 | 06:49 19:31 | 07:15 (C14) 18:12 | 07:50 16:04 | 07:57 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 07:15 (C14) 21:29 | 04:57 22:09 | 04:25 21:52 | 05:49 20:50 | 06:51 19:29 | 07:15 (C14) 18:10 | 07:53 16:03 | 07:59 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 07:15 (C14) 21:31 | 04:55 22:09 | 04:25 21:51 | 05:51 20:47 | 06:53 19:26 | 07:15 (C14) 18:07 | 07:55 16:01 | 08:01 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 07:15 (C14) 21:33 | 04:54 22:10 | 04:25 21:49 | 05:53 20:45 | 06:55 19:23 | 07:15 (C14) 18:05 | 07:57 15:59 | 08:03 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 07:15 (C14) 21:35 | 04:52 22:10 | 04:26 21:48 | 05:55 20:42 | 06:57 19:21 | 07:15 (C14) 18:02 | 07:59 15:58 | 08:05 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 07:15 (C14) 21:37 | 04:50 22:10 | 04:26 21:46 | 05:57 20:40 | 06:59 19:18 | 07:15 (C14) 18:00 | 08:01 15:56 | 08:07 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 07:15 (C14) 21:39 | 04:49 22:10 | 04:26 21:45 | 05:59 20:37 | 07:01 19:15 | 07:15 (C14) 18:03 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 07:15 (C14) 21:40 | 04:47 22:10 | 04:26 21:43 | 06:01 20:35 | 07:03 19:13 | 07:15 (C14) 18:05 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 07:15 (C14) 21:42 | 04:45 22:10 | 04:27 21:41 | 06:03 20:32 | 07:05 19:10 | 07:15 (C14) 18:07 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 07:15 (C14) 21:43 | 04:44 22:10 | 04:27 21:39 | 06:05 20:30 | 07:07 19:07 | 07:15 (C14) 18:07 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 07:15 (C14) 21:45 | 04:42 22:10 | 04:28 21:38 | 06:07 20:27 | 07:09 19:04 | 07:15 (C14) 18:04 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 07:15 (C14) 21:47 | 04:41 22:10 | 04:28 21:36 | 06:09 20:24 | 07:11 19:02 | 07:15 (C14) 18:02 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:11 17:47 | 05:57 18:47 | 05:37 20:51 | 07:15 (C14) 21:48 | 04:40 22:10 | 04:29 21:34 | 06:11 20:22 | 07:13 18:59 | 07:15 (C14) 18:00 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | 07:04 17:54 | 05:54 18:54 | 05:35 20:53 | 07:15 (C14) 21:50 | 04:38 22:09 | 04:29 21:32 | 06:13 20:19 | 07:15 18:56 | 07:15 (C14) 18:00 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 07:02 17:51 | 05:52 18:51 | 05:33 20:51 | 07:15 (C14) 21:51 | 04:37 22:10 | 04:29 21:30 | 06:15 20:17 | 07:15 (C14) 18:56 | 07:15 (C14) 18:00 | 08:22 15:46 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | 0.41 | 0.50 | | | | 0.50 | 0.43 | | | |
| Oper. time red. | | | 0.98 | 0.98 | | | | 0.98 | 0.98 | | | |
| Wind dir. red. | | | 0.66 | 0.66 | | | | 0.66 | 0.66 | | | |
| Total reduction | | | 0.26 | 0.32 | | | | 0.32 | 0.28 | | | |
| Total, real | | | 2 | 62 | | | | 2 | 54 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalna Galvani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (35)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|----|------------|----------|----|------------|-------|----|------------|-------------|-------|-------------|-------|-------------|-------------|-------|--|--|
| 1 | 08:51 | | 09:30 (C4) | 08:15 | | | 07:11 | | 07:55 (C2) | 06:49 | | | 05:32 | | 06:30 (C17) | 04:36 | | |
| | 15:48 | 46 | 11:21 (C1) | 16:45 | | | 17:47 | 23 | 08:18 (C2) | 19:53 | | | 20:55 | 42 | 07:12 (C17) | 21:53 | | |
| 2 | 08:50 | | 09:30 (C4) | 08:13 | | | 07:08 | | 07:56 (C2) | 06:46 | | | 05:30 | | 06:30 (C17) | 04:34 | | |
| | 15:49 | 47 | 11:22 (C1) | 16:47 | | | 17:50 | 20 | 08:16 (C2) | 19:55 | | | 20:57 | 42 | 07:12 (C17) | 21:54 | | |
| 3 | 08:50 | | 09:29 (C4) | 08:11 | | | 07:06 | | 07:57 (C2) | 06:43 | | | 05:28 | | 06:30 (C17) | 04:33 | | |
| | 15:50 | 49 | 11:22 (C1) | 16:49 | | | 17:52 | 19 | 08:16 (C2) | 19:57 | | | 21:00 | 42 | 07:12 (C17) | 21:55 | | |
| 4 | 08:50 | | 09:28 (C4) | 08:09 | | | 07:03 | | 07:58 (C2) | 06:41 | | | 05:25 | | 06:31 (C17) | 04:32 | | |
| | 15:52 | 50 | 11:22 (C1) | 16:52 | | | 17:54 | 15 | 08:13 (C2) | 19:59 | | | 21:02 | 40 | 07:11 (C17) | 21:57 | | |
| 5 | 08:49 | | 09:28 (C4) | 08:07 | | | 07:00 | | 08:01 (C2) | 06:38 | | | 05:23 | | 06:31 (C17) | 04:31 | | |
| | 15:53 | 51 | 11:23 (C1) | 16:54 | | | 17:56 | 9 | 08:10 (C2) | 20:01 | | | 21:04 | 40 | 07:11 (C17) | 21:58 | | |
| 6 | 08:49 | | 09:27 (C4) | 08:05 | | | 06:58 | | | 06:35 | | | 05:21 | | 06:31 (C17) | 04:31 | | |
| | 15:55 | 53 | 11:23 (C1) | 16:56 | | | 17:58 | | | 20:03 | | | 21:06 | 39 | 07:10 (C17) | 21:59 | | |
| 7 | 08:48 | | 09:26 (C4) | 08:03 | | | 06:55 | | | 06:33 | | | 05:19 | | 06:32 (C17) | 04:30 | | |
| | 15:56 | 56 | 11:24 (C1) | 16:58 | | | 18:00 | | | 20:05 | | | 21:08 | 38 | 07:10 (C17) | 22:00 | | |
| 8 | 08:48 | | 09:25 (C4) | 08:00 | | | 06:53 | | | 06:30 | | | 05:17 | | 06:32 (C17) | 04:29 | | |
| | 15:58 | 57 | 11:24 (C1) | 17:01 | | | 18:03 | | | 20:07 | | | 21:10 | 37 | 07:09 (C17) | 22:01 | | |
| 9 | 08:47 | | 09:24 (C4) | 07:58 | | | 06:50 | | | 06:27 | | | 05:15 | | 06:33 (C17) | 04:28 | | |
| | 15:59 | 58 | 11:24 (C1) | 17:03 | | | 18:05 | | | 20:10 | | | 21:12 | 35 | 07:08 (C17) | 22:02 | | |
| 10 | 08:46 | | 09:23 (C4) | 07:56 | | | 06:47 | | | 06:25 | | | 05:12 | | 06:33 (C17) | 04:28 | | |
| | 16:01 | 60 | 11:25 (C1) | 17:05 | | | 18:07 | | | 20:12 | | | 21:14 | 34 | 07:07 (C17) | 22:03 | | |
| 11 | 08:45 | | 09:22 (C4) | 07:54 | | | 06:45 | | | 06:22 | | | 05:10 | | 06:34 (C17) | 04:27 | | |
| | 16:03 | 62 | 11:25 (C1) | 17:07 | | | 18:09 | | | 20:14 | | | 21:16 | 32 | 07:06 (C17) | 22:04 | | |
| 12 | 08:44 | | 09:21 (C4) | 07:52 | | | 06:42 | | | 06:20 | | | 05:08 | | 06:35 (C17) | 04:27 | | |
| | 16:04 | 64 | 11:26 (C1) | 17:10 | | | 18:11 | | | 20:16 | | | 21:18 | 30 | 07:05 (C17) | 22:05 | | |
| 13 | 08:43 | | 09:19 (C4) | 07:49 | | | 06:39 | | | 06:17 | | | 05:06 | | 06:36 (C17) | 04:26 | | |
| | 16:06 | 65 | 11:25 (C1) | 17:12 | | | 18:13 | | | 20:18 | | | 21:20 | 27 | 07:03 (C17) | 22:06 | | |
| 14 | 08:42 | | 09:19 (C4) | 07:47 | | | 06:37 | | | 06:14 | | 06:52 (C17) | 05:04 | | 06:38 (C17) | 04:26 | | |
| | 16:08 | 66 | 11:26 (C1) | 17:14 | | | 18:15 | | 5 | 06:57 (C17) | 21:22 | | 25 | 07:03 (C17) | 22:07 | | | |
| 15 | 08:41 | | 09:20 (C4) | 07:45 | | | 06:34 | | | 06:12 | | | 05:02 | | 06:39 (C17) | 04:25 | | |
| | 16:10 | 65 | 11:26 (C1) | 17:16 | | | 18:17 | | 16 | 07:03 (C17) | 21:24 | | 22 | 07:01 (C17) | 22:07 | | | |
| 16 | 08:40 | | 09:20 (C4) | 07:43 | | | 06:31 | | | 06:09 | | 06:43 (C17) | 05:00 | | 06:41 (C17) | 04:25 | | |
| | 16:12 | 65 | 11:26 (C1) | 17:19 | | | 18:20 | | 22 | 07:05 (C17) | 21:25 | | 18 | 06:59 (C17) | 22:08 | | | |
| 17 | 08:39 | | 09:20 (C4) | 07:40 | | 08:08 (C2) | 06:29 | | | 06:07 | | 06:41 (C17) | 04:59 | | 06:43 (C17) | 04:25 | | |
| | 16:14 | 65 | 11:26 (C1) | 17:21 | 4 | 08:12 (C2) | 18:22 | | | 20:26 | 26 | 07:07 (C17) | 21:27 | 13 | 06:56 (C17) | 22:09 | | |
| 18 | 08:37 | | 09:20 (C4) | 07:38 | | 08:05 (C2) | 06:26 | | | 06:04 | | 06:39 (C17) | 04:57 | | 06:47 (C17) | 04:25 | | |
| | 16:15 | 65 | 11:26 (C1) | 17:23 | 9 | 08:14 (C2) | 18:24 | | | 20:28 | 29 | 07:08 (C17) | 21:29 | 5 | 06:52 (C17) | 22:09 | | |
| 19 | 08:36 | | 09:20 (C4) | 07:35 | | 08:03 (C2) | 06:23 | | | 06:02 | | 06:38 (C17) | 04:55 | | | 04:25 | | |
| | 16:17 | 63 | 11:25 (C1) | 17:25 | 14 | 08:17 (C2) | 18:26 | | | 20:30 | 32 | 07:10 (C17) | 21:31 | | | 22:09 | | |
| 20 | 08:35 | | 09:21 (C4) | 07:33 | | 08:00 (C2) | 06:21 | | | 05:59 | | 06:36 (C17) | 04:53 | | | 04:25 | | |
| | 16:19 | 62 | 11:26 (C1) | 17:28 | 17 | 08:17 (C2) | 18:28 | | | 20:32 | 34 | 07:10 (C17) | 21:33 | | | 22:10 | | |
| 21 | 08:33 | | 09:22 (C4) | 07:31 | | 07:58 (C2) | 06:18 | | | 05:57 | | 06:35 (C17) | 04:51 | | | 04:25 | | |
| | 16:21 | 59 | 11:25 (C1) | 17:30 | 21 | 08:19 (C2) | 18:30 | | | 20:35 | 36 | 07:11 (C17) | 21:35 | | | 22:10 | | |
| 22 | 08:32 | | 09:22 (C4) | 07:28 | | 07:55 (C2) | 06:15 | | | 05:54 | | 06:34 (C17) | 04:50 | | | 04:25 | | |
| | 16:24 | 57 | 11:24 (C1) | 17:32 | 24 | 08:19 (C2) | 18:32 | | | 20:37 | 38 | 07:12 (C17) | 21:37 | | | 22:10 | | |
| 23 | 08:30 | | 09:23 (C4) | 07:26 | | 07:55 (C2) | 06:13 | | | 05:52 | | 06:33 (C17) | 04:48 | | | 04:25 | | |
| | 16:26 | 56 | 11:24 (C1) | 17:34 | 25 | 08:20 (C2) | 18:34 | | | 20:39 | 39 | 07:12 (C17) | 21:38 | | | 22:10 | | |
| 24 | 08:29 | | 09:24 (C4) | 07:23 | | 07:55 (C2) | 06:10 | | | 05:49 | | 06:32 (C17) | 04:47 | | | 04:26 | | |
| | 16:28 | 53 | 11:24 (C1) | 17:36 | 25 | 08:20 (C2) | 18:36 | | | 20:41 | 41 | 07:13 (C17) | 21:40 | | | 22:10 | | |
| 25 | 08:27 | | 09:25 (C4) | 07:21 | | 07:54 (C2) | 06:07 | | | 05:47 | | 06:32 (C17) | 04:45 | | | 04:26 | | |
| | 16:30 | 49 | 11:23 (C1) | 17:39 | 25 | 08:19 (C2) | 18:38 | | | 20:43 | 41 | 07:13 (C17) | 21:42 | | | 22:10 | | |
| 26 | 08:26 | | 09:26 (C4) | 07:18 | | 07:54 (C2) | 06:05 | | | 05:44 | | 06:31 (C17) | 04:44 | | | 04:27 | | |
| | 16:32 | 45 | 11:22 (C1) | 17:41 | 26 | 08:20 (C2) | 18:40 | | | 20:45 | 42 | 07:13 (C17) | 21:43 | | | 22:10 | | |
| 27 | 08:24 | | 09:27 (C4) | 07:16 | | 07:54 (C2) | 06:02 | | | 05:42 | | 06:31 (C17) | 04:42 | | | 04:27 | | |
| | 16:34 | 39 | 11:20 (C1) | 17:43 | 25 | 08:19 (C2) | 18:43 | | | 20:47 | 42 | 07:13 (C17) | 21:45 | | | 22:10 | | |
| 28 | 08:22 | | 09:29 (C4) | 07:13 | | 07:55 (C2) | 05:59 | | | 05:39 | | 06:31 (C17) | 04:41 | | | 04:28 | | |
| | 16:36 | 33 | 11:19 (C1) | 17:45 | 24 | 08:19 (C2) | 18:45 | | | 20:49 | 42 | 07:13 (C17) | 21:47 | | | 22:10 | | |
| 29 | 08:20 | | 09:32 (C4) | | | | 06:57 | | | 05:37 | | 06:30 (C17) | 04:39 | | | 04:28 | | |
| | 16:38 | 21 | 11:16 (C1) | | | | 19:47 | | | 20:51 | 42 | 07:12 (C17) | 21:48 | | | 22:10 | | |
| 30 | 08:18 | | 11:06 (C1) | | | | 06:54 | | | 05:35 | | 06:30 (C17) | 04:38 | | | 04:29 | | |
| | 16:41 | 5 | 11:11 (C1) | | | | 19:49 | | | 20:53 | 42 | 07:12 (C17) | 21:50 | | | 22:09 | | |
| 31 | 08:17 | | | | | | 06:51 | | | | | | 04:37 | | | | | |
| | 16:43 | | | | | | 19:51 | | | | | | 21:51 | | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | | 426 | | | 508 | | | 529 | | |
| Total, worst case | 1586 | | | 239 | | | 86 | | | 569 | | | 561 | | | | | |
| Sun reduction | 0.13 | | | 0.20 | | | 0.41 | | | 0.50 | | | 0.57 | | | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | | | | |
| Wind dir. red. | 0.60 | | | 0.63 | | | 0.63 | | | 0.65 | | | 0.65 | | | | | |
| Total reduction | 0.08 | | | 0.12 | | | 0.24 | | | 0.31 | | | 0.35 | | | | | |
| Total, real | 121 | | | 29 | | | 21 | | | 177 | | | 198 | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalna Galvani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (35)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|----------------|----------------|----------------|-------|---------|------------|---------------|-------|---------------|--|
| 1 | 04:30 | 05:15 | 06:45 (C17) | 06:17 | 07:17 | 07:23 | 08:24 | 09:04 (C4) | | | |
| | 22:09 | 21:28 | 30 07:15 (C17) | 20:14 | 18:53 | 16:36 | 15:45 | 62 11:07 (C1) | | | |
| 2 | 04:31 | 05:17 | 06:44 (C17) | 06:19 | 07:19 | 07:25 | 08:26 | 09:06 (C4) | | | |
| | 22:09 | 21:26 | 33 07:17 (C17) | 20:11 | 18:51 | 16:34 | 15:44 | 60 11:08 (C1) | | | |
| 3 | 04:31 | 05:19 | 06:44 (C17) | 06:21 | 07:21 | 07:27 | 08:28 | 09:08 (C4) | | | |
| | 22:08 | 21:24 | 34 07:18 (C17) | 20:09 | 18:48 | 16:31 | 15:43 | 59 11:08 (C1) | | | |
| 4 | 04:32 | 05:21 | 06:43 (C17) | 06:23 | 07:23 | 07:29 | 08:29 | 09:09 (C4) | | | |
| | 22:07 | 21:22 | 36 07:19 (C17) | 20:06 | 18:46 | 16:29 | 15:42 | 57 11:08 (C1) | | | |
| 5 | 04:33 | 05:23 | 06:41 (C17) | 06:25 | 07:25 | 07:31 | 08:31 | 09:11 (C4) | | | |
| | 22:07 | 21:19 | 37 07:18 (C17) | 20:03 | 18:43 | 16:27 | 15:41 | 56 11:09 (C1) | | | |
| 6 | 04:34 | 05:25 | 06:41 (C17) | 06:27 | 07:27 | 07:33 | 08:32 | 09:13 (C4) | | | |
| | 22:06 | 21:17 | 38 07:19 (C17) | 20:01 | 18:40 | 16:25 | 15:41 | 53 11:09 (C1) | | | |
| 7 | 04:36 | 05:27 | 06:41 (C17) | 06:29 | 07:29 | 07:36 | 08:34 | 09:14 (C4) | | | |
| | 22:05 | 21:15 | 39 07:20 (C17) | 19:58 | 18:38 | 16:23 | 15:40 | 51 11:09 (C1) | | | |
| 8 | 04:37 | 05:29 | 06:40 (C17) | 06:31 | 07:31 | 07:38 | 08:35 | 09:16 (C4) | | | |
| | 22:04 | 21:13 | 40 07:20 (C17) | 19:55 | 18:35 | 16:21 | 15:40 | 51 11:10 (C1) | | | |
| 9 | 04:38 | 05:31 | 06:40 (C17) | 06:33 | 07:34 | 07:40 | 08:37 | 09:18 (C4) | | | |
| | 22:03 | 21:11 | 41 07:21 (C17) | 19:53 | 18:32 | 16:19 | 15:39 | 49 11:11 (C1) | | | |
| 10 | 04:39 | 05:33 | 06:39 (C17) | 06:35 | 07:36 | 07:42 | 08:38 | 09:19 (C4) | | | |
| | 22:02 | 21:08 | 41 07:20 (C17) | 19:50 | 18:30 | 16:17 | 15:39 | 47 11:11 (C1) | | | |
| 11 | 04:40 | 05:35 | 06:38 (C17) | 06:37 | 07:38 | 07:44 | 08:39 | 09:20 (C4) | | | |
| | 22:01 | 21:06 | 42 07:20 (C17) | 19:47 | 18:27 | 16:15 | 15:38 | 46 11:11 (C1) | | | |
| 12 | 04:42 | 05:37 | 06:38 (C17) | 06:39 | 07:40 | 07:46 | 08:40 | 09:21 (C4) | | | |
| | 22:00 | 21:04 | 43 07:21 (C17) | 19:45 | 18:25 | 16:13 | 15:38 | 44 11:12 (C1) | | | |
| 13 | 04:43 | 05:39 | 06:38 (C17) | 06:41 | 07:42 | 07:49 | 08:42 | 09:22 (C4) | | | |
| | 21:59 | 21:01 | 43 07:21 (C17) | 19:42 | 18:22 | 16:11 | 15:38 | 44 11:12 (C1) | | | |
| 14 | 04:45 | 05:41 | 06:38 (C17) | 06:43 | 07:44 | 07:51 | 08:43 | 09:23 (C4) | | | |
| | 21:58 | 20:59 | 43 07:21 (C17) | 19:39 | 18:19 | 16:09 | 15:38 | 45 11:13 (C1) | | | |
| 15 | 04:46 | 05:43 | 06:38 (C17) | 06:45 | 07:46 | 07:53 | 08:44 | 09:24 (C4) | | | |
| | 21:57 | 20:57 | 43 07:21 (C17) | 19:37 | 18:17 | 16:07 | 15:38 | 44 11:13 (C1) | | | |
| 16 | 04:48 | 05:45 | 06:38 (C17) | 06:47 | 07:48 | 07:55 | 08:45 | 09:25 (C4) | | | |
| | 21:55 | 20:54 | 42 07:20 (C17) | 19:34 | 18:14 | 16:06 | 15:38 | 44 11:13 (C1) | | | |
| 17 | 04:49 | 05:47 | 06:38 (C17) | 06:49 | 07:50 | 07:57 | 08:46 | 09:26 (C4) | | | |
| | 21:54 | 20:52 | 41 07:19 (C17) | 19:31 | 18:12 | 16:04 | 15:38 | 44 11:14 (C1) | | | |
| 18 | 04:51 | 05:49 | 06:38 (C17) | 06:51 | 07:52 | 07:59 | 08:46 | 09:27 (C4) | | | |
| | 21:52 | 20:49 | 41 07:19 (C17) | 19:28 | 18:09 | 16:02 | 15:38 | 45 11:15 (C1) | | | |
| 19 | 04:52 | 05:51 | 06:38 (C17) | 06:53 | 07:54 | 08:01 | 08:47 | 09:28 (C4) | | | |
| | 21:51 | 20:47 | 40 07:18 (C17) | 19:26 | 18:07 | 16:01 | 15:38 | 44 11:15 (C1) | | | |
| 20 | 04:54 | 05:53 | 06:39 (C17) | 06:55 | 07:57 | 08:03 | 08:48 | 09:29 (C4) | | | |
| | 21:49 | 20:45 | 38 07:17 (C17) | 19:23 | 18:04 | 15:59 | 15:38 | 44 11:15 (C1) | | | |
| 21 | 04:56 | 05:55 | 06:39 (C17) | 06:57 | 07:59 | 08:05 | 08:49 | 09:30 (C4) | | | |
| | 21:48 | 20:42 | 38 07:17 (C17) | 19:20 | 18:02 | 15:57 | 15:39 | 44 11:16 (C1) | | | |
| 22 | 04:57 | 05:57 | 06:40 (C17) | 06:59 | 08:01 | 08:07 | 08:58 (C4) | 09:31 (C1) | | | |
| | 21:46 | 20:40 | 36 07:16 (C17) | 19:18 | 17:59 | 15:56 | 15:39 | 44 11:16 (C1) | | | |
| 23 | 04:59 | 05:59 | 06:41 (C17) | 07:01 | 08:03 | 08:09 | 08:57 (C4) | 09:32 (C1) | | | |
| | 21:45 | 20:37 | 34 07:15 (C17) | 19:15 | 17:57 | 15:54 | 15:40 | 44 11:17 (C1) | | | |
| 24 | 05:01 | 06:01 | 06:42 (C17) | 07:03 | 08:05 | 08:11 | 08:57 (C4) | 09:33 (C1) | | | |
| | 21:43 | 20:35 | 31 07:13 (C17) | 19:12 | 17:54 | 15:53 | 15:40 | 44 11:17 (C1) | | | |
| 25 | 05:02 | 06:03 | 06:42 (C17) | 07:05 | 07:07 | 08:13 | 08:58 (C4) | 09:34 (C1) | | | |
| | 21:41 | 20:32 | 29 07:11 (C17) | 19:10 | 16:52 | 15:52 | 15:41 | 44 11:17 (C1) | | | |
| 26 | 05:04 | 06:05 | 06:43 (C17) | 07:07 | 07:09 | 08:15 | 08:59 (C4) | 09:35 (C1) | | | |
| | 21:39 | 10 07:05 (C17) | 20:29 | 26 07:09 (C17) | 19:07 | 16:50 | 15:50 | 65 11:05 (C1) | 15:42 | 45 11:18 (C1) | |
| 27 | 05:06 | 06:53 (C17) | 06:07 | 06:45 (C17) | 07:09 | 07:12 | 08:17 | 08:59 (C4) | 08:51 | 10:34 (C1) | |
| | 21:38 | 15 07:08 (C17) | 20:27 | 22 07:07 (C17) | 19:04 | 16:47 | 15:49 | 65 11:05 (C1) | 15:43 | 44 11:18 (C1) | |
| 28 | 05:08 | 06:50 (C17) | 06:09 | 06:48 (C17) | 07:11 | 07:14 | 08:19 | 08:59 (C4) | 08:51 | 10:34 (C1) | |
| | 21:36 | 20 07:10 (C17) | 20:24 | 16 07:04 (C17) | 19:02 | 16:45 | 15:48 | 66 11:06 (C1) | 15:43 | 45 11:19 (C1) | |
| 29 | 05:10 | 06:49 (C17) | 06:11 | 06:54 (C17) | 07:13 | 07:16 | 08:21 | 09:00 (C4) | 08:51 | 10:35 (C1) | |
| | 21:34 | 23 07:12 (C17) | 20:22 | 3 06:57 (C17) | 18:59 | 16:43 | 15:47 | 65 11:06 (C1) | 15:44 | 44 11:19 (C1) | |
| 30 | 05:12 | 06:48 (C17) | 06:13 | | 07:15 | 07:18 | 08:22 | 09:02 (C4) | 08:51 | 10:36 (C1) | |
| | 21:32 | 25 07:13 (C17) | 20:19 | | 18:56 | 16:40 | 15:46 | 64 11:07 (C1) | 15:45 | 44 11:20 (C1) | |
| 31 | 05:14 | 06:46 (C17) | 06:15 | | | 07:20 | | | 08:51 | 10:36 (C1) | |
| | 21:30 | 28 07:14 (C17) | 20:17 | | | 16:38 | | | 15:46 | 45 11:21 (C1) | |
| Potential sun hours | 529 | | 469 | | 385 | 324 | | 247 | | 216 | |
| Total, worst case | 121 | | 1020 | | | 323 | | 996 | | 1476 | |
| Sun reduction | 0.49 | | 0.50 | | | 0.26 | | 0.08 | | 0.07 | |
| Oper. time red. | 0.98 | | 0.98 | | | 0.98 | | 0.98 | | 0.98 | |
| Wind dir. red. | 0.65 | | 0.65 | | | 0.63 | | 0.60 | | 0.60 | |
| Total reduction | 0.31 | | 0.31 | | | 0.15 | | 0.05 | | 0.04 | |
| Total, real | 37 | | 316 | | | 50 | | 47 | | 60 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalnmuiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (28)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | | January | February | March | April | May | June | | July | | August | September | October | November | December |
|---------------------|-------|---------|----------|-------|-------|-------|-------------|-------------|-------|-------------|--------|-----------|---------|----------|----------|
| 1 | 08:50 | 08:14 | 07:11 | 06:49 | 05:32 | 04:36 | | 04:30 | 10 | 05:07 (C12) | 05:16 | 06:17 | 07:17 | 07:22 | 08:24 |
| | 15:48 | 16:45 | 17:47 | 19:53 | 20:55 | 21:52 | | 22:09 | | 21:28 (C15) | 21:28 | 20:14 | 18:53 | 16:36 | 15:45 |
| 2 | 08:50 | 08:13 | 07:08 | 06:46 | 05:30 | 04:35 | | 04:31 | | 05:08 (C12) | 05:18 | 06:19 | 07:19 | 07:24 | 08:26 |
| | 15:49 | 16:47 | 17:50 | 19:55 | 20:57 | 21:54 | | 22:08 | 8 | 05:16 (C12) | 21:26 | 20:11 | 18:51 | 16:34 | 15:44 |
| 3 | 08:50 | 08:11 | 07:05 | 06:43 | 05:28 | 04:34 | | 04:32 | | 05:09 (C12) | 05:19 | 06:21 | 07:21 | 07:27 | 08:27 |
| | 15:51 | 16:50 | 17:52 | 19:57 | 20:59 | 21:55 | | 22:08 | 7 | 05:16 (C12) | 21:23 | 20:09 | 18:48 | 16:32 | 15:43 |
| 4 | 08:49 | 08:09 | 07:03 | 06:41 | 05:26 | 04:33 | | 04:33 | | 05:10 (C12) | 05:21 | 06:23 | 07:23 | 07:29 | 08:29 |
| | 15:52 | 16:52 | 17:54 | 19:59 | 21:01 | 21:56 | | 22:07 | 5 | 05:15 (C12) | 21:21 | 20:06 | 18:45 | 16:29 | 15:42 |
| 5 | 08:49 | 08:07 | 07:00 | 06:38 | 05:23 | 04:32 | | 04:34 | | 05:11 (C12) | 05:23 | 06:25 | 07:25 | 07:31 | 08:30 |
| | 15:53 | 16:54 | 17:56 | 20:01 | 21:03 | 21:57 | | 22:06 | 4 | 05:15 (C12) | 21:19 | 20:03 | 18:43 | 16:27 | 15:42 |
| 6 | 08:48 | 08:04 | 06:58 | 06:35 | 05:21 | 04:31 | 05:06 (C12) | 04:35 | | 05:12 (C12) | 05:25 | 06:27 | 07:27 | 07:33 | 08:32 |
| | 15:55 | 16:56 | 17:58 | 20:03 | 21:05 | 21:59 | 1 | 05:07 (C12) | 2 | 05:14 (C12) | 21:17 | 20:01 | 18:40 | 16:25 | 15:41 |
| 7 | 08:48 | 08:02 | 06:55 | 06:33 | 05:19 | 04:30 | | 05:05 (C12) | 04:36 | | 05:27 | 06:29 | 07:29 | 07:35 | 08:33 |
| | 15:56 | 16:59 | 18:00 | 20:05 | 21:07 | 22:00 | 3 | 05:08 (C12) | 22:05 | | 21:15 | 19:58 | 18:38 | 16:23 | 15:40 |
| 8 | 08:47 | 08:00 | 06:53 | 06:30 | 05:17 | 04:29 | | 05:05 (C12) | 04:37 | | 05:29 | 06:31 | 07:31 | 07:38 | 08:35 |
| | 15:58 | 17:01 | 18:03 | 20:07 | 21:09 | 22:01 | 5 | 05:10 (C12) | 22:04 | | 21:13 | 19:55 | 18:35 | 16:21 | 15:40 |
| 9 | 08:46 | 07:58 | 06:50 | 06:27 | 05:15 | 04:29 | | 05:04 (C12) | 04:38 | | 05:31 | 06:33 | 07:33 | 07:40 | 08:36 |
| | 15:59 | 17:03 | 18:05 | 20:09 | 21:11 | 22:02 | 6 | 05:10 (C12) | 22:03 | | 21:10 | 19:53 | 18:32 | 16:19 | 15:39 |
| 10 | 08:46 | 07:56 | 06:47 | 06:25 | 05:13 | 04:28 | | 05:04 (C12) | 04:39 | | 05:33 | 06:35 | 07:36 | 07:42 | 08:38 |
| | 16:01 | 17:05 | 18:07 | 20:12 | 21:13 | 22:03 | 7 | 05:11 (C12) | 22:02 | | 21:08 | 19:50 | 18:30 | 16:17 | 15:39 |
| 11 | 08:45 | 07:54 | 06:45 | 06:22 | 05:11 | 04:27 | | 05:03 (C12) | 04:41 | | 05:35 | 06:37 | 07:38 | 07:44 | 08:39 |
| | 16:03 | 17:08 | 18:09 | 20:14 | 21:15 | 22:04 | 9 | 21:24 (C15) | 22:01 | | 21:06 | 19:47 | 18:27 | 16:15 | 15:39 |
| 12 | 08:44 | 07:52 | 06:42 | 06:20 | 05:08 | 04:27 | | 05:03 (C12) | 04:42 | | 05:37 | 06:39 | 07:40 | 07:46 | 08:40 |
| | 16:05 | 17:10 | 18:11 | 20:16 | 21:17 | 22:05 | 11 | 21:25 (C15) | 22:00 | | 21:04 | 19:45 | 18:25 | 16:13 | 15:38 |
| 13 | 08:43 | 07:49 | 06:39 | 06:17 | 05:06 | 04:26 | | 05:03 (C12) | 04:43 | | 05:39 | 06:41 | 07:42 | 07:48 | 08:41 |
| | 16:06 | 17:12 | 18:13 | 20:18 | 21:19 | 22:06 | 13 | 21:26 (C15) | 21:59 | | 21:01 | 19:42 | 18:22 | 16:11 | 15:38 |
| 14 | 08:42 | 07:47 | 06:37 | 06:14 | 05:04 | 04:26 | | 05:03 (C12) | 04:45 | | 05:41 | 06:43 | 07:44 | 07:50 | 08:42 |
| | 16:08 | 17:14 | 18:15 | 20:20 | 21:21 | 22:06 | 15 | 21:27 (C15) | 21:58 | | 20:59 | 19:39 | 18:19 | 16:09 | 15:38 |
| 15 | 08:41 | 07:45 | 06:34 | 06:12 | 05:03 | 04:26 | | 05:02 (C12) | 04:46 | | 05:43 | 06:45 | 07:46 | 07:53 | 08:43 |
| | 16:10 | 17:17 | 18:17 | 20:22 | 21:23 | 22:07 | 15 | 21:26 (C15) | 21:56 | | 20:57 | 19:37 | 18:17 | 16:08 | 15:38 |
| 16 | 08:40 | 07:42 | 06:31 | 06:09 | 05:01 | 04:26 | | 05:02 (C12) | 04:48 | | 05:45 | 06:47 | 07:48 | 07:55 | 08:44 |
| | 16:12 | 17:19 | 18:19 | 20:24 | 21:25 | 22:08 | 17 | 21:27 (C15) | 21:55 | | 20:54 | 19:34 | 18:14 | 16:06 | 15:38 |
| 17 | 08:38 | 07:40 | 06:29 | 06:07 | 04:59 | 04:25 | | 05:02 (C12) | 04:49 | | 05:47 | 06:49 | 07:50 | 07:57 | 08:45 |
| | 16:14 | 17:21 | 18:22 | 20:26 | 21:27 | 22:08 | 18 | 21:28 (C15) | 21:54 | | 20:52 | 19:31 | 18:12 | 16:04 | 15:38 |
| 18 | 08:37 | 07:38 | 06:26 | 06:04 | 04:57 | 04:25 | | 05:02 (C12) | 04:51 | | 05:49 | 06:51 | 07:52 | 07:59 | 08:46 |
| | 16:16 | 17:23 | 18:24 | 20:28 | 21:29 | 22:09 | 19 | 21:28 (C15) | 21:52 | | 20:49 | 19:28 | 18:09 | 16:02 | 15:38 |
| 19 | 08:36 | 07:35 | 06:23 | 06:02 | 04:55 | 04:25 | | 05:02 (C12) | 04:53 | | 05:51 | 06:53 | 07:54 | 08:01 | 08:47 |
| | 16:18 | 17:25 | 18:26 | 20:30 | 21:31 | 22:09 | 19 | 21:28 (C15) | 21:51 | | 20:47 | 19:26 | 18:07 | 16:01 | 15:38 |
| 20 | 08:34 | 07:33 | 06:21 | 05:59 | 04:53 | 04:25 | | 05:02 (C12) | 04:54 | | 05:53 | 06:55 | 07:56 | 08:03 | 08:48 |
| | 16:20 | 17:28 | 18:28 | 20:32 | 21:33 | 22:09 | 20 | 21:29 (C15) | 21:49 | | 20:44 | 19:23 | 18:04 | 15:59 | 15:39 |
| 21 | 08:33 | 07:30 | 06:18 | 05:57 | 04:52 | 04:25 | | 05:03 (C12) | 04:56 | | 05:55 | 06:57 | 07:59 | 08:05 | 08:48 |
| | 16:22 | 17:30 | 18:30 | 20:34 | 21:34 | 22:10 | 20 | 21:30 (C15) | 21:48 | | 20:42 | 19:20 | 18:02 | 15:58 | 15:39 |
| 22 | 08:32 | 07:28 | 06:15 | 05:54 | 04:50 | 04:26 | | 05:03 (C12) | 04:57 | | 05:57 | 06:59 | 08:01 | 08:07 | 08:49 |
| | 16:24 | 17:32 | 18:32 | 20:36 | 21:36 | 22:10 | 20 | 21:30 (C15) | 21:46 | | 20:39 | 19:18 | 17:59 | 15:56 | 15:39 |
| 23 | 08:30 | 07:26 | 06:13 | 05:52 | 04:48 | 04:26 | | 05:03 (C12) | 04:59 | | 05:59 | 07:01 | 08:03 | 08:09 | 08:49 |
| | 16:26 | 17:34 | 18:34 | 20:39 | 21:38 | 22:10 | 19 | 21:29 (C15) | 21:44 | | 20:37 | 19:15 | 17:57 | 15:55 | 15:40 |
| 24 | 08:29 | 07:23 | 06:10 | 05:49 | 04:47 | 04:26 | | 05:04 (C12) | 05:01 | | 06:01 | 07:03 | 08:05 | 08:11 | 08:50 |
| | 16:28 | 17:36 | 18:36 | 20:41 | 21:40 | 22:10 | 19 | 21:30 (C15) | 21:43 | | 20:34 | 19:12 | 17:55 | 15:53 | 15:41 |
| 25 | 08:27 | 07:21 | 06:07 | 05:47 | 04:45 | 04:26 | | 05:04 (C12) | 05:03 | | 06:03 | 07:05 | 07:07 | 08:13 | 08:50 |
| | 16:30 | 17:39 | 18:38 | 20:43 | 21:41 | 22:10 | 18 | 21:30 (C15) | 21:41 | | 20:32 | 19:10 | 16:52 | 15:52 | 15:41 |
| 26 | 08:25 | 07:18 | 06:05 | 05:44 | 04:44 | 04:27 | | 05:04 (C12) | 05:05 | | 06:05 | 07:07 | 07:09 | 08:15 | 08:50 |
| | 16:32 | 17:41 | 18:40 | 20:45 | 21:43 | 22:10 | 17 | 21:29 (C15) | 21:39 | | 20:29 | 19:07 | 16:50 | 15:51 | 15:42 |
| 27 | 08:24 | 07:16 | 06:02 | 05:42 | 04:42 | 04:27 | | 05:05 (C12) | 05:06 | | 06:07 | 07:09 | 07:11 | 08:17 | 08:50 |
| | 16:34 | 17:43 | 18:42 | 20:47 | 21:45 | 22:10 | 17 | 21:30 (C15) | 21:37 | | 20:27 | 19:04 | 16:47 | 15:49 | 15:43 |
| 28 | 08:22 | 07:13 | 05:59 | 05:40 | 04:41 | 04:28 | | 05:05 (C12) | 05:08 | | 06:09 | 07:11 | 07:14 | 08:19 | 08:51 |
| | 16:36 | 17:45 | 18:45 | 20:49 | 21:46 | 22:10 | 15 | 21:29 (C15) | 21:35 | | 20:24 | 19:01 | 16:45 | 15:48 | 15:44 |
| 29 | 08:20 | | 06:57 | 05:37 | 04:40 | 04:29 | | 05:06 (C12) | 05:10 | | 06:11 | 07:13 | 07:16 | 08:20 | 08:51 |
| | 16:39 | | 19:47 | 20:51 | 21:48 | 22:09 | 13 | 21:29 (C15) | 21:33 | | 20:22 | 18:59 | 16:43 | 15:47 | 15:45 |
| 30 | 08:18 | | 06:54 | 05:35 | 04:38 | 04:29 | | 05:07 (C12) | 05:12 | | 06:13 | 07:15 | 07:18 | 08:22 | 08:51 |
| | 16:41 | | 19:49 | 20:53 | 21:49 | 22:09 | 12 | 21:29 (C15) | | | 20:19 | 18:56 | 16:40 | 15:46 | |
| 31 | 08:16 | | 06:51 | | 04:37 | | | 05:14 | | | 06:15 | | 07:20 | | 08:51 |
| | 16:43 | | 19:51 | | 21:51 | | | 21:30 | | | 20:16 | | 16:38 | | 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | | 529 | | | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | 348 | | 36 | | | | | | |
| Sun reduction | | | | | | | 0.56 | | 0.49 | | | | | | |
| Oper. time red. | | | | | | | 0.98 | | 0.98 | | | | | | |
| Wind dir. red. | | | | | | | 0.65 | | 0.66 | | | | | | |
| Total reduction | | | | | | | 0.35 | | 0.32 | | | | | | |
| Total, real | | | | | | | 123 | | 11 | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalnsetas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (8)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:08 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalnvidi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (48)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalnares - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (43)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|---------------------|---------------------|----------------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 08:15 (C1) 19:53 | 05:32 20:55 | 04:36 21:53 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 08:17 (C1) 19:55 | 05:30 20:58 | 04:35 21:54 |
| 3 | 08:50 15:50 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:33 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:32 21:57 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:31 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:15 21:12 | 04:28 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:28 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 |
| 12 | 08:44 16:04 | 07:52 17:10 | 08:20 (C1) 18:11 | 06:20 20:16 | 06:45 (C17) 21:18 | 05:08 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 08:18 (C1) 18:13 | 06:17 20:18 | 06:43 (C17) 21:20 | 05:06 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 08:15 (C1) 18:15 | 06:14 20:20 | 06:40 (C17) 21:22 | 05:04 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 08:13 (C1) 18:17 | 06:12 20:22 | 06:38 (C17) 21:24 | 05:02 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 08:12 (C1) 18:20 | 06:09 20:24 | 06:35 (C17) 21:26 | 05:00 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 08:11 (C1) 18:22 | 06:07 20:26 | 06:33 (C17) 21:27 | 04:59 22:09 |
| 18 | 08:38 16:16 | 07:38 17:23 | 08:10 (C1) 18:24 | 06:04 20:28 | 06:31 (C17) 21:29 | 04:57 22:09 |
| 19 | 08:36 16:18 | 07:35 17:25 | 08:10 (C1) 18:26 | 06:02 20:30 | 06:31 (C17) 21:31 | 04:55 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 08:10 (C1) 18:28 | 05:59 20:33 | 06:31 (C17) 21:33 | 04:53 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 08:10 (C1) 18:30 | 05:57 20:35 | 06:31 (C17) 21:35 | 04:52 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 08:09 (C1) 18:32 | 05:54 20:37 | 06:32 (C17) 21:37 | 04:50 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 08:10 (C1) 18:34 | 05:52 20:39 | 06:32 (C17) 21:38 | 04:48 22:10 |
| 24 | 08:29 16:28 | 07:23 17:37 | 08:10 (C1) 18:36 | 05:49 20:41 | 06:33 (C17) 21:40 | 04:47 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 08:10 (C1) 18:38 | 05:47 20:43 | 06:35 (C17) 21:42 | 04:45 22:10 |
| 26 | 08:26 16:32 | 07:18 17:41 | 08:11 (C1) 18:40 | 05:44 20:45 | 06:37 (C17) 21:44 | 04:44 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 08:12 (C1) 18:43 | 05:42 20:47 | 06:43 (C17) 21:46 | 04:42 22:10 |
| 28 | 08:22 16:36 | 07:13 17:45 | 08:13 (C1) 18:45 | 05:39 20:49 | 06:41 (C17) 21:48 | 04:41 22:10 |
| 29 | 08:20 16:39 | | 08:34 (C1) 18:47 | 05:37 20:51 | 06:39 (C17) 21:50 | 04:39 22:10 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 06:37 (C17) 21:52 | 04:38 22:10 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 06:35 (C17) 21:54 | 04:37 22:10 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 414 | 27 | 232 | | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.62 | 0.62 | 0.65 | | |
| Total reduction | | 0.12 | 0.25 | 0.32 | | |
| Total, real | | 50 | 7 | 73 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalnares - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (43)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|--------------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 08:54 (C1) 09:00 (C1) | 07:44 16:15 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:49 (C1) 09:03 (C1) | 07:46 16:13 |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:47 (C1) 09:05 (C1) | 07:49 16:11 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 08:45 (C1) 09:06 (C1) | 07:51 16:09 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:44 (C1) 09:08 (C1) | 07:53 16:07 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 08:43 (C1) 09:09 (C1) | 07:55 16:06 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:42 (C1) 09:09 (C1) | 07:57 16:04 |
| 18 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 08:41 (C1) 09:09 (C1) | 07:59 16:02 |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:41 (C1) 09:10 (C1) | 08:01 16:01 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:41 (C1) 09:10 (C1) | 08:03 15:59 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:40 (C1) 09:09 (C1) | 08:05 15:58 |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:40 (C1) 09:09 (C1) | 08:07 15:56 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:41 (C1) 09:09 (C1) | 08:09 15:55 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:41 (C1) 09:08 (C1) | 08:11 15:53 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 07:41 (C1) 08:07 (C1) | 08:13 15:52 |
| 26 | 05:04 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 07:42 (C1) 08:07 (C1) | 08:15 15:51 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 07:43 (C1) 08:05 (C1) | 08:17 15:49 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 07:45 (C1) 08:03 (C1) | 08:19 15:48 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 07:48 (C1) 08:02 (C1) | 08:21 15:47 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 07:50 (C1) 07:59 (C1) | 08:22 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | 07:17 18:54 | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 231 | | 449 | | |
| Sun reduction | | 0.50 | | 0.26 | | |
| Oper. time red. | | 0.98 | | 0.98 | | |
| Wind dir. red. | | 0.65 | | 0.62 | | |
| Total reduction | | 0.32 | | 0.16 | | |
| Total, real | | 73 | | 70 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kalvani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (207)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:47 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:42 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:22 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:09 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:20 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 04:37 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 06:24 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:17 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:06 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:16 | 07:53 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:28 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:03 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:24 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:25 | 06:01 20:30 | 04:54 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:20 18:28 | 05:59 20:32 | 04:53 21:33 | 04:24 22:10 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:55 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:56 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:24 16:34 | 07:15 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:07 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:21 | 07:13 18:58 | 07:16 16:42 | 08:20 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | 05:34 20:53 | 04:38 21:49 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kaupernieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (155)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kaupres - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (126)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------------------|----------------------------|----------------------------|----------------------|
| 1 | 08:50 15:48 | 08:15 16:45 | 07:11 17:47 | 07:46 (C12) 08:13 (C12) | 06:49 19:53 | 07:25 (C11) 20:55 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 07:45 (C12) 08:13 (C12) | 06:46 19:55 | 07:24 (C11) 20:57 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 07:46 (C12) 08:14 (C12) | 06:43 19:57 | 07:23 (C11) 20:59 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 07:45 (C12) 08:13 (C12) | 06:41 19:59 | 07:23 (C11) 21:01 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 07:45 (C12) 17:27 (C15) | 06:38 20:01 | 07:22 (C11) 21:03 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 07:46 (C12) 17:30 (C15) | 06:35 20:03 | 07:22 (C11) 21:05 |
| 7 | 08:48 15:56 | 08:02 16:59 | 16:14 (C16) 16:23 (C16) | 06:55 18:00 | 07:46 (C12) 17:32 (C15) | 05:19 20:05 |
| 8 | 08:47 15:58 | 08:00 17:01 | 16:10 (C16) 16:25 (C16) | 06:53 18:03 | 07:46 (C12) 17:34 (C15) | 05:17 21:10 |
| 9 | 08:47 15:59 | 07:58 17:03 | 16:09 (C16) 16:28 (C16) | 06:50 18:05 | 07:48 (C12) 17:36 (C15) | 05:15 21:12 |
| 10 | 08:46 16:01 | 07:56 17:05 | 16:08 (C16) 16:29 (C16) | 06:47 18:07 | 07:49 (C12) 17:36 (C15) | 05:13 21:14 |
| 11 | 08:45 16:03 | 07:54 17:08 | 16:06 (C16) 16:30 (C16) | 06:45 18:09 | 07:50 (C12) 17:35 (C15) | 05:10 21:16 |
| 12 | 08:44 16:04 | 07:52 17:10 | 16:06 (C16) 16:31 (C16) | 06:42 18:11 | 07:54 (C12) 17:35 (C15) | 05:08 21:18 |
| 13 | 08:43 16:06 | 07:49 17:12 | 16:05 (C16) 16:33 (C16) | 06:39 18:13 | 17:12 (C15) 17:35 (C15) | 05:06 21:19 |
| 14 | 08:42 16:08 | 07:47 17:14 | 16:04 (C16) 16:33 (C16) | 06:37 18:15 | 17:12 (C15) 17:34 (C15) | 05:04 21:21 |
| 15 | 08:41 16:10 | 07:45 17:16 | 16:04 (C16) 16:33 (C16) | 06:34 18:17 | 17:12 (C15) 17:33 (C15) | 05:02 21:23 |
| 16 | 08:40 16:12 | 07:42 17:19 | 16:04 (C16) 16:33 (C16) | 06:31 18:19 | 17:13 (C15) 17:33 (C15) | 05:01 21:25 |
| 17 | 08:39 16:14 | 07:40 17:21 | 16:04 (C16) 16:34 (C16) | 06:29 18:22 | 17:14 (C15) 17:31 (C15) | 04:59 21:27 |
| 18 | 08:37 16:16 | 07:38 17:23 | 16:03 (C16) 16:33 (C16) | 06:26 18:24 | 17:15 (C15) 17:28 (C15) | 04:57 21:29 |
| 19 | 08:36 16:18 | 07:35 17:25 | 16:04 (C16) 16:33 (C16) | 06:23 18:26 | 17:19 (C15) 17:26 (C15) | 04:55 21:31 |
| 20 | 08:35 16:20 | 07:33 17:28 | 16:04 (C16) 16:33 (C16) | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 |
| 21 | 08:33 16:22 | 07:30 17:30 | 16:05 (C16) 16:33 (C16) | 06:18 18:30 | 05:57 20:34 | 04:52 21:35 |
| 22 | 08:32 16:24 | 07:28 17:32 | 07:58 (C12) 16:31 (C16) | 06:15 18:32 | 05:54 20:37 | 04:50 21:36 |
| 23 | 08:30 16:26 | 07:26 17:34 | 07:53 (C12) 16:30 (C16) | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 |
| 24 | 08:29 16:28 | 07:23 17:36 | 07:51 (C12) 16:29 (C16) | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 07:49 (C12) 16:27 (C16) | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 07:49 (C12) 16:26 (C16) | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 |
| 27 | 08:24 16:34 | 07:16 17:43 | 07:47 (C12) 16:21 (C16) | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 |
| 28 | 08:22 16:36 | 07:13 17:45 | 07:46 (C12) 08:13 (C12) | 05:59 18:45 | 05:39 20:49 | 04:41 21:46 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:57 20:51 | 20:08 (C13) 20:20 (C13) | 04:39 21:48 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:55 20:53 | 20:06 (C13) 20:21 (C13) | 04:38 21:49 |
| 31 | 08:16 16:43 | | 06:51 19:51 | 07:25 (C11) 07:56 (C11) | | 04:37 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | 621 | 678 | 521 | 910 | 907 |
| Sun reduction | | 0.20 | 0.41 | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | 0.66 | 0.64 | 0.65 | 0.66 | 0.67 |
| Total reduction | | 0.13 | 0.26 | 0.32 | 0.37 | 0.37 |
| Total, real | | 81 | 175 | 166 | 334 | 332 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kaupres - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (126)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | | October | | | November | | | December | |
|---------------------|-------|------|-------------|--------|----|-------------|-----------|------|-------------|-------------|-------|-------------|----------|------|-------------|----------|--|
| 1 | 04:30 | | 05:47 (C10) | 05:16 | | 05:54 (C10) | 06:17 | | 07:22 (C11) | 07:17 | | 17:51 (C15) | 07:22 | | 15:38 (C16) | 08:24 | |
| | 22:09 | 31 | 06:18 (C10) | 21:28 | 32 | 20:29 (C13) | 20:14 | 30 | 07:52 (C11) | 18:53 | 24 | 18:15 (C15) | 16:36 | 21 | 15:59 (C16) | 15:45 | |
| 2 | 04:31 | | 05:48 (C10) | 05:17 | | 05:56 (C10) | 06:19 | | 07:21 (C11) | 07:19 | | 08:31 (C12) | 07:25 | | 15:39 (C16) | 08:26 | |
| | 22:08 | 30 | 06:18 (C10) | 21:26 | 33 | 20:31 (C13) | 20:11 | 31 | 07:52 (C11) | 18:51 | 35 | 18:15 (C15) | 16:34 | 18 | 15:57 (C16) | 15:44 | |
| 3 | 04:32 | | 05:48 (C10) | 05:19 | | 05:58 (C10) | 06:21 | | 07:20 (C11) | 07:21 | | 08:27 (C12) | 07:27 | | 15:40 (C16) | 08:27 | |
| | 22:08 | 31 | 06:19 (C10) | 21:24 | 32 | 20:32 (C13) | 20:09 | 33 | 07:53 (C11) | 18:48 | 40 | 18:14 (C15) | 16:31 | 15 | 15:55 (C16) | 15:43 | |
| 4 | 04:33 | | 05:48 (C10) | 05:21 | | 06:01 (C10) | 06:23 | | 07:18 (C11) | 07:23 | | 08:25 (C12) | 07:29 | | 15:44 (C16) | 08:29 | |
| | 22:07 | 31 | 06:19 (C10) | 21:21 | 27 | 20:33 (C13) | 20:06 | 34 | 07:52 (C11) | 18:45 | 42 | 18:13 (C15) | 16:29 | 8 | 15:52 (C16) | 15:42 | |
| 5 | 04:34 | | 05:48 (C10) | 05:23 | | 20:15 (C13) | 06:25 | | 07:18 (C11) | 07:25 | | 08:24 (C12) | 07:31 | | | 08:31 | |
| | 22:06 | 32 | 06:20 (C10) | 21:19 | 18 | 20:33 (C13) | 20:03 | 34 | 07:52 (C11) | 18:43 | 43 | 18:12 (C15) | 16:27 | | | 15:42 | |
| 6 | 04:35 | | 05:48 (C10) | 05:25 | | 20:15 (C13) | 06:27 | | 07:17 (C11) | 07:27 | | 08:22 (C12) | 07:33 | | | 08:32 | |
| | 22:06 | 32 | 06:20 (C10) | 21:17 | 19 | 20:34 (C13) | 20:01 | 35 | 07:52 (C11) | 18:40 | 42 | 18:09 (C15) | 16:25 | | | 15:41 | |
| 7 | 04:36 | | 05:48 (C10) | 05:27 | | 20:14 (C13) | 06:29 | | 07:17 (C11) | 07:29 | | 08:21 (C12) | 07:35 | | | 08:34 | |
| | 22:05 | 33 | 06:21 (C10) | 21:15 | 20 | 20:34 (C13) | 19:58 | 34 | 07:51 (C11) | 18:38 | 40 | 18:06 (C15) | 16:23 | | | 15:40 | |
| 8 | 04:37 | | 05:48 (C10) | 05:29 | | 20:14 (C13) | 06:31 | | 07:17 (C11) | 07:31 | | 08:20 (C12) | 07:38 | | | 08:35 | |
| | 22:04 | 33 | 06:21 (C10) | 21:13 | 21 | 20:35 (C13) | 19:55 | 34 | 07:51 (C11) | 18:35 | 37 | 18:04 (C15) | 16:21 | | | 15:40 | |
| 9 | 04:38 | | 05:48 (C10) | 05:31 | | 20:14 (C13) | 06:33 | | 07:17 (C11) | 07:33 | | 08:19 (C12) | 07:40 | | | 08:36 | |
| | 22:03 | 33 | 06:21 (C10) | 21:11 | 21 | 20:35 (C13) | 19:53 | 34 | 07:51 (C11) | 18:32 | 32 | 18:01 (C15) | 16:19 | | | 15:39 | |
| 10 | 04:39 | | 05:48 (C10) | 05:33 | | 20:13 (C13) | 06:35 | | 07:17 (C11) | 07:36 | | 08:20 (C12) | 07:42 | | | 08:38 | |
| | 22:02 | 33 | 06:21 (C10) | 21:08 | 21 | 20:34 (C13) | 19:50 | 33 | 07:50 (C11) | 18:30 | 28 | 08:48 (C12) | 16:17 | | | 15:39 | |
| 11 | 04:41 | | 05:48 (C10) | 05:35 | | 20:14 (C13) | 06:37 | | 07:17 (C11) | 07:38 | | 08:19 (C12) | 07:44 | | | 08:39 | |
| | 22:01 | 33 | 06:21 (C10) | 21:06 | 19 | 20:33 (C13) | 19:47 | 32 | 07:49 (C11) | 18:27 | 29 | 08:48 (C12) | 16:15 | | | 15:38 | |
| 12 | 04:42 | | 05:48 (C10) | 05:37 | | 20:14 (C13) | 06:39 | | 07:18 (C11) | 07:40 | | 08:19 (C12) | 07:46 | | | 08:40 | |
| | 22:00 | 34 | 06:22 (C10) | 21:04 | 17 | 20:31 (C13) | 19:45 | 30 | 07:48 (C11) | 18:25 | 28 | 08:47 (C12) | 16:13 | | | 15:38 | |
| 13 | 04:43 | | 05:48 (C10) | 05:39 | | 20:14 (C13) | 06:41 | | 07:18 (C11) | 07:42 | | 08:19 (C12) | 07:48 | | | 08:41 | |
| | 21:59 | 34 | 06:22 (C10) | 21:01 | 15 | 20:29 (C13) | 19:42 | 29 | 07:47 (C11) | 18:22 | 27 | 08:46 (C12) | 16:11 | | | 15:38 | |
| 14 | 04:45 | | 05:48 (C10) | 05:41 | | 20:15 (C13) | 06:43 | | 07:19 (C11) | 07:44 | | 08:19 (C12) | 07:50 | | | 08:42 | |
| | 21:58 | 34 | 06:22 (C10) | 20:59 | 12 | 20:27 (C13) | 19:39 | 26 | 07:45 (C11) | 18:19 | 26 | 08:45 (C12) | 16:09 | | | 15:38 | |
| 15 | 04:46 | | 05:48 (C10) | 05:43 | | 20:16 (C13) | 06:45 | | 07:20 (C11) | 07:46 | | 08:20 (C12) | 07:53 | | | 08:43 | |
| | 21:56 | 34 | 06:22 (C10) | 20:57 | 9 | 20:25 (C13) | 19:37 | 23 | 07:43 (C11) | 18:17 | 35 | 16:55 (C16) | 16:07 | | | 15:38 | |
| 16 | 04:48 | | 05:48 (C10) | 05:45 | | 20:18 (C13) | 06:47 | | 07:22 (C11) | 07:48 | | 08:21 (C12) | 07:55 | | | 08:44 | |
| | 21:55 | 35 | 06:23 (C10) | 20:54 | 5 | 20:23 (C13) | 19:34 | 19 | 07:41 (C11) | 18:14 | 40 | 16:59 (C16) | 16:06 | | | 15:38 | |
| 17 | 04:49 | | 05:48 (C10) | 05:47 | | | 06:49 | | 07:25 (C11) | 07:50 | | 08:22 (C12) | 07:57 | | | 08:45 | |
| | 21:54 | 35 | 06:23 (C10) | 20:52 | | | 19:31 | 13 | 07:38 (C11) | 18:12 | 40 | 17:00 (C16) | 16:04 | | | 15:38 | |
| 18 | 04:51 | | 05:49 (C10) | 05:49 | | | 06:51 | | | 07:52 | | 08:23 (C12) | 07:59 | | | 08:46 | |
| | 21:52 | 35 | 06:24 (C10) | 20:49 | | | 19:28 | | | 18:09 | 40 | 17:01 (C16) | 16:02 | | | 15:38 | |
| 19 | 04:52 | | 05:48 (C10) | 05:51 | | | 06:53 | | | 07:54 | | 08:25 (C12) | 08:01 | | | 08:47 | |
| | 21:51 | 35 | 06:23 (C10) | 20:47 | | | 19:26 | | | 18:07 | 37 | 17:01 (C16) | 16:01 | | | 15:38 | |
| 20 | 04:54 | | 05:49 (C10) | 05:53 | | | 06:55 | | | 07:56 | | 16:36 (C16) | 08:03 | | | 08:48 | |
| | 21:49 | 35 | 06:24 (C10) | 20:44 | | | 19:23 | | | 18:04 | 27 | 17:03 (C16) | 15:59 | | | 15:39 | |
| 21 | 04:56 | | 05:49 (C10) | 05:55 | | | 06:57 | | | 07:59 | | 16:35 (C16) | 08:05 | | | 08:48 | |
| | 21:48 | 34 | 06:23 (C10) | 20:42 | | | 19:20 | | | 18:02 | 28 | 17:03 (C16) | 15:58 | | | 15:39 | |
| 22 | 04:57 | | 05:49 (C10) | 05:57 | | | 06:59 | | | 08:01 | | 16:34 (C16) | 08:07 | | | 08:49 | |
| | 21:46 | 34 | 06:23 (C10) | 20:39 | | | 19:18 | | | 17:59 | 29 | 17:03 (C16) | 15:56 | | | 15:39 | |
| 23 | 04:59 | | 05:49 (C10) | 05:59 | | | 07:01 | | | 08:03 | | 16:34 (C16) | 08:09 | | | 08:49 | |
| | 21:44 | 34 | 06:23 (C10) | 20:37 | | | 19:15 | | | 17:57 | 30 | 17:04 (C16) | 15:55 | | | 15:40 | |
| 24 | 05:01 | | 05:50 (C10) | 06:01 | | | 07:03 | | | 08:05 | | 16:34 (C16) | 08:11 | | | 08:50 | |
| | 21:43 | 33 | 06:23 (C10) | 20:34 | | | 19:12 | | | 17:54 | 29 | 17:03 (C16) | 15:53 | | | 15:40 | |
| 25 | 05:03 | | 05:49 (C10) | 06:03 | | | 07:05 | | | 17:59 (C15) | 07:07 | 15:33 (C16) | 08:13 | | | 08:50 | |
| | 21:41 | 33 | 06:22 (C10) | 20:32 | | | 19:10 | 11 | 18:10 (C15) | 16:52 | 30 | 16:03 (C16) | 15:52 | | | 15:41 | |
| 26 | 05:04 | | 05:50 (C10) | 06:05 | | 07:35 (C11) | 07:07 | | 17:56 (C15) | 07:09 | | 15:33 (C16) | 08:15 | | | 08:50 | |
| | 21:39 | 32 | 06:22 (C10) | 20:29 | 5 | 07:40 (C11) | 19:07 | 16 | 18:12 (C15) | 16:50 | 29 | 16:02 (C16) | 15:51 | | | 15:42 | |
| 27 | 05:06 | | 05:51 (C10) | 06:07 | | 07:30 (C11) | 07:09 | | 17:54 (C15) | 07:12 | | 15:34 (C16) | 08:17 | | | 08:51 | |
| | 21:37 | 31 | 06:22 (C10) | 20:27 | 15 | 07:45 (C11) | 19:04 | 19 | 18:13 (C15) | 16:47 | 29 | 16:03 (C16) | 15:49 | | | 15:43 | |
| 28 | 05:08 | | 05:51 (C10) | 06:09 | | 07:27 (C11) | 07:11 | | 17:53 (C15) | 07:14 | | 15:34 (C16) | 08:19 | | | 08:51 | |
| | 21:35 | 30 | 06:21 (C10) | 20:24 | 20 | 07:47 (C11) | 19:01 | 21 | 18:14 (C15) | 16:45 | 28 | 16:02 (C16) | 15:48 | | | 15:44 | |
| 29 | 05:10 | | 05:52 (C10) | 06:11 | | 07:26 (C11) | 07:13 | | 17:52 (C15) | 07:16 | | 15:35 (C16) | 08:20 | | | 08:51 | |
| | 21:34 | 28 | 06:20 (C10) | 20:22 | 23 | 07:49 (C11) | 18:59 | 22 | 18:14 (C15) | 16:43 | 27 | 16:02 (C16) | 15:47 | | | 15:45 | |
| 30 | 05:12 | | 05:53 (C10) | 06:13 | | 07:24 (C11) | 07:15 | | 17:52 (C15) | 07:18 | | 15:35 (C16) | 08:22 | | | 08:51 | |
| | 21:32 | 27 | 06:20 (C10) | 20:19 | 26 | 07:50 (C11) | 18:56 | 23 | 18:15 (C15) | 16:40 | 26 | 16:01 (C16) | 15:46 | | | 15:46 | |
| 31 | 05:14 | | 05:54 (C10) | 06:15 | | 07:23 (C11) | | | | 07:20 | | 15:36 (C16) | | | | 08:51 | |
| | 21:30 | 28 | 20:27 (C13) | 20:16 | 28 | 07:51 (C11) | | | | 16:38 | 23 | 15:59 (C16) | | | | 15:47 | |
| Potential sun hours | 529 | | | 469 | | | 385 | | | 324 | | | 247 | | | 216 | |
| Total, worst case | | 1007 | | | | 438 | | 616 | | | 1000 | | | 62 | | | |
| Sun reduction | | 0.49 | | | | 0.50 | | 0.43 | | | 0.26 | | | 0.08 | | | |
| Oper. time red. | | 0.98 | | | | 0.98 | | 0.98 | | | 0.98 | | | 0.98 | | | |
| Wind dir. red. | | 0.67 | | | | 0.64 | | 0.65 | | | 0.65 | | | 0.67 | | | |
| Total reduction | | 0.32 | | | | 0.31 | | 0.27 | | | 0.16 | | | 0.05 | | | |
| Total, real | | 325 | | | | 136 | | 168 | | | 164 | | | 3 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kaupres 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (127)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------------|----------------------|----------------------|----------------------|
| 1 | 08:50 15:48 | 08:15 16:45 | 07:11 17:47 | 07:47 (C12) 19:53 | 07:26 (C11) 20:55 | 20:04 (C13) 21:52 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 07:47 (C12) 19:55 | 07:25 (C11) 20:57 | 20:04 (C13) 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 07:47 (C12) 19:57 | 07:24 (C11) 20:59 | 20:04 (C13) 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 07:47 (C12) 19:59 | 07:24 (C11) 21:01 | 20:04 (C13) 21:56 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 07:46 (C12) 20:01 | 07:23 (C11) 21:03 | 20:04 (C13) 21:58 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 07:47 (C12) 20:03 | 07:23 (C11) 21:05 | 20:05 (C13) 21:59 |
| 7 | 08:48 15:56 | 08:02 16:59 | 16:15 (C16) 18:00 | 07:48 (C12) 20:05 | 07:23 (C11) 21:08 | 20:05 (C13) 22:00 |
| 8 | 08:47 15:58 | 08:00 17:01 | 16:12 (C16) 18:03 | 07:48 (C12) 20:07 | 07:22 (C11) 21:10 | 20:06 (C13) 22:01 |
| 9 | 08:47 15:59 | 07:58 17:03 | 16:10 (C16) 18:05 | 07:50 (C12) 20:09 | 07:23 (C11) 21:12 | 05:50 (C10) 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 16:09 (C16) 18:07 | 07:51 (C12) 20:12 | 07:23 (C11) 21:14 | 05:47 (C10) 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 16:07 (C16) 18:09 | 07:53 (C12) 20:14 | 07:24 (C11) 21:16 | 05:45 (C10) 22:04 |
| 12 | 08:44 16:04 | 07:52 17:10 | 16:07 (C16) 18:11 | 17:12 (C15) 20:16 | 07:24 (C11) 21:18 | 05:44 (C10) 22:05 |
| 13 | 08:43 16:06 | 07:49 17:12 | 16:06 (C16) 18:13 | 17:12 (C15) 20:18 | 07:25 (C11) 21:19 | 05:42 (C10) 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 16:05 (C16) 18:15 | 17:12 (C15) 20:20 | 07:26 (C11) 21:21 | 05:42 (C10) 22:06 |
| 15 | 08:41 16:10 | 07:45 17:16 | 16:05 (C16) 18:17 | 17:12 (C15) 20:22 | 07:28 (C11) 21:23 | 05:41 (C10) 22:07 |
| 16 | 08:40 16:12 | 07:42 17:19 | 16:05 (C16) 18:19 | 17:13 (C15) 20:24 | 07:30 (C11) 21:25 | 05:40 (C10) 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 16:05 (C16) 18:22 | 17:14 (C15) 20:26 | 07:35 (C11) 21:27 | 05:40 (C10) 22:08 |
| 18 | 08:37 16:16 | 07:38 17:23 | 16:04 (C16) 18:24 | 17:16 (C15) 20:28 | 04:57 21:29 | 05:40 (C10) 22:09 |
| 19 | 08:36 16:18 | 07:35 17:25 | 16:05 (C16) 18:26 | 17:21 (C15) 20:30 | 04:55 21:31 | 05:39 (C10) 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 16:05 (C16) 18:28 | 05:59 20:32 | 04:53 21:33 | 05:39 (C10) 22:09 |
| 21 | 08:33 16:22 | 07:30 17:30 | 16:06 (C16) 18:30 | 05:57 20:34 | 04:52 21:35 | 05:38 (C10) 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 07:57 (C12) 18:32 | 05:54 20:37 | 04:50 21:36 | 05:39 (C10) 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 07:53 (C12) 18:34 | 05:52 20:39 | 04:48 21:38 | 05:38 (C10) 22:10 |
| 24 | 08:29 16:28 | 07:23 17:36 | 07:52 (C12) 18:36 | 05:49 20:41 | 04:47 21:40 | 05:38 (C10) 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 07:50 (C12) 18:38 | 05:47 20:43 | 04:45 21:41 | 05:38 (C10) 22:10 |
| 26 | 08:25 16:32 | 07:18 17:41 | 07:50 (C12) 18:40 | 06:37 (C11) 20:45 | 04:44 21:43 | 05:39 (C10) 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 07:48 (C12) 18:42 | 06:34 (C11) 20:47 | 20:10 (C13) 21:45 | 05:38 (C10) 22:10 |
| 28 | 08:22 16:36 | 07:13 17:45 | 16:22 (C16) 18:45 | 06:53 (C11) 20:49 | 20:16 (C13) 21:46 | 06:14 (C10) 22:10 |
| 29 | 08:20 16:39 | 07:11 17:47 | 07:47 (C12) 19:47 | 06:31 (C11) 20:51 | 20:18 (C13) 21:48 | 06:14 (C10) 22:09 |
| 30 | 08:18 16:41 | 07:09 17:49 | 07:45 (C12) 19:49 | 07:30 (C11) 20:53 | 20:06 (C13) 21:49 | 05:39 (C10) 22:09 |
| 31 | 08:16 16:43 | 07:07 17:51 | 07:43 (C12) 19:51 | 07:26 (C11) 20:57 | 20:21 (C13) 21:51 | 05:39 (C10) 22:09 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | 629 | 668 | 531 | 891 | 946 |
| Sun reduction | | 0.20 | 0.41 | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | 0.66 | 0.64 | 0.65 | 0.66 | 0.67 |
| Total reduction | | 0.13 | 0.26 | 0.32 | 0.37 | 0.37 |
| Total, real | | 82 | 172 | 169 | 327 | 346 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kaupres 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (127)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | | October | | | November | | | December | |
|---------------------|-------|------|-------------|--------|----|-------------|-----------|------|-------------|---------|-------------|-------------|----------|------|-------------|----------|--|
| 1 | 04:30 | | 05:47 (C10) | 05:16 | | 05:55 (C10) | 06:17 | | 07:23 (C11) | 07:17 | | 17:52 (C15) | 07:22 | | 15:39 (C16) | 08:24 | |
| 2 | 22:09 | 31 | 06:18 (C10) | 21:28 | 27 | 20:26 (C13) | 20:14 | 30 | 07:53 (C11) | 18:53 | 23 | 18:15 (C15) | 16:36 | 20 | 15:59 (C16) | 15:45 | |
| 3 | 04:31 | | 05:47 (C10) | 05:17 | | 05:56 (C10) | 06:19 | | 07:22 (C11) | 07:19 | | 08:34 (C12) | 07:25 | | 15:40 (C16) | 08:26 | |
| 4 | 22:08 | 32 | 06:19 (C10) | 21:26 | 29 | 20:29 (C13) | 20:11 | 32 | 07:54 (C11) | 18:51 | 30 | 18:14 (C15) | 16:34 | 17 | 15:57 (C16) | 15:44 | |
| 5 | 04:32 | | 05:47 (C10) | 05:19 | | 05:58 (C10) | 06:21 | | 07:21 (C11) | 07:21 | | 08:30 (C12) | 07:27 | | 15:42 (C16) | 08:27 | |
| 6 | 22:08 | 32 | 06:19 (C10) | 21:24 | 30 | 20:31 (C13) | 20:09 | 33 | 07:54 (C11) | 18:48 | 38 | 18:14 (C15) | 16:31 | 13 | 15:55 (C16) | 15:43 | |
| 7 | 04:33 | | 05:47 (C10) | 05:21 | | 06:02 (C10) | 06:23 | | 07:19 (C11) | 07:23 | | 08:28 (C12) | 07:29 | | 15:46 (C16) | 08:29 | |
| 8 | 22:07 | 33 | 06:20 (C10) | 21:21 | 25 | 20:32 (C13) | 20:06 | 34 | 07:53 (C11) | 18:45 | 40 | 18:13 (C15) | 16:29 | 6 | 15:52 (C16) | 15:42 | |
| 9 | 04:34 | | 05:47 (C10) | 05:23 | | 20:15 (C13) | 06:25 | | 07:19 (C11) | 07:25 | | 08:26 (C12) | 07:31 | | | 08:31 | |
| 10 | 22:06 | 33 | 06:20 (C10) | 21:19 | 17 | 20:32 (C13) | 20:03 | 34 | 07:53 (C11) | 18:43 | 43 | 18:12 (C15) | 16:27 | | | 15:42 | |
| 11 | 04:35 | | 05:47 (C10) | 05:25 | | 20:14 (C13) | 06:27 | | 07:18 (C11) | 07:27 | | 08:24 (C12) | 07:33 | | | 08:32 | |
| 12 | 22:06 | 34 | 06:21 (C10) | 21:17 | 18 | 20:32 (C13) | 20:01 | 35 | 07:53 (C11) | 18:40 | 41 | 18:09 (C15) | 16:25 | | | 15:41 | |
| 13 | 04:36 | | 05:47 (C10) | 05:27 | | 20:14 (C13) | 06:29 | | 07:18 (C11) | 07:29 | | 08:23 (C12) | 07:35 | | | 08:34 | |
| 14 | 22:05 | 34 | 06:21 (C10) | 21:15 | 19 | 20:33 (C13) | 19:58 | 35 | 07:53 (C11) | 18:38 | 40 | 18:06 (C15) | 16:23 | | | 15:40 | |
| 15 | 04:37 | | 05:47 (C10) | 05:29 | | 20:13 (C13) | 06:31 | | 07:18 (C11) | 07:31 | | 08:22 (C12) | 07:38 | | | 08:35 | |
| 16 | 22:04 | 34 | 06:21 (C10) | 21:13 | 20 | 20:33 (C13) | 19:55 | 35 | 07:53 (C11) | 18:35 | 37 | 18:04 (C15) | 16:21 | | | 15:40 | |
| 17 | 04:38 | | 05:47 (C10) | 05:31 | | 20:13 (C13) | 06:33 | | 07:18 (C11) | 07:33 | | 08:21 (C12) | 07:40 | | | 08:36 | |
| 18 | 22:03 | 34 | 06:21 (C10) | 21:11 | 21 | 20:34 (C13) | 19:53 | 34 | 07:52 (C11) | 18:32 | 32 | 18:01 (C15) | 16:19 | | | 15:39 | |
| 19 | 04:39 | | 05:47 (C10) | 05:33 | | 20:12 (C13) | 06:35 | | 07:18 (C11) | 07:36 | | 08:21 (C12) | 07:42 | | | 08:38 | |
| 20 | 22:02 | 35 | 06:22 (C10) | 21:08 | 21 | 20:33 (C13) | 19:50 | 33 | 07:51 (C11) | 18:30 | 29 | 08:50 (C12) | 16:17 | | | 15:39 | |
| 21 | 04:41 | | 05:47 (C10) | 05:35 | | 20:12 (C13) | 06:37 | | 07:18 (C11) | 07:38 | | 08:21 (C12) | 07:44 | | | 08:39 | |
| 22 | 22:01 | 35 | 06:22 (C10) | 21:06 | 21 | 20:33 (C13) | 19:47 | 33 | 07:51 (C11) | 18:27 | 28 | 08:49 (C12) | 16:15 | | | 15:38 | |
| 23 | 04:42 | | 05:48 (C10) | 05:37 | | 20:13 (C13) | 06:39 | | 07:18 (C11) | 07:40 | | 08:21 (C12) | 07:46 | | | 08:40 | |
| 24 | 22:00 | 35 | 06:23 (C10) | 21:04 | 18 | 20:31 (C13) | 19:45 | 32 | 07:50 (C11) | 18:25 | 28 | 08:49 (C12) | 16:13 | | | 15:38 | |
| 25 | 04:43 | | 05:48 (C10) | 05:39 | | 20:13 (C13) | 06:41 | | 07:19 (C11) | 07:42 | | 08:20 (C12) | 07:48 | | | 08:41 | |
| 26 | 21:59 | 35 | 06:23 (C10) | 21:01 | 16 | 20:29 (C13) | 19:42 | 29 | 07:48 (C11) | 18:22 | 28 | 08:48 (C12) | 16:11 | | | 15:38 | |
| 27 | 04:45 | | 05:47 (C10) | 05:41 | | 20:14 (C13) | 06:43 | | 07:20 (C11) | 07:44 | | 08:20 (C12) | 07:50 | | | 08:42 | |
| 28 | 21:58 | 36 | 06:23 (C10) | 20:59 | 13 | 20:27 (C13) | 19:39 | 27 | 07:47 (C11) | 18:19 | 27 | 08:47 (C12) | 16:09 | | | 15:38 | |
| 29 | 04:46 | | 05:47 (C10) | 05:43 | | 20:15 (C13) | 06:45 | | 07:21 (C11) | 07:46 | | 08:21 (C12) | 07:53 | | | 08:43 | |
| 30 | 21:56 | 35 | 06:22 (C10) | 20:57 | 10 | 20:25 (C13) | 19:37 | 24 | 07:45 (C11) | 18:17 | 36 | 16:56 (C16) | 16:07 | | | 15:38 | |
| 31 | 04:48 | | 05:48 (C10) | 05:45 | | 20:16 (C13) | 06:47 | | 07:23 (C11) | 07:48 | | 08:22 (C12) | 07:55 | | | 08:44 | |
| 32 | 21:55 | 35 | 06:23 (C10) | 20:54 | 7 | 20:23 (C13) | 19:34 | 20 | 07:43 (C11) | 18:14 | 40 | 16:59 (C16) | 16:06 | | | 15:38 | |
| 33 | 04:49 | | 05:47 (C10) | 05:47 | | 20:17 (C13) | 06:49 | | 07:25 (C11) | 07:50 | | 08:23 (C12) | 07:57 | | | 08:45 | |
| 34 | 21:54 | 36 | 06:23 (C10) | 20:52 | 2 | 20:19 (C13) | 19:31 | 15 | 07:40 (C11) | 18:12 | 42 | 17:01 (C16) | 16:04 | | | 15:38 | |
| 35 | 04:51 | | 05:48 (C10) | 05:49 | | | 06:51 | | 07:29 (C11) | 07:52 | | 08:24 (C12) | 07:59 | | | 08:46 | |
| 36 | 21:52 | 36 | 06:24 (C10) | 20:49 | | | 19:28 | 6 | 07:35 (C11) | 18:09 | 42 | 17:02 (C16) | 16:02 | | | 15:38 | |
| 37 | 04:52 | | 05:48 (C10) | 05:51 | | | 06:53 | | | 07:54 | | 08:25 (C12) | 08:01 | | | 08:47 | |
| 38 | 21:51 | 35 | 06:23 (C10) | 20:47 | | | 19:26 | | | 18:07 | 40 | 17:02 (C16) | 16:01 | | | 15:38 | |
| 39 | 04:54 | | 05:49 (C10) | 05:53 | | | 06:55 | | | 07:56 | | 08:29 (C12) | 08:03 | | | 08:48 | |
| 40 | 21:49 | 35 | 06:24 (C10) | 20:44 | | | 19:23 | | | 18:04 | 35 | 17:03 (C16) | 15:59 | | | 15:39 | |
| 41 | 04:56 | | 05:48 (C10) | 05:55 | | | 06:57 | | | 07:59 | | 16:36 (C16) | 08:05 | | | 08:48 | |
| 42 | 21:48 | 35 | 06:23 (C10) | 20:42 | | | 19:20 | | | 18:02 | 28 | 17:04 (C16) | 15:58 | | | 15:39 | |
| 43 | 04:57 | | 05:49 (C10) | 05:57 | | | 06:59 | | | 08:01 | | 16:35 (C16) | 08:07 | | | 08:49 | |
| 44 | 21:46 | 34 | 06:23 (C10) | 20:39 | | | 19:18 | | | 17:59 | 29 | 17:04 (C16) | 15:56 | | | 15:39 | |
| 45 | 04:59 | | 05:49 (C10) | 05:59 | | | 07:01 | | | 08:03 | | 16:35 (C16) | 08:09 | | | 08:49 | |
| 46 | 21:44 | 34 | 06:23 (C10) | 20:37 | | | 19:15 | | | 17:57 | 29 | 17:04 (C16) | 15:55 | | | 15:40 | |
| 47 | 05:01 | | 05:49 (C10) | 06:01 | | | 07:03 | | | 08:05 | | 16:35 (C16) | 08:11 | | | 08:50 | |
| 48 | 21:43 | 34 | 06:23 (C10) | 20:34 | | | 19:12 | | | 17:54 | 29 | 17:04 (C16) | 15:53 | | | 15:40 | |
| 49 | 05:03 | | 05:49 (C10) | 06:03 | | | 07:05 | | 18:00 (C15) | 07:07 | | 15:34 (C16) | 08:13 | | | 08:50 | |
| 50 | 21:41 | 33 | 06:22 (C10) | 20:32 | | | 19:10 | 10 | 18:10 (C15) | 16:52 | 30 | 16:04 (C16) | 15:52 | | | 15:41 | |
| 51 | 05:04 | | 05:50 (C10) | 06:05 | | 07:36 (C11) | 07:07 | | 17:57 (C15) | 07:09 | | 15:34 (C16) | 08:15 | | | 08:50 | |
| 52 | 21:39 | 32 | 06:22 (C10) | 20:29 | 5 | 07:41 (C11) | 19:07 | 15 | 18:12 (C15) | 16:50 | 29 | 16:03 (C16) | 15:51 | | | 15:42 | |
| 53 | 05:06 | | 05:51 (C10) | 06:07 | | 07:31 (C11) | 07:09 | | 17:55 (C15) | 07:12 | | 15:35 (C16) | 08:17 | | | 08:51 | |
| 54 | 21:37 | 31 | 06:22 (C10) | 20:27 | 15 | 07:46 (C11) | 19:04 | 18 | 18:13 (C15) | 16:47 | 28 | 16:03 (C16) | 15:49 | | | 15:43 | |
| 55 | 05:08 | | 05:51 (C10) | 06:09 | | 07:29 (C11) | 07:11 | | 17:53 (C15) | 07:14 | | 15:35 (C16) | 08:19 | | | 08:51 | |
| 56 | 21:35 | 29 | 06:20 (C10) | 20:24 | 19 | 07:48 (C11) | 19:01 | 20 | 18:13 (C15) | 16:45 | 28 | 16:03 (C16) | 15:48 | | | 15:44 | |
| 57 | 05:10 | | 05:52 (C10) | 06:11 | | 07:27 (C11) | 07:13 | | 17:52 (C15) | 07:16 | | 15:36 (C16) | 08:20 | | | 08:51 | |
| 58 | 21:34 | 28 | 06:20 (C10) | 20:22 | 23 | 07:50 (C11) | 18:59 | 22 | 18:14 (C15) | 16:43 | 27 | 16:03 (C16) | 15:47 | | | 15:45 | |
| 59 | 05:12 | | 05:53 (C10) | 06:13 | | 07:25 (C11) | 07:15 | | 17:52 (C15) | 07:18 | | 15:36 (C16) | 08:22 | | | 08:51 | |
| 60 | 21:32 | 26 | 06:19 (C10) | 20:19 | 26 | 07:51 (C11) | 18:56 | 23 | 18:15 (C15) | 16:40 | 25 | 16:01 (C16) | 15:46 | | | 15:46 | |
| 61 | 05:14 | | 05:54 (C10) | 06:15 | | 07:24 (C11) | | | 07:20 | | | 15:37 (C16) | | | | 08:51 | |
| 62 | 21:30 | 25 | 06:19 (C10) | 20:16 | 28 | 07:52 (C11) | | | 16:38 | 23 | 16:00 (C16) | | 15:47 | | | 15:47 | |
| Potential sun hours | 529 | | | 469 | | | 385 | | | 324 | | | 247 | | | 216 | |
| Total, worst case | | 1026 | | | | 430 | | 629 | | | 1004 | | | 56 | | | |
| Sun reduction | | 0.49 | | | | 0.50 | | 0.43 | | | 0.26 | | | 0.08 | | | |
| Oper. time red. | | 0.98 | | | | 0.98 | | 0.98 | | | 0.98 | | | 0.98 | | | |
| Wind dir. red. | | 0.67 | | | | 0.64 | | 0.65 | | | 0.65 | | | 0.67 | | | |
| Total reduction | | 0.32 | | | | 0.31 | | 0.27 | | | 0.16 | | | 0.05 | | | |
| Total, real | | 331 | | | | 134 | | 171 | | | 165 | | | 3 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Krasta Ozoli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (9)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|-------|---------------|--------------|---------------|
| 1 | 08:51 | 08:15 | 07:11 | 06:49 | 05:32 | 06:28 (C1) |
| | 15:48 | 16:45 | 17:47 | 19:53 | 20:55 | 33 07:01 (C1) |
| 2 | 08:50 | 08:13 | 07:08 | 06:46 | 05:30 | 06:29 (C1) |
| | 15:49 | 16:47 | 17:50 | 19:55 | 20:57 | 31 07:00 (C1) |
| 3 | 08:50 | 08:11 | 07:06 | 06:43 | 05:28 | 06:29 (C1) |
| | 15:51 | 16:50 | 17:52 | 19:57 | 21:00 | 31 07:00 (C1) |
| 4 | 08:50 | 08:09 | 07:03 | 06:41 | 05:26 | 06:30 (C1) |
| | 15:52 | 16:52 | 17:54 | 19:59 | 21:02 | 29 06:59 (C1) |
| 5 | 08:49 | 08:07 | 07:00 | 06:38 | 05:23 | 06:30 (C1) |
| | 15:53 | 16:54 | 17:56 | 20:01 | 21:04 | 28 06:58 (C1) |
| 6 | 08:49 | 08:05 | 06:58 | 06:35 | 05:21 | 06:31 (C1) |
| | 15:55 | 16:56 | 17:58 | 20:03 | 21:06 | 26 06:57 (C1) |
| 7 | 08:48 | 08:03 | 06:55 | 06:33 | 05:19 | 06:32 (C1) |
| | 15:56 | 16:59 | 18:00 | 20:05 | 21:08 | 24 06:56 (C1) |
| 8 | 08:48 | 08:00 | 06:53 | 06:30 | 05:17 | 06:33 (C1) |
| | 15:58 | 17:01 | 18:03 | 20:08 | 21:10 | 22 06:55 (C1) |
| 9 | 08:47 | 07:58 | 06:50 | 06:27 | 05:15 | 06:35 (C1) |
| | 15:59 | 17:03 | 18:05 | 20:10 | 21:12 | 18 06:53 (C1) |
| 10 | 08:46 | 07:56 | 06:47 | 06:25 | 05:13 | 06:37 (C1) |
| | 16:01 | 17:05 | 18:07 | 20:12 | 21:14 | 14 06:51 (C1) |
| 11 | 08:45 | 07:54 | 06:45 | 06:22 | 05:10 | 06:40 (C1) |
| | 16:03 | 17:08 | 18:09 | 20:14 | 21:16 | 7 06:47 (C1) |
| 12 | 08:44 | 07:52 | 06:42 | 06:20 | 05:08 | |
| | 16:04 | 17:10 | 18:11 | 20:16 | 21:18 | |
| 13 | 08:43 | 07:49 | 06:39 | 06:17 | 05:06 | |
| | 16:06 | 17:12 | 18:13 | 20:18 | 21:20 | |
| 14 | 08:42 | 07:47 | 06:37 | 06:14 | 05:04 | |
| | 16:08 | 17:14 | 18:15 | 20:20 | 21:22 | |
| 15 | 08:41 | 07:45 | 06:34 | 06:12 | 06:46 (C1) | 05:02 |
| | 16:10 | 17:17 | 18:17 | 20:22 | 4 06:50 (C1) | 21:24 |
| 16 | 08:40 | 07:43 | 06:32 | 06:09 | 06:41 (C1) | 05:01 |
| | 16:12 | 17:19 | 18:20 | 1 06:58 (C4) | 20:24 | 14 06:55 (C1) |
| 17 | 08:39 | 07:40 | 06:29 | 06:07 | 06:38 (C1) | 04:59 |
| | 16:14 | 17:21 | 18:22 | 6 07:00 (C4) | 20:26 | 19 06:57 (C1) |
| 18 | 08:37 | 07:38 | 06:26 | 06:04 | 06:36 (C1) | 04:57 |
| | 16:16 | 17:23 | 18:24 | 10 07:01 (C4) | 20:28 | 22 06:58 (C1) |
| 19 | 08:36 | 07:35 | 06:24 | 06:02 | 06:34 (C1) | 04:55 |
| | 16:18 | 17:25 | 18:26 | 13 07:02 (C4) | 20:30 | 26 07:00 (C1) |
| 20 | 08:35 | 07:33 | 06:21 | 06:00 | 06:32 (C1) | 04:53 |
| | 16:20 | 17:28 | 18:28 | 16 07:02 (C4) | 20:33 | 28 07:00 (C1) |
| 21 | 08:33 | 07:31 | 06:18 | 06:43 (C4) | 05:57 | 06:32 (C1) |
| | 16:22 | 17:30 | 18:30 | 19 07:02 (C4) | 20:35 | 29 07:01 (C1) |
| 22 | 08:32 | 07:28 | 06:15 | 06:43 (C4) | 05:54 | 06:31 (C1) |
| | 16:24 | 17:32 | 18:32 | 20 07:03 (C4) | 20:37 | 31 07:02 (C1) |
| 23 | 08:30 | 07:26 | 06:13 | 06:43 (C4) | 05:52 | 06:30 (C1) |
| | 16:26 | 17:34 | 18:34 | 19 07:02 (C4) | 20:39 | 32 07:02 (C1) |
| 24 | 08:29 | 07:23 | 06:10 | 06:42 (C4) | 05:49 | 06:29 (C1) |
| | 16:28 | 17:37 | 18:36 | 19 07:01 (C4) | 20:41 | 34 07:03 (C1) |
| 25 | 08:27 | 07:21 | 06:07 | 06:43 (C4) | 05:47 | 06:29 (C1) |
| | 16:30 | 17:39 | 18:38 | 16 06:59 (C4) | 20:43 | 34 07:03 (C1) |
| 26 | 08:26 | 07:18 | 06:05 | 06:44 (C4) | 05:44 | 06:28 (C1) |
| | 16:32 | 17:41 | 18:40 | 15 06:59 (C4) | 20:45 | 34 07:02 (C1) |
| 27 | 08:24 | 07:16 | 06:02 | 06:45 (C4) | 05:42 | 06:28 (C1) |
| | 16:34 | 17:43 | 18:43 | 11 06:56 (C4) | 20:47 | 34 07:02 (C1) |
| 28 | 08:22 | 07:13 | 05:59 | 06:49 (C4) | 05:40 | 06:28 (C1) |
| | 16:36 | 17:45 | 18:45 | 2 06:51 (C4) | 20:49 | 34 07:02 (C1) |
| 29 | 08:20 | | 06:57 | | 05:37 | 06:29 (C1) |
| | 16:39 | | 19:47 | | 20:51 | 33 07:02 (C1) |
| 30 | 08:18 | | 06:54 | | 05:35 | 06:28 (C1) |
| | 16:41 | | 19:49 | | 20:53 | 33 07:01 (C1) |
| 31 | 08:17 | | 06:51 | | | 04:37 |
| | 16:43 | | 19:51 | | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | | 167 | 441 | 263 | |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | | 0.64 | 0.65 | 0.65 | |
| Total reduction | | | 0.26 | 0.32 | 0.36 | |
| Total, real | | | 43 | 141 | 95 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Krasta Ozoli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (9)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 04:34 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:40 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:13 17:52 | 08:19 15:52 | 08:51 15:41 |
| 26 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 08:15 17:50 | 08:21 15:51 | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:17 17:47 | 08:23 15:49 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:19 17:45 | 08:25 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:21 17:43 | 08:27 15:47 | 08:51 15:44 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:23 17:41 | 08:29 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 08:25 17:38 | 08:31 15:47 | 08:51 13:05 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 709 | 169 | | | 225 |
| Sun reduction | | 0.50 | 0.43 | | | 0.07 |
| Oper. time red. | | 0.98 | 0.98 | | | 0.98 |
| Wind dir. red. | | 0.65 | 0.64 | | | 0.64 |
| Total reduction | | 0.32 | 0.27 | | | 0.04 |
| Total, real | | 225 | 45 | | | 10 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Krastini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (116)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|--|-------|-------|----|------------|-------|--|-------|------|--|--|
| 1 | 08:51 | | 14:26 (C14) | 08:15 | | 14:32 (C13) | 07:11 | | 06:49 | | | | 05:32 | | 04:36 | | | |
| | 15:48 | 20 | 14:46 (C14) | 16:45 | 40 | 15:12 (C13) | 17:47 | | 19:53 | | | | 20:55 | | 21:52 | | | |
| 2 | 08:50 | | 14:27 (C14) | 08:13 | | 14:33 (C13) | 07:08 | | 06:46 | | | | 05:30 | | 04:35 | | | |
| | 15:49 | 22 | 14:49 (C13) | 16:47 | 39 | 15:12 (C13) | 17:50 | | 19:55 | | | | 20:57 | | 21:54 | | | |
| 3 | 08:50 | | 14:27 (C14) | 08:11 | | 14:34 (C13) | 07:06 | | 06:43 | | | | 05:28 | | 04:34 | | | |
| | 15:51 | 23 | 14:50 (C13) | 16:50 | 38 | 15:12 (C13) | 17:52 | | 19:57 | | | | 20:59 | | 21:55 | | | |
| 4 | 08:50 | | 14:27 (C14) | 08:09 | | 14:35 (C13) | 07:03 | | 06:41 | | | | 05:26 | | 04:33 | | | |
| | 15:52 | 24 | 14:51 (C13) | 16:52 | 36 | 15:11 (C13) | 17:54 | | 19:59 | | | | 21:02 | | 21:57 | | | |
| 5 | 08:49 | | 14:29 (C14) | 08:07 | | 14:36 (C13) | 07:00 | | 06:38 | | | | 05:23 | | 04:32 | | | |
| | 15:53 | 24 | 14:53 (C13) | 16:54 | 35 | 15:11 (C13) | 17:56 | | 20:01 | | | | 21:04 | | 21:58 | | | |
| 6 | 08:49 | | 14:29 (C14) | 08:05 | | 14:36 (C13) | 06:58 | | 06:35 | | | | 05:21 | | 04:31 | | | |
| | 15:55 | 26 | 14:55 (C13) | 16:56 | 34 | 15:10 (C13) | 17:58 | | 20:03 | | | | 21:06 | | 21:59 | | | |
| 7 | 08:48 | | 14:30 (C14) | 08:03 | | 14:37 (C13) | 06:55 | | 06:33 | | | | 05:19 | | 04:30 | | | |
| | 15:56 | 26 | 14:56 (C13) | 16:59 | 32 | 15:09 (C13) | 18:00 | | 20:05 | | | | 21:08 | | 22:00 | | | |
| 8 | 08:47 | | 14:31 (C14) | 08:00 | | 14:39 (C13) | 06:53 | | 06:30 | | | | 05:17 | | 04:29 | | | |
| | 15:58 | 26 | 14:57 (C13) | 17:01 | 29 | 15:08 (C13) | 18:03 | | 20:07 | | | | 21:10 | | 22:01 | | | |
| 9 | 08:47 | | 14:32 (C14) | 07:58 | | 14:40 (C13) | 06:50 | | 06:27 | | | | 05:15 | | 04:28 | | | |
| | 15:59 | 26 | 14:58 (C13) | 17:03 | 26 | 15:06 (C13) | 18:05 | | 20:10 | | | | 21:12 | | 22:02 | | | |
| 10 | 08:46 | | 14:32 (C13) | 07:56 | | 14:42 (C13) | 06:47 | | 06:25 | | | | 05:13 | | 04:28 | | | |
| | 16:01 | 27 | 14:59 (C13) | 17:05 | 23 | 15:05 (C13) | 18:07 | | 20:12 | | | | 21:14 | | 22:03 | | | |
| 11 | 08:45 | | 14:32 (C13) | 07:54 | | 14:45 (C13) | 06:45 | | 06:22 | | | | 05:10 | | 04:27 | | | |
| | 16:03 | 29 | 15:01 (C13) | 17:08 | 18 | 15:03 (C13) | 18:09 | | 20:14 | | | | 21:16 | | 22:04 | | | |
| 12 | 08:44 | | 14:31 (C13) | 07:52 | | 14:49 (C13) | 06:42 | | 06:20 | | | 06:45 (C4) | 05:08 | | 04:27 | | | |
| | 16:04 | 30 | 15:01 (C13) | 17:10 | 10 | 14:59 (C13) | 18:11 | | 20:16 | | 3 | 06:48 (C4) | 21:18 | | 22:05 | | | |
| 13 | 08:43 | | 14:31 (C13) | 07:49 | | | 06:39 | | 06:17 | | | 06:43 (C4) | 05:06 | | 04:26 | | | |
| | 16:06 | 31 | 15:02 (C13) | 17:12 | | | 18:13 | | 20:18 | | 9 | 06:52 (C4) | 21:20 | | 22:06 | | | |
| 14 | 08:42 | | 14:31 (C13) | 07:47 | | | 06:37 | | 06:14 | | | 06:40 (C4) | 05:04 | | 04:26 | | | |
| | 16:08 | 33 | 15:04 (C13) | 17:14 | | | 18:15 | | 20:20 | | 13 | 06:53 (C4) | 21:22 | | 22:07 | | | |
| 15 | 08:41 | | 14:31 (C13) | 07:45 | | | 06:34 | | 06:12 | | | 06:38 (C4) | 05:02 | | 04:26 | | | |
| | 16:10 | 33 | 15:04 (C13) | 17:17 | | | 18:17 | | 20:22 | | 16 | 06:54 (C4) | 21:24 | | 22:07 | | | |
| 16 | 08:40 | | 14:31 (C13) | 07:43 | | | 06:31 | | 06:09 | | | 06:35 (C4) | 05:01 | | 04:25 | | | |
| | 16:12 | 34 | 15:05 (C13) | 17:19 | | | 18:20 | | 20:24 | | 19 | 06:54 (C4) | 21:25 | | 22:08 | | | |
| 17 | 08:39 | | 14:30 (C13) | 07:40 | | | 06:29 | | 06:07 | | | 06:34 (C4) | 04:59 | | 04:25 | | | |
| | 16:14 | 36 | 15:06 (C13) | 17:21 | | | 18:22 | | 20:26 | | 21 | 06:55 (C4) | 21:27 | | 22:08 | | | |
| 18 | 08:37 | | 14:31 (C13) | 07:38 | | | 06:26 | | 06:04 | | | 06:32 (C4) | 04:57 | | 04:25 | | | |
| | 16:16 | 36 | 15:07 (C13) | 17:23 | | | 18:24 | | 20:28 | | 23 | 06:55 (C4) | 21:29 | | 22:09 | | | |
| 19 | 08:36 | | 14:30 (C13) | 07:35 | | | 06:23 | | 06:02 | | | 06:32 (C4) | 04:55 | | 04:25 | | | |
| | 16:18 | 37 | 15:07 (C13) | 17:25 | | | 18:26 | | 20:30 | | 23 | 06:55 (C4) | 21:31 | | 22:09 | | | |
| 20 | 08:35 | | 14:31 (C13) | 07:33 | | | 06:21 | | 05:59 | | | 06:31 (C4) | 04:53 | | 04:25 | | | |
| | 16:20 | 38 | 15:09 (C13) | 17:28 | | | 18:28 | | 20:32 | | 24 | 06:55 (C4) | 21:33 | | 22:10 | | | |
| 21 | 08:33 | | 14:30 (C13) | 07:31 | | | 06:18 | | 05:57 | | | 06:32 (C4) | 04:52 | | 04:25 | | | |
| | 16:22 | 39 | 15:09 (C13) | 17:30 | | | 18:30 | | 20:35 | | 23 | 06:55 (C4) | 21:35 | | 22:10 | | | |
| 22 | 08:32 | | 14:30 (C13) | 07:28 | | | 06:15 | | 05:54 | | | 06:32 (C4) | 04:50 | | 04:25 | | | |
| | 16:24 | 39 | 15:09 (C13) | 17:32 | | | 18:32 | | 20:37 | | 23 | 06:55 (C4) | 21:36 | | 22:10 | | | |
| 23 | 08:30 | | 14:30 (C13) | 07:26 | | | 06:13 | | 05:52 | | | 06:32 (C4) | 04:48 | | 04:26 | | | |
| | 16:26 | 40 | 15:10 (C13) | 17:34 | | | 18:34 | | 20:39 | | 21 | 06:53 (C4) | 21:38 | | 22:10 | | | |
| 24 | 08:29 | | 14:30 (C13) | 07:23 | | | 06:10 | | 05:49 | | | 06:33 (C4) | 04:47 | | 04:26 | | | |
| | 16:28 | 40 | 15:10 (C13) | 17:37 | | | 18:36 | | 20:41 | | 20 | 06:53 (C4) | 21:40 | | 22:10 | | | |
| 25 | 08:27 | | 14:31 (C13) | 07:21 | | | 06:07 | | 05:47 | | | 06:34 (C4) | 04:45 | | 04:26 | | | |
| | 16:30 | 40 | 15:11 (C13) | 17:39 | | | 18:38 | | 20:43 | | 18 | 06:52 (C4) | 21:42 | | 22:10 | | | |
| 26 | 08:25 | | 14:31 (C13) | 07:18 | | | 06:05 | | 05:44 | | | 06:34 (C4) | 04:44 | | 04:27 | | | |
| | 16:32 | 41 | 15:12 (C13) | 17:41 | | | 18:40 | | 20:45 | | 16 | 06:50 (C4) | 21:43 | | 22:10 | | | |
| 27 | 08:24 | | 14:31 (C13) | 07:16 | | | 06:02 | | 05:42 | | | 06:36 (C4) | 04:42 | | 04:27 | | | |
| | 16:34 | 41 | 15:12 (C13) | 17:43 | | | 18:43 | | 20:47 | | 12 | 06:48 (C4) | 21:45 | | 22:10 | | | |
| 28 | 08:22 | | 14:31 (C13) | 07:13 | | | 05:59 | | 05:40 | | | 06:38 (C4) | 04:41 | | 04:28 | | | |
| | 16:36 | 41 | 15:12 (C13) | 17:45 | | | 18:45 | | 20:49 | | 7 | 06:45 (C4) | 21:47 | | 22:10 | | | |
| 29 | 08:20 | | 14:32 (C13) | | | | 06:57 | | 05:37 | | | | 04:39 | | 04:28 | | | |
| | 16:39 | 40 | 15:12 (C13) | | | | 19:47 | | 20:51 | | | | 21:48 | | 22:10 | | | |
| 30 | 08:18 | | 14:32 (C13) | | | | 06:54 | | 05:35 | | | | 04:38 | | 04:29 | | | |
| | 16:41 | 41 | 15:13 (C13) | | | | 19:49 | | 20:53 | | | | 21:50 | | 22:09 | | | |
| 31 | 08:17 | | 14:32 (C13) | | | | 06:51 | | | | | | 04:37 | | | | | |
| | 16:43 | 40 | 15:12 (C13) | | | | 19:51 | | | | | | 21:51 | | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | 426 | | | | 508 | | 529 | | | |
| Total, worst case | 1023 | | | 360 | | | | | 291 | | | | | | | | | |
| Sun reduction | 0.13 | | | 0.20 | | | | | 0.50 | | | | | | | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | | | 0.98 | | | | | | | | | |
| Wind dir. red. | 0.66 | | | 0.66 | | | | | 0.65 | | | | | | | | | |
| Total reduction | 0.09 | | | 0.13 | | | | | 0.32 | | | | | | | | | |
| Total, real | 89 | | | 47 | | | | | 93 | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Krastini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (116)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|---------------------|----------------|----------------|----------------------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 14:11 (C13) 14:35 (C13) |
| 2 | 04:31 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 14:09 (C13) 14:36 (C13) |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 14:08 (C13) 14:38 (C13) |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 14:07 (C13) 14:39 (C13) |
| 5 | 04:34 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 14:06 (C13) 14:39 (C13) |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 14:05 (C13) 14:41 (C13) |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 | 14:04 (C13) 14:41 (C13) |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 14:04 (C13) 14:42 (C13) |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 14:04 (C13) 14:42 (C13) |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 14:03 (C13) 14:43 (C13) |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 14:03 (C13) 14:43 (C13) |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 14:03 (C13) 14:43 (C13) |
| 13 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 14:04 (C13) 14:44 (C13) |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 14:03 (C13) 14:44 (C13) |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 (C4) 19:37 | 07:46 18:17 | 07:53 16:08 | 14:03 (C13) 14:44 (C13) |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:43 (C4) 19:34 | 07:48 18:14 | 07:55 16:06 | 14:04 (C13) 14:45 (C13) |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:40 (C4) 19:31 | 07:50 18:12 | 07:57 16:04 | 14:04 (C13) 14:44 (C13) |
| 18 | 04:51 21:52 | 05:49 20:49 | 06:39 (C4) 19:29 | 07:52 18:09 | 07:59 16:02 | 14:04 (C13) 14:44 (C13) |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:38 (C4) 19:26 | 07:54 18:07 | 08:01 16:01 | 14:05 (C13) 14:45 (C13) |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:37 (C4) 19:23 | 07:57 18:04 | 08:03 15:59 | 14:05 (C13) 14:44 (C13) |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:37 (C4) 19:20 | 07:59 18:02 | 08:05 15:58 | 14:05 (C13) 14:44 (C13) |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:36 (C4) 19:18 | 08:01 17:59 | 08:07 15:56 | 14:07 (C13) 14:45 (C13) |
| 23 | 04:59 21:45 | 05:59 20:37 | 06:36 (C4) 19:15 | 08:03 17:57 | 08:09 15:55 | 14:07 (C13) 14:44 (C13) |
| 24 | 05:01 21:43 | 06:01 20:35 | 06:36 (C4) 19:12 | 08:05 17:55 | 08:11 15:53 | 14:08 (C13) 14:44 (C13) |
| 25 | 05:03 21:41 | 06:03 20:32 | 06:36 (C4) 19:10 | 07:07 16:52 | 08:13 15:52 | 14:08 (C13) 14:44 (C13) |
| 26 | 05:04 21:39 | 06:05 20:29 | 06:35 (C4) 19:07 | 07:09 16:50 | 08:15 15:51 | 14:09 (C13) 14:43 (C13) |
| 27 | 05:06 21:37 | 06:07 20:27 | 06:37 (C4) 19:04 | 07:12 16:47 | 08:17 15:49 | 14:11 (C13) 14:44 (C13) |
| 28 | 05:08 21:36 | 06:09 20:24 | 06:39 (C4) 19:02 | 07:14 16:45 | 08:19 15:48 | 14:11 (C13) 14:44 (C13) |
| 29 | 05:10 21:34 | 06:11 20:22 | 06:41 (C4) 18:59 | 07:16 16:43 | 08:21 15:47 | 14:12 (C13) 14:43 (C13) |
| 30 | 05:12 21:32 | 06:13 20:19 | 06:43 (C4) 18:56 | 07:18 16:40 | 08:22 15:46 | 14:13 (C13) 14:43 (C13) |
| 31 | 05:14 21:30 | 06:15 20:17 | 06:45 (C4) 18:54 | 07:20 16:38 | 08:24 15:45 | 14:14 (C13) 14:44 (C13) |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 295 | | 31 | 1084 | 692 |
| Sun reduction | | 0.50 | | 0.26 | 0.08 | 0.07 |
| Oper. time red. | | 0.98 | | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | 0.65 | | 0.66 | 0.66 | 0.66 |
| Total reduction | | 0.32 | | 0.17 | 0.05 | 0.05 |
| Total, real | | 94 | | 5 | 58 | 32 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kropini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (172)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:57 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:20 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:37 22:03 | 05:31 21:11 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:07 | 06:24 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:04 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:12 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kvieši - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (101)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:49 19:53 | 05:32 20:55 | 04:35 21:53 | 04:30 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:26 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:43 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:26 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:38 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:50 21:53 | 05:49 20:50 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:39 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:02 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Klavas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (81)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|------|-------------|----------|----|-------------|-------|----|-------------|-------|----|------------|-------|----|------------|-------|----|------------|
| 1 | 08:51 | | 09:30 (C12) | 08:15 | | 08:58 (C11) | 07:11 | | 07:51 (C10) | 06:49 | | | 05:32 | | 06:16 (C8) | 04:36 | | 06:17 (C8) |
| | 15:48 | 14 | 09:44 (C12) | 16:45 | 30 | 09:28 (C11) | 17:47 | 11 | 08:02 (C10) | 19:53 | | | 20:55 | 36 | 06:52 (C8) | 21:52 | 34 | 06:51 (C8) |
| 2 | 08:50 | | 09:29 (C12) | 08:13 | | 08:58 (C11) | 07:08 | | 07:47 (C10) | 06:46 | | | 05:30 | | 06:15 (C8) | 04:35 | | 06:18 (C8) |
| | 15:49 | 15 | 09:44 (C12) | 16:47 | 31 | 09:29 (C11) | 17:50 | 19 | 08:06 (C10) | 19:55 | | | 20:57 | 38 | 06:53 (C8) | 21:54 | 32 | 06:50 (C8) |
| 3 | 08:50 | | 09:29 (C12) | 08:11 | | 08:58 (C11) | 07:05 | | 07:45 (C10) | 06:43 | | | 05:28 | | 06:14 (C8) | 04:34 | | 06:18 (C8) |
| | 15:51 | 16 | 09:45 (C12) | 16:50 | 31 | 09:29 (C11) | 17:52 | 24 | 08:09 (C10) | 19:57 | | | 20:59 | 39 | 06:53 (C8) | 21:55 | 32 | 06:50 (C8) |
| 4 | 08:50 | | 09:28 (C12) | 08:09 | | 08:58 (C11) | 07:03 | | 07:42 (C10) | 06:41 | | | 05:26 | | 06:14 (C8) | 04:33 | | 06:19 (C8) |
| | 15:52 | 18 | 09:46 (C12) | 16:52 | 32 | 09:30 (C11) | 17:54 | 28 | 08:10 (C10) | 19:59 | | | 21:01 | 40 | 06:54 (C8) | 21:56 | 30 | 06:49 (C8) |
| 5 | 08:49 | | 09:27 (C12) | 08:07 | | 08:58 (C11) | 07:00 | | 07:40 (C10) | 06:38 | | | 05:23 | | 06:13 (C8) | 04:32 | | 06:20 (C8) |
| | 15:53 | 19 | 09:46 (C12) | 16:54 | 31 | 09:29 (C11) | 17:56 | 31 | 08:11 (C10) | 20:01 | | | 21:03 | 42 | 06:55 (C8) | 21:58 | 29 | 06:49 (C8) |
| 6 | 08:49 | | 09:27 (C12) | 08:05 | | 08:58 (C11) | 06:58 | | 07:39 (C10) | 06:35 | | | 05:21 | | 06:12 (C8) | 04:31 | | 06:21 (C8) |
| | 15:55 | 21 | 09:48 (C12) | 16:56 | 32 | 09:30 (C11) | 17:58 | 34 | 08:13 (C10) | 20:03 | | | 21:05 | 43 | 06:55 (C8) | 21:59 | 28 | 06:49 (C8) |
| 7 | 08:48 | | 09:27 (C12) | 08:02 | | 08:59 (C11) | 06:55 | | 07:38 (C10) | 06:33 | | | 05:19 | | 06:12 (C8) | 04:30 | | 06:21 (C8) |
| | 15:56 | 21 | 09:48 (C12) | 16:58 | 31 | 09:30 (C11) | 18:00 | 36 | 08:14 (C10) | 20:05 | | | 21:08 | 43 | 06:55 (C8) | 22:00 | 27 | 06:48 (C8) |
| 8 | 08:47 | | 09:27 (C12) | 08:00 | | 08:59 (C11) | 06:53 | | 07:36 (C10) | 06:30 | | | 05:17 | | 06:12 (C8) | 04:29 | | 06:22 (C8) |
| | 15:58 | 22 | 09:49 (C12) | 17:01 | 31 | 09:30 (C11) | 18:02 | 38 | 08:14 (C10) | 20:07 | | | 21:10 | 44 | 06:56 (C8) | 22:01 | 26 | 06:48 (C8) |
| 9 | 08:47 | | 09:28 (C12) | 07:58 | | 08:59 (C11) | 06:50 | | 07:36 (C10) | 06:27 | | | 05:15 | | 06:11 (C8) | 04:28 | | 06:22 (C8) |
| | 15:59 | 22 | 09:50 (C12) | 17:03 | 30 | 09:29 (C11) | 18:05 | 39 | 08:15 (C10) | 20:09 | | | 21:12 | 45 | 06:56 (C8) | 22:02 | 25 | 06:47 (C8) |
| 10 | 08:46 | | 09:28 (C12) | 07:56 | | 09:00 (C11) | 06:47 | | 07:35 (C10) | 06:25 | | | 05:12 | | 06:11 (C8) | 04:28 | | 06:24 (C8) |
| | 16:01 | 22 | 09:50 (C12) | 17:05 | 29 | 09:29 (C11) | 18:07 | 40 | 08:15 (C10) | 20:12 | | | 21:14 | 45 | 06:56 (C8) | 22:03 | 23 | 06:47 (C8) |
| 11 | 08:45 | | 09:28 (C12) | 07:54 | | 09:00 (C11) | 06:45 | | 07:34 (C10) | 06:22 | | | 05:10 | | 06:10 (C8) | 04:27 | | 06:24 (C8) |
| | 16:03 | 23 | 09:51 (C12) | 17:07 | 28 | 09:28 (C11) | 18:09 | 41 | 08:15 (C10) | 20:14 | | | 21:16 | 46 | 06:56 (C8) | 22:04 | 22 | 06:46 (C8) |
| 12 | 08:44 | | 09:28 (C12) | 07:52 | | 09:01 (C11) | 06:42 | | 07:33 (C10) | 06:20 | | | 05:08 | | 06:10 (C8) | 04:27 | | 06:25 (C8) |
| | 16:04 | 23 | 09:51 (C12) | 17:10 | 27 | 09:28 (C11) | 18:11 | 42 | 08:15 (C10) | 20:16 | | | 21:18 | 46 | 06:56 (C8) | 22:05 | 21 | 06:46 (C8) |
| 13 | 08:43 | | 09:28 (C12) | 07:49 | | 09:02 (C11) | 06:39 | | 07:33 (C10) | 06:17 | | | 05:06 | | 06:10 (C8) | 04:26 | | 06:26 (C8) |
| | 16:06 | 24 | 09:52 (C12) | 17:12 | 25 | 09:27 (C11) | 18:13 | 42 | 08:15 (C10) | 20:18 | | | 21:19 | 46 | 06:56 (C8) | 22:06 | 20 | 06:46 (C8) |
| 14 | 08:42 | | 09:29 (C12) | 07:47 | | 09:03 (C11) | 06:37 | | 07:33 (C10) | 06:14 | | | 05:04 | | 06:11 (C8) | 04:26 | | 06:26 (C8) |
| | 16:08 | 23 | 09:52 (C12) | 17:14 | 22 | 09:25 (C11) | 18:15 | 42 | 08:15 (C10) | 20:20 | | | 21:21 | 45 | 06:56 (C8) | 22:06 | 19 | 06:45 (C8) |
| 15 | 08:41 | | 09:29 (C12) | 07:45 | | 09:05 (C11) | 06:34 | | 07:32 (C10) | 06:12 | | | 05:02 | | 06:10 (C8) | 04:26 | | 06:26 (C8) |
| | 16:10 | 23 | 09:52 (C12) | 17:16 | 19 | 09:24 (C11) | 18:17 | 42 | 08:14 (C10) | 20:22 | | | 21:23 | 46 | 06:56 (C8) | 22:07 | 19 | 06:45 (C8) |
| 16 | 08:40 | | 09:29 (C12) | 07:42 | | 09:07 (C11) | 06:31 | | 07:33 (C10) | 06:09 | | | 05:00 | | 06:10 (C8) | 04:25 | | 06:27 (C8) |
| | 16:12 | 24 | 09:53 (C12) | 17:19 | 14 | 09:21 (C11) | 18:19 | 41 | 08:14 (C10) | 20:24 | | | 21:25 | 45 | 06:55 (C8) | 22:08 | 18 | 06:45 (C8) |
| 17 | 08:39 | | 09:29 (C12) | 07:40 | | 09:12 (C11) | 06:29 | | 07:32 (C10) | 06:07 | | | 04:59 | | 06:10 (C8) | 04:25 | | 06:28 (C8) |
| | 16:14 | 24 | 09:53 (C12) | 17:21 | 5 | 09:17 (C11) | 18:22 | 41 | 08:13 (C10) | 20:26 | | | 21:27 | 45 | 06:55 (C8) | 22:08 | 17 | 06:45 (C8) |
| 18 | 08:37 | | 09:30 (C12) | 07:38 | | | 06:26 | | 07:32 (C10) | 06:04 | | | 04:57 | | 06:11 (C8) | 04:25 | | 06:28 (C8) |
| | 16:16 | 24 | 09:54 (C12) | 17:23 | | | 18:24 | 40 | 08:12 (C10) | 20:28 | | | 21:29 | 44 | 06:55 (C8) | 22:09 | 17 | 06:45 (C8) |
| 19 | 08:36 | | 09:31 (C12) | 07:35 | | | 06:23 | | 07:33 (C10) | 06:02 | | | 04:55 | | 06:11 (C8) | 04:25 | | 06:29 (C8) |
| | 16:18 | 22 | 09:53 (C12) | 17:25 | | | 18:26 | 39 | 08:12 (C10) | 20:30 | | | 21:31 | 44 | 06:55 (C8) | 22:09 | 16 | 06:45 (C8) |
| 20 | 08:35 | | 09:31 (C12) | 07:33 | | | 06:21 | | 07:33 (C10) | 05:59 | | | 04:53 | | 06:11 (C8) | 04:25 | | 06:29 (C8) |
| | 16:20 | 22 | 09:53 (C12) | 17:28 | | | 18:28 | 41 | 18:00 (C13) | 20:32 | | | 21:33 | 44 | 06:55 (C8) | 22:10 | 16 | 06:45 (C8) |
| 21 | 08:33 | | 09:32 (C12) | 07:31 | | | 06:18 | | 07:34 (C10) | 05:57 | | | 04:52 | | 06:11 (C8) | 04:25 | | 06:29 (C8) |
| | 16:22 | 22 | 09:54 (C12) | 17:30 | | | 18:30 | 43 | 18:02 (C13) | 20:34 | | | 21:35 | 43 | 06:54 (C8) | 22:10 | 16 | 06:45 (C8) |
| 22 | 08:32 | | 09:33 (C12) | 07:28 | | | 06:15 | | 07:34 (C10) | 05:54 | | | 04:50 | | 06:12 (C8) | 04:25 | | 06:30 (C8) |
| | 16:24 | 20 | 09:53 (C12) | 17:32 | | | 18:32 | 44 | 18:03 (C13) | 20:37 | | | 21:36 | 43 | 06:55 (C8) | 22:10 | 16 | 06:46 (C8) |
| 23 | 08:30 | | 09:08 (C11) | 07:26 | | | 06:13 | | 07:36 (C10) | 05:52 | | | 04:48 | | 06:12 (C8) | 04:26 | | 06:30 (C8) |
| | 16:26 | 25 | 09:53 (C12) | 17:34 | | | 18:34 | 44 | 18:06 (C13) | 20:39 | | | 21:38 | 42 | 06:54 (C8) | 22:10 | 16 | 06:46 (C8) |
| 24 | 08:29 | | 09:05 (C11) | 07:23 | | | 06:10 | | 07:37 (C10) | 05:49 | | | 04:47 | | 06:12 (C8) | 04:26 | | 06:29 (C8) |
| | 16:28 | 31 | 09:52 (C12) | 17:36 | | | 18:36 | 44 | 18:08 (C13) | 20:41 | | | 21:40 | 42 | 06:54 (C8) | 22:10 | 17 | 06:46 (C8) |
| 25 | 08:27 | | 09:03 (C11) | 07:21 | | | 06:07 | | 07:38 (C10) | 05:47 | | 06:30 (C8) | 04:45 | | 06:13 (C8) | 04:26 | | 06:30 (C8) |
| | 16:30 | 32 | 09:51 (C12) | 17:39 | | | 18:38 | 42 | 18:09 (C13) | 20:43 | 11 | 06:41 (C8) | 21:41 | 41 | 06:54 (C8) | 22:10 | 17 | 06:47 (C8) |
| 26 | 08:25 | | 09:03 (C11) | 07:18 | | | 06:05 | | 07:41 (C10) | 05:44 | | 06:25 (C8) | 04:44 | | 06:13 (C8) | 04:27 | | 06:29 (C8) |
| | 16:32 | 31 | 09:50 (C12) | 17:41 | | | 18:40 | 36 | 18:09 (C13) | 20:45 | 19 | 06:44 (C8) | 21:43 | 40 | 06:53 (C8) | 22:10 | 18 | 06:47 (C8) |
| 27 | 08:24 | | 09:02 (C11) | 07:16 | | | 06:02 | | 07:46 (C10) | 05:42 | | 06:23 (C8) | 04:42 | | 06:14 (C8) | 04:27 | | 06:30 (C8) |
| | 16:34 | 29 | 09:48 (C12) | 17:43 | | | 18:42 | 24 | 18:08 (C13) | 20:47 | 23 | 06:46 (C8) | 21:45 | 38 | 06:52 (C8) | 22:10 | 18 | 06:48 (C8) |
| 28 | 08:22 | | 09:01 (C11) | 07:13 | | | 05:59 | | 17:50 (C13) | 05:39 | | 06:21 (C8) | 04:41 | | 06:14 (C8) | 04:28 | | 06:29 (C8) |
| | 16:36 | 24 | 09:25 (C11) | 17:45 | | | 18:45 | 17 | 18:07 (C13) | 20:49 | 27 | 06:48 (C8) | 21:46 | 38 | 06:52 (C8) | 22:10 | 19 | 06:48 (C8) |
| 29 | 08:20 | | 09:00 (C11) | | | | 06:57 | | 18:51 (C13) | 05:37 | | 06:19 (C8) | 04:39 | | 06:15 (C8) | 04:28 | | 06:29 (C8) |
| | 16:38 | 26 | 09:26 (C11) | | | | 19:47 | 15 | 19:06 (C13) | 20:51 | 30 | 06:49 (C8) | 21:48 | 37 | 06:52 (C8) | 22:10 | 20 | 06:49 (C8) |
| 30 | 08:18 | | 08:59 (C11) | | | | 06:54 | | 18:52 (C13) | 05:35 | | 06:17 (C8) | 04:38 | | 06:16 (C8) | 04:29 | | 06:29 (C8) |
| | 16:41 | 27 | 09:26 (C11) | | | | 19:49 | 12 | 19:04 (C13) | 20:53 | 33 | 06:50 (C8) | 21:49 | 36 | 06:52 (C8) | 22:09 | 21 | 06:50 (C8) |
| 31 | 08:16 | | 08:59 (C11) | | | | 06:51 | | 18:55 (C13) | | | | 04:37 | | 06:16 (C8) | | | |
| | 16:43 | 28 | 09:27 (C11) | | | | 19:51 | 6 | 19:01 (C13) | | | | 21:51 | 35 | 06:51 (C8) | | | |
| Potential sun hours | | 235 | | 266 | | | 366 | | 426 | | | | 508 | | | 529 | | |
| Total, worst case | | 717 | | 448 | | | 1038 | | 143 | | | | 1301 | | | 649 | | |
| Sun reduction | | 0.13 | | 0.20 | | | 0.41 | | 0.50 | | | | 0.57 | | | 0.56 | | |
| Oper. time red. | | 0.98 | | 0.98 | | | 0.98 | | 0.98 | | | | 0.98 | | | 0.98 | | |
| Wind dir. red. | | 0.60 | | 0.59 | | | 0.63 | | 0.66 | | | | 0.66 | | | 0.66 | | |
| Total reduction | | 0.08 | | 0.11 | | | 0.25 | | 0.31 | | | | 0.36 | | | 0.35 | | |
| Total, real | | 55 | | 51 | | | 258 | | 45 | | | | 466 | | | 228 | | |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Klavas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (81)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | August | | September | | October | | November | | December | | | | | | | |
|---------------------|-------|------------|------------|------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----|-------------|
| 1 | 04:30 | 06:28 (C8) | 05:16 | 06:20 (C8) | 06:17 | 07:17 | 08:13 (C10) | 07:22 | 08:29 (C11) | 08:24 | 09:09 (C12) | | | | | | | |
| 2 | 22:09 | 22 | 06:50 (C8) | 21:28 | 46 | 07:06 (C8) | 20:14 | 18:53 | 42 | 08:55 (C10) | 16:36 | 30 | 08:59 (C11) | 15:45 | 23 | 09:32 (C12) | | |
| 3 | 04:31 | 06:28 (C8) | 05:17 | 06:21 (C8) | 06:19 | 07:19 | 08:13 (C10) | 07:25 | 08:28 (C11) | 08:26 | 09:10 (C12) | | | | | | | |
| 4 | 22:08 | 23 | 06:51 (C8) | 21:26 | 45 | 07:06 (C8) | 20:11 | 18:51 | 41 | 08:54 (C10) | 16:34 | 31 | 08:59 (C11) | 15:44 | 23 | 09:33 (C12) | | |
| 5 | 04:32 | 06:28 (C8) | 05:19 | 06:21 (C8) | 06:21 | 07:21 | 08:13 (C10) | 07:27 | 08:28 (C11) | 08:27 | 09:11 (C12) | | | | | | | |
| 6 | 22:08 | 24 | 06:52 (C8) | 21:24 | 45 | 07:06 (C8) | 20:09 | 18:48 | 40 | 08:53 (C10) | 16:31 | 31 | 08:59 (C11) | 15:43 | 22 | 09:33 (C12) | | |
| 7 | 04:32 | 06:28 (C8) | 05:21 | 06:22 (C8) | 06:23 | 07:23 | 08:13 (C10) | 07:29 | 08:28 (C11) | 08:29 | 09:12 (C12) | | | | | | | |
| 8 | 22:07 | 25 | 06:53 (C8) | 21:21 | 44 | 07:06 (C8) | 20:06 | 18:45 | 39 | 08:52 (C10) | 16:29 | 32 | 09:00 (C11) | 15:42 | 21 | 09:33 (C12) | | |
| 9 | 04:33 | 06:27 (C8) | 05:23 | 06:21 (C8) | 06:25 | 07:25 | 08:13 (C10) | 07:31 | 08:28 (C11) | 08:31 | 09:12 (C12) | | | | | | | |
| 10 | 22:06 | 27 | 06:54 (C8) | 21:19 | 44 | 07:05 (C8) | 20:03 | 18:43 | 38 | 08:51 (C10) | 16:27 | 31 | 08:59 (C11) | 15:41 | 22 | 09:34 (C12) | | |
| 11 | 04:35 | 06:27 (C8) | 05:25 | 06:21 (C8) | 06:27 | 07:27 | 08:13 (C10) | 07:33 | 08:28 (C11) | 08:32 | 09:13 (C12) | | | | | | | |
| 12 | 22:06 | 28 | 06:55 (C8) | 21:17 | 44 | 07:05 (C8) | 20:01 | 18:40 | 37 | 08:50 (C10) | 16:25 | 32 | 09:00 (C11) | 15:41 | 21 | 09:34 (C12) | | |
| 13 | 04:36 | 06:27 (C8) | 05:27 | 06:22 (C8) | 06:29 | 07:29 | 08:14 (C10) | 07:35 | 08:28 (C11) | 08:34 | 09:14 (C12) | | | | | | | |
| 14 | 22:05 | 29 | 06:56 (C8) | 21:15 | 42 | 07:04 (C8) | 19:58 | 18:38 | 35 | 08:49 (C10) | 16:23 | 32 | 09:00 (C11) | 15:40 | 19 | 09:33 (C12) | | |
| 15 | 04:37 | 06:26 (C8) | 05:29 | 06:23 (C8) | 06:31 | 07:31 | 08:15 (C10) | 07:38 | 08:28 (C11) | 08:35 | 09:16 (C12) | | | | | | | |
| 16 | 22:04 | 30 | 06:56 (C8) | 21:13 | 41 | 07:04 (C8) | 19:55 | 18:35 | 32 | 08:47 (C10) | 16:21 | 31 | 08:59 (C11) | 15:40 | 18 | 09:34 (C12) | | |
| 17 | 04:38 | 06:26 (C8) | 05:31 | 06:23 (C8) | 06:33 | 07:33 | 08:16 (C10) | 07:40 | 08:29 (C11) | 08:36 | 09:17 (C12) | | | | | | | |
| 18 | 22:03 | 31 | 06:57 (C8) | 21:11 | 40 | 07:03 (C8) | 19:53 | 18:32 | 29 | 08:45 (C10) | 16:19 | 30 | 08:59 (C11) | 15:39 | 16 | 09:33 (C12) | | |
| 19 | 04:39 | 06:25 (C8) | 05:33 | 06:23 (C8) | 06:35 | 07:36 | 08:18 (C10) | 07:42 | 08:29 (C11) | 08:38 | 09:19 (C12) | | | | | | | |
| 20 | 22:02 | 32 | 06:57 (C8) | 21:08 | 39 | 07:02 (C8) | 19:50 | 18:30 | 26 | 08:44 (C10) | 16:17 | 30 | 08:59 (C11) | 15:39 | 15 | 09:34 (C12) | | |
| 21 | 04:41 | 06:25 (C8) | 05:35 | 06:24 (C8) | 06:37 | 07:38 | 08:20 (C10) | 07:44 | 08:30 (C11) | 08:39 | 09:20 (C12) | | | | | | | |
| 22 | 22:01 | 33 | 06:58 (C8) | 21:06 | 37 | 07:01 (C8) | 19:47 | 18:27 | 22 | 08:42 (C10) | 16:15 | 29 | 08:59 (C11) | 15:38 | 14 | 09:34 (C12) | | |
| 23 | 04:42 | 06:24 (C8) | 05:37 | 06:25 (C8) | 06:39 | 07:40 | 18:48 (C13) | 07:46 | 08:22 (C10) | 07:46 | 08:31 (C11) | 08:40 | 09:21 (C12) | | | | | |
| 24 | 22:00 | 34 | 06:58 (C8) | 21:04 | 35 | 07:00 (C8) | 19:45 | 4 | 18:52 (C13) | 18:24 | 16 | 08:38 (C10) | 16:13 | 27 | 08:58 (C11) | 15:38 | 13 | 09:34 (C12) |
| 25 | 04:43 | 06:25 (C8) | 05:39 | 06:26 (C8) | 06:41 | 07:42 | 18:44 (C13) | 07:42 | 08:28 (C10) | 07:48 | 08:32 (C11) | 08:41 | 09:23 (C12) | | | | | |
| 26 | 21:59 | 35 | 07:00 (C8) | 21:01 | 33 | 06:59 (C8) | 19:42 | 11 | 18:55 (C13) | 18:22 | 4 | 08:32 (C10) | 16:11 | 26 | 08:58 (C11) | 15:38 | 12 | 09:35 (C12) |
| 27 | 04:45 | 06:24 (C8) | 05:41 | 06:27 (C8) | 06:43 | 07:44 | 18:42 (C13) | 07:44 | 07:51 | 08:33 (C11) | 08:42 | 09:24 (C12) | | | | | | |
| 28 | 21:58 | 36 | 07:00 (C8) | 20:59 | 30 | 06:57 (C8) | 19:39 | 15 | 18:57 (C13) | 18:19 | 16:09 | 24 | 08:57 (C11) | 15:38 | 10 | 09:34 (C12) | | |
| 29 | 04:46 | 06:23 (C8) | 05:43 | 06:29 (C8) | 06:45 | 07:46 | 18:41 (C13) | 07:46 | 07:53 | 08:34 (C11) | 08:43 | 09:25 (C12) | | | | | | |
| 30 | 21:56 | 38 | 07:01 (C8) | 20:57 | 27 | 06:56 (C8) | 19:37 | 16 | 18:57 (C13) | 18:17 | 16:07 | 29 | 09:20 (C12) | 15:38 | 10 | 09:35 (C12) | | |
| 31 | 04:48 | 06:24 (C8) | 05:45 | 06:31 (C8) | 06:47 | 07:48 | 18:40 (C13) | 07:48 | 07:55 | 08:36 (C11) | 08:44 | 09:26 (C12) | | | | | | |
| 32 | 21:55 | 38 | 07:02 (C8) | 20:54 | 22 | 06:53 (C8) | 19:34 | 18 | 18:58 (C13) | 18:14 | 16:06 | 31 | 09:23 (C12) | 15:38 | 9 | 09:35 (C12) | | |
| 33 | 04:49 | 06:23 (C8) | 05:47 | 06:33 (C8) | 06:49 | 07:50 | 08:30 (C10) | 07:50 | 07:57 | 08:37 (C11) | 08:45 | 09:27 (C12) | | | | | | |
| 34 | 21:54 | 39 | 07:02 (C8) | 20:52 | 17 | 06:50 (C8) | 19:31 | 35 | 18:58 (C13) | 18:12 | 16:04 | 32 | 09:25 (C12) | 15:38 | 8 | 09:35 (C12) | | |
| 35 | 04:51 | 06:23 (C8) | 05:49 | 06:37 (C8) | 06:51 | 07:52 | 08:26 (C10) | 07:52 | 07:59 | 08:39 (C11) | 08:46 | 09:28 (C12) | | | | | | |
| 36 | 21:52 | 40 | 07:03 (C8) | 20:49 | 8 | 06:45 (C8) | 19:28 | 42 | 18:57 (C13) | 18:09 | 16:02 | 30 | 09:26 (C12) | 15:38 | 7 | 09:35 (C12) | | |
| 37 | 04:52 | 06:22 (C8) | 05:51 | 06:53 | 07:54 | 08:01 | 08:43 (C11) | 08:47 | 08:01 | 08:43 (C11) | 08:47 | 09:28 (C12) | | | | | | |
| 38 | 21:51 | 41 | 07:03 (C8) | 20:47 | 19:26 | 44 | 18:55 (C13) | 18:07 | 16:01 | 25 | 09:28 (C12) | 15:38 | 7 | 09:35 (C12) | | | | |
| 39 | 04:54 | 06:23 (C8) | 05:53 | 06:55 | 07:56 | 08:03 | 09:08 (C12) | 08:48 | 08:03 | 09:08 (C12) | 08:48 | 09:29 (C12) | | | | | | |
| 40 | 21:49 | 41 | 07:04 (C8) | 20:44 | 19:23 | 44 | 18:52 (C13) | 18:04 | 15:59 | 20 | 09:28 (C12) | 15:38 | 7 | 09:36 (C12) | | | | |
| 41 | 04:56 | 06:22 (C8) | 05:55 | 06:57 | 07:59 | 08:05 | 09:07 (C12) | 08:48 | 08:05 | 09:07 (C12) | 08:48 | 09:29 (C12) | | | | | | |
| 42 | 21:48 | 42 | 07:04 (C8) | 20:42 | 19:20 | 44 | 18:50 (C13) | 18:02 | 15:57 | 22 | 09:29 (C12) | 15:39 | 7 | 09:36 (C12) | | | | |
| 43 | 04:57 | 06:22 (C8) | 05:57 | 06:59 | 08:01 | 08:07 | 09:07 (C12) | 08:49 | 08:07 | 09:07 (C12) | 08:49 | 09:30 (C12) | | | | | | |
| 44 | 21:46 | 43 | 07:05 (C8) | 20:39 | 19:18 | 44 | 18:47 (C13) | 17:59 | 15:56 | 22 | 09:29 (C12) | 15:39 | 7 | 09:37 (C12) | | | | |
| 45 | 04:59 | 06:21 (C8) | 05:59 | 07:01 | 08:17 (C10) | 08:03 | 08:09 | 09:08 (C12) | 08:09 | 09:08 (C12) | 08:49 | 09:30 (C12) | | | | | | |
| 46 | 21:44 | 44 | 07:05 (C8) | 20:37 | 19:15 | 41 | 18:44 (C13) | 17:57 | 15:55 | 22 | 09:30 (C12) | 15:40 | 7 | 09:37 (C12) | | | | |
| 47 | 05:01 | 06:21 (C8) | 06:01 | 07:03 | 08:16 (C10) | 08:05 | 08:11 | 09:07 (C12) | 08:11 | 09:07 (C12) | 08:50 | 09:31 (C12) | | | | | | |
| 48 | 21:43 | 45 | 07:06 (C8) | 20:34 | 19:12 | 38 | 08:54 (C10) | 17:54 | 15:53 | 24 | 09:31 (C12) | 15:40 | 7 | 09:38 (C12) | | | | |
| 49 | 05:03 | 06:21 (C8) | 06:03 | 07:05 | 08:15 (C10) | 07:07 | 08:40 (C11) | 08:13 | 08:13 | 09:07 (C12) | 08:50 | 09:31 (C12) | | | | | | |
| 50 | 21:41 | 44 | 07:05 (C8) | 20:32 | 19:10 | 40 | 08:55 (C10) | 16:52 | 8 | 08:48 (C11) | 15:52 | 24 | 09:31 (C12) | 15:41 | 7 | 09:38 (C12) | | |
| 51 | 05:04 | 06:21 (C8) | 06:05 | 07:07 | 08:14 (C10) | 07:09 | 08:37 (C11) | 08:15 | 08:15 | 09:07 (C12) | 08:50 | 09:31 (C12) | | | | | | |
| 52 | 21:39 | 45 | 07:06 (C8) | 20:29 | 19:07 | 41 | 08:55 (C10) | 16:50 | 15 | 08:52 (C11) | 15:51 | 24 | 09:31 (C12) | 15:42 | 8 | 09:39 (C12) | | |
| 53 | 05:06 | 06:21 (C8) | 06:07 | 07:09 | 08:14 (C10) | 07:12 | 08:34 (C11) | 08:17 | 08:17 | 09:08 (C12) | 08:51 | 09:31 (C12) | | | | | | |
| 54 | 21:37 | 45 | 07:06 (C8) | 20:27 | 19:04 | 41 | 08:55 (C10) | 16:47 | 20 | 08:54 (C11) | 15:49 | 23 | 09:31 (C12) | 15:43 | 8 | 09:39 (C12) | | |
| 55 | 05:08 | 06:20 (C8) | 06:09 | 07:11 | 08:13 (C10) | 07:14 | 08:32 (C11) | 08:19 | 08:19 | 09:08 (C12) | 08:51 | 09:31 (C12) | | | | | | |
| 56 | 21:35 | 46 | 07:06 (C8) | 20:24 | 19:01 | 42 | 08:55 (C10) | 16:45 | 23 | 08:55 (C11) | 15:48 | 24 | 09:32 (C12) | 15:44 | 9 | 09:40 (C12) | | |
| 57 | 05:10 | 06:21 (C8) | 06:11 | 07:13 | 08:12 (C10) | 07:16 | 08:32 (C11) | 08:20 | 08:20 | 09:09 (C12) | 08:51 | 09:31 (C12) | | | | | | |
| 58 | 21:34 | 45 | 07:06 (C8) | 20:22 | 18:59 | 43 | 08:55 (C10) | 16:43 | 25 | 08:57 (C11) | 15:47 | 24 | 09:33 (C12) | 15:44 | 10 | 09:41 (C12) | | |
| 59 | 05:12 | 06:21 (C8) | 06:13 | 07:15 | 08:13 (C10) | 07:18 | 08:30 (C11) | 08:22 | 08:22 | 09:10 (C12) | 08:51 | 09:31 (C12) | | | | | | |
| 60 | 21:32 | 46 | 07:07 (C8) | 20:19 | 18:56 | 42 | 08:55 (C10) | 16:40 | 27 | 08:57 (C11) | 15:46 | 23 | 09:33 (C12) | 15:45 | 11 | 09:42 (C12) | | |
| 61 | 05:14 | 06:20 (C8) | 06:15 | 07:17 | 08:14 (C10) | 07:20 | 08:29 (C11) | 08:51 | 08:29 | 09:11 (C12) | 08:51 | 09:30 (C12) | | | | | | |
| 62 | 21:30 | 46 | 07:06 (C8) | 20:16 | 16:38 | 29 | 08:58 (C11) | 15:47 | 12 | 09:42 (C12) | | | | | | | | |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 | | | | | | | | | | | | |
| Total, worst case | 1137 | 639 | 645 | 548 | 815 | 390 | | | | | | | | | | | | |
| Sun reduction | 0.49 | 0.50 | 0.43 | 0.26 | 0.08 | 0.07 | | | | | | | | | | | | |
| Oper. time red. | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | | | | | | | | | | | | |
| Wind dir. red. | 0.66 | 0.66 | 0.63 | 0.62 | 0.59 | 0.60 | | | | | | | | | | | | |
| Total reduction | 0.31 | 0.31 | 0.26 | 0.15 | 0.05 | 0.04 | | | | | | | | | | | | |
| Total, real | 353 | 201 | 168 | 84 | 38 | 16 | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Klavini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (149)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:58 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:29 | 07:52 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kukas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (217)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:49 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:18 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:05 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:13 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:26 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Laides - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (135)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|-------|-------------|-------------|-------------|-------|-------------|-------|-------|-------------|-------------|-------|-------|--|--|------|--|--|
| 1 | 08:51 | 09:45 (C14) | 08:15 | 08:49 (C15) | 07:11 | 06:49 | | | 05:33 | 04:36 | | | | | | | |
| | 15:48 | 24 | 10:09 (C14) | 16:45 | 62 | 10:26 (C14) | 17:48 | 19:53 | | | | 20:55 | | | | | |
| 2 | 08:50 | 09:46 (C14) | 08:13 | 08:49 (C15) | 07:08 | 06:46 | | | 07:19 (C13) | 05:30 | 04:35 | | | | | | |
| | 15:49 | 25 | 10:11 (C14) | 16:48 | 61 | 10:26 (C14) | 17:50 | 19:55 | 11 | 07:30 (C13) | 20:57 | | | | | | |
| 3 | 08:50 | 09:45 (C14) | 08:11 | 08:49 (C15) | 07:06 | 06:43 | | | 07:16 (C13) | 05:28 | 04:34 | | | | | | |
| | 15:51 | 26 | 10:11 (C14) | 16:50 | 61 | 10:26 (C14) | 17:52 | 19:57 | 18 | 07:34 (C13) | 21:00 | | | | | | |
| 4 | 08:50 | 09:45 (C14) | 08:09 | 08:49 (C15) | 07:03 | 06:41 | | | 07:13 (C13) | 05:26 | 04:33 | | | | | | |
| | 15:52 | 27 | 10:12 (C14) | 16:52 | 59 | 10:25 (C14) | 17:54 | 19:59 | 23 | 07:36 (C13) | 21:02 | | | | | | |
| 5 | 08:49 | 09:46 (C14) | 08:07 | 08:50 (C15) | 07:01 | 06:38 | | | 07:10 (C13) | 05:23 | 04:32 | | | | | | |
| | 15:53 | 28 | 10:14 (C14) | 16:54 | 56 | 10:25 (C14) | 17:56 | 20:01 | 27 | 07:37 (C13) | 21:04 | | | | | | |
| 6 | 08:49 | 09:45 (C14) | 08:05 | 08:50 (C15) | 06:58 | 06:35 | | | 07:09 (C13) | 05:21 | 04:31 | | | | | | |
| | 15:55 | 30 | 10:15 (C14) | 16:56 | 53 | 10:23 (C14) | 17:58 | 20:03 | 30 | 07:39 (C13) | 21:06 | | | | | | |
| 7 | 08:48 | 09:45 (C14) | 08:03 | 08:50 (C15) | 06:55 | 06:33 | | | 07:07 (C13) | 05:19 | 04:30 | | | | | | |
| | 15:56 | 30 | 10:15 (C14) | 16:59 | 50 | 10:22 (C14) | 18:01 | 20:05 | 32 | 07:39 (C13) | 21:08 | | | | | | |
| 8 | 08:48 | 09:45 (C14) | 08:01 | 08:51 (C15) | 06:53 | 06:30 | | | 07:07 (C13) | 05:17 | 04:29 | | | | | | |
| | 15:58 | 31 | 10:16 (C14) | 17:01 | 45 | 10:20 (C14) | 18:03 | 20:08 | 33 | 07:40 (C13) | 21:10 | | | | | | |
| 9 | 08:47 | 09:45 (C14) | 07:58 | 08:52 (C15) | 06:50 | 06:28 | | | 07:05 (C13) | 05:15 | 04:29 | | | | | | |
| | 16:00 | 32 | 10:17 (C14) | 17:03 | 38 | 10:17 (C14) | 18:05 | 20:10 | 35 | 07:40 (C13) | 21:12 | | | | | | |
| 10 | 08:46 | 09:45 (C14) | 07:56 | 08:53 (C15) | 06:47 | 06:25 | | | 07:04 (C13) | 05:13 | 04:28 | | | | | | |
| | 16:01 | 33 | 10:18 (C14) | 17:05 | 30 | 10:14 (C14) | 18:07 | 20:12 | 36 | 07:40 (C13) | 21:14 | | | | | | |
| 11 | 08:45 | 09:45 (C14) | 07:54 | 08:55 (C15) | 06:45 | 06:22 | | | 07:04 (C13) | 05:11 | 04:27 | | | | | | |
| | 16:03 | 34 | 10:19 (C14) | 17:08 | 15 | 09:10 (C15) | 18:09 | 20:14 | 37 | 07:41 (C13) | 21:16 | | | | | | |
| 12 | 08:44 | 09:44 (C14) | 07:52 | 08:56 (C15) | 06:42 | 06:20 | | | 07:03 (C13) | 05:09 | 04:27 | | | | | | |
| | 16:05 | 35 | 10:19 (C14) | 17:10 | 11 | 09:07 (C15) | 18:11 | 20:16 | 37 | 07:40 (C13) | 21:18 | | | | | | |
| 13 | 08:43 | 09:44 (C14) | 07:50 | | 06:40 | 06:17 | | | 07:03 (C13) | 05:07 | 04:26 | | | | | | |
| | 16:06 | 36 | 10:20 (C14) | 17:12 | | 18:13 | 20:18 | 38 | 07:41 (C13) | 21:20 | 22:06 | | | | | | |
| 14 | 08:42 | 09:45 (C14) | 07:47 | | 06:37 | 06:15 | | | 07:02 (C13) | 05:05 | 04:26 | | | | | | |
| | 16:08 | 36 | 10:21 (C14) | 17:14 | | 18:15 | 20:20 | 38 | 07:40 (C13) | 21:22 | 22:07 | | | | | | |
| 15 | 08:41 | 09:44 (C14) | 07:45 | | 06:34 | 06:12 | | | 07:02 (C13) | 05:03 | 04:26 | | | | | | |
| | 16:10 | 38 | 10:22 (C14) | 17:17 | | 18:18 | 20:22 | 38 | 07:40 (C13) | 21:24 | 22:07 | | | | | | |
| 16 | 08:40 | 09:44 (C14) | 07:43 | | 06:32 | 06:09 | | | 07:01 (C13) | 05:01 | 04:26 | | | | | | |
| | 16:12 | 39 | 10:23 (C14) | 17:19 | | 18:20 | 20:24 | 38 | 07:39 (C13) | 21:25 | 22:08 | | | | | | |
| 17 | 08:39 | 09:44 (C14) | 07:40 | | 06:29 | 06:07 | | | 07:02 (C13) | 04:59 | 04:25 | | | | | | |
| | 16:14 | 39 | 10:23 (C14) | 17:21 | | 18:22 | 20:26 | 37 | 07:39 (C13) | 21:27 | 22:08 | | | | | | |
| 18 | 08:37 | 09:45 (C14) | 07:38 | | 06:26 | 06:04 | | | 07:01 (C13) | 04:57 | 04:25 | | | | | | |
| | 16:16 | 39 | 10:24 (C14) | 17:23 | | 18:24 | 20:28 | 37 | 07:38 (C13) | 21:29 | 22:09 | | | | | | |
| 19 | 08:36 | 09:44 (C14) | 07:36 | | 06:24 | 06:02 | | | 07:02 (C13) | 04:55 | 04:25 | | | | | | |
| | 16:18 | 40 | 10:24 (C14) | 17:26 | | 18:26 | 20:30 | 36 | 07:38 (C13) | 21:31 | 22:09 | | | | | | |
| 20 | 08:35 | 09:45 (C14) | 07:33 | | 06:21 | 05:59 | | | 07:02 (C13) | 04:53 | 04:25 | | | | | | |
| | 16:20 | 41 | 10:26 (C14) | 17:28 | | 18:28 | 20:33 | 34 | 07:36 (C13) | 21:33 | 22:10 | | | | | | |
| 21 | 08:33 | 09:45 (C14) | 07:31 | | 06:18 | 05:57 | | | 07:03 (C13) | 04:52 | 04:25 | | | | | | |
| | 16:22 | 41 | 10:26 (C14) | 17:30 | | 18:30 | 20:35 | 33 | 07:36 (C13) | 21:35 | 22:10 | | | | | | |
| 22 | 08:32 | 09:45 (C14) | 07:28 | | 06:16 | 05:54 | | | 07:04 (C13) | 04:50 | 04:26 | | | | | | |
| | 16:24 | 41 | 10:26 (C14) | 17:32 | | 18:32 | 20:37 | 31 | 07:35 (C13) | 21:37 | 22:10 | | | | | | |
| 23 | 08:30 | 09:45 (C14) | 07:26 | | 06:13 | 05:52 | | | 07:04 (C13) | 04:48 | 04:26 | | | | | | |
| | 16:26 | 41 | 10:26 (C14) | 17:34 | | 18:34 | 20:39 | 29 | 07:33 (C13) | 21:38 | 22:10 | | | | | | |
| 24 | 08:29 | 09:46 (C14) | 07:23 | | 06:10 | 05:49 | | | 07:05 (C13) | 04:47 | 04:26 | | | | | | |
| | 16:28 | 41 | 10:27 (C14) | 17:37 | | 18:36 | 20:41 | 26 | 07:31 (C13) | 21:40 | 22:10 | | | | | | |
| 25 | 08:27 | 09:00 (C15) | 07:21 | | 06:08 | 05:47 | | | 07:07 (C13) | 04:45 | 04:26 | | | | | | |
| | 16:30 | 46 | 10:27 (C14) | 17:39 | | 18:38 | 20:43 | 23 | 07:30 (C13) | 21:42 | 22:10 | | | | | | |
| 26 | 08:26 | 08:58 (C15) | 07:18 | | 06:05 | 05:44 | | | 07:08 (C13) | 04:44 | 04:27 | | | | | | |
| | 16:32 | 51 | 10:28 (C14) | 17:41 | | 18:41 | 20:45 | 19 | 07:27 (C13) | 21:43 | 22:10 | | | | | | |
| 27 | 08:24 | 08:56 (C15) | 07:16 | | 06:02 | 05:42 | | | 07:11 (C13) | 04:42 | 04:27 | | | | | | |
| | 16:34 | 55 | 10:28 (C14) | 17:43 | | 18:43 | 20:47 | 13 | 07:24 (C13) | 21:45 | 22:10 | | | | | | |
| 28 | 08:22 | 08:54 (C15) | 07:13 | | 05:59 | 05:40 | | | | 04:41 | 04:28 | | | | | | |
| | 16:37 | 57 | 10:28 (C14) | 17:45 | | 18:45 | 20:49 | | | 21:47 | 22:10 | | | | | | |
| 29 | 08:20 | 08:52 (C15) | | | 06:57 | 05:37 | | | | 04:40 | 04:29 | | | | | | |
| | 16:39 | 60 | 10:28 (C14) | | 19:47 | 20:51 | | | | 21:48 | 22:10 | | | | | | |
| 30 | 08:18 | 08:50 (C15) | | | 06:54 | 05:35 | | | | 04:38 | 04:29 | | | | | | |
| | 16:41 | 62 | 10:28 (C14) | | 19:49 | 20:53 | | | | 21:50 | 22:09 | | | | | | |
| 31 | 08:17 | 08:50 (C15) | | | 06:51 | | | | | 04:37 | | | | | | | |
| | 16:43 | 63 | 10:28 (C14) | | 19:51 | | | | | 21:51 | | | | | | | |
| Potential sun hours | 235 | | 266 | | 366 | 426 | | | 508 | 529 | | | | | | | |
| Total, worst case | 1221 | | 541 | | | 789 | | | | | | | | | | | |
| Sun reduction | 0.13 | | 0.20 | | | 0.50 | | | | | | | | | | | |
| Oper. time red. | 0.98 | | 0.98 | | | 0.98 | | | | | | | | | | | |
| Wind dir. red. | 0.61 | | 0.60 | | | 0.66 | | | | | | | | | | | |
| Total reduction | 0.08 | | 0.12 | | | 0.31 | | | | | | | | | | | |
| Total, real | 94 | | 63 | | | 247 | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Laides - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (135)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | | | October | | | November | | | December | | | |
|---------------------|----------------|----------------|-----------|-------------|----------------|---------|----------------------------|----------------|----------------|----------------|----|----------------------------|----------------|----|----------------------------|
| 1 | 04:30 22:09 | 05:16 21:28 | | | 06:17 20:14 | 37 | 07:03 (C13) 07:40 (C13) | 07:17 18:54 | | 07:23 16:36 | 32 | 08:22 (C15) 09:44 (C14) | 08:24 15:45 | 34 | 09:27 (C14) 10:01 (C14) |
| 2 | 04:31 22:08 | 05:18 21:26 | | | 06:19 20:11 | 36 | 07:03 (C13) 07:39 (C13) | 07:19 18:51 | | 07:25 16:34 | 40 | 08:21 (C15) 09:47 (C14) | 08:26 15:44 | 33 | 09:28 (C14) 10:01 (C14) |
| 3 | 04:32 22:08 | 05:20 21:24 | | | 06:21 20:09 | 35 | 07:03 (C13) 07:38 (C13) | 07:21 18:48 | | 07:27 16:32 | 46 | 08:21 (C15) 09:50 (C14) | 08:28 15:43 | 32 | 09:28 (C14) 10:00 (C14) |
| 4 | 04:33 22:07 | 05:21 21:22 | | | 06:23 20:06 | 33 | 07:04 (C13) 07:37 (C13) | 07:23 18:46 | | 07:29 16:29 | 51 | 08:20 (C15) 09:52 (C14) | 08:29 15:42 | 31 | 09:29 (C14) 10:00 (C14) |
| 5 | 04:34 22:07 | 05:23 21:20 | | | 06:25 20:03 | 32 | 07:04 (C13) 07:36 (C13) | 07:25 18:43 | | 07:31 16:27 | 54 | 08:19 (C15) 09:53 (C14) | 08:31 15:42 | 31 | 09:30 (C14) 10:01 (C14) |
| 6 | 04:35 22:06 | 05:25 21:17 | | | 06:27 20:01 | 30 | 07:04 (C13) 07:34 (C13) | 07:27 18:40 | | 07:33 16:25 | 56 | 08:20 (C15) 09:54 (C14) | 08:32 15:41 | 30 | 09:31 (C14) 10:01 (C14) |
| 7 | 04:36 22:05 | 05:27 21:15 | | | 06:29 19:58 | 27 | 07:05 (C13) 07:32 (C13) | 07:30 18:38 | | 07:36 16:23 | 59 | 08:19 (C15) 09:55 (C14) | 08:34 15:40 | 28 | 09:32 (C14) 10:00 (C14) |
| 8 | 04:37 22:04 | 05:29 21:13 | | | 06:31 19:55 | 23 | 07:07 (C13) 07:30 (C13) | 07:32 18:35 | | 07:38 16:21 | 60 | 08:20 (C15) 09:57 (C14) | 08:35 15:40 | 27 | 09:33 (C14) 10:00 (C14) |
| 9 | 04:38 22:03 | 05:31 21:11 | | | 06:33 19:53 | 18 | 07:09 (C13) 07:27 (C13) | 07:34 18:32 | | 07:40 16:19 | 61 | 08:20 (C15) 09:57 (C14) | 08:37 15:39 | 27 | 09:33 (C14) 10:00 (C14) |
| 10 | 04:39 22:02 | 05:33 21:08 | | | 06:35 19:50 | 12 | 07:12 (C13) 07:24 (C13) | 07:36 18:30 | | 07:42 16:17 | 61 | 08:20 (C15) 09:57 (C14) | 08:38 15:39 | 25 | 09:35 (C14) 10:00 (C14) |
| 11 | 04:41 22:01 | 05:35 21:06 | | | 06:37 19:47 | | | 07:38 18:27 | | 07:44 16:15 | 62 | 08:21 (C15) 09:58 (C14) | 08:39 15:39 | 24 | 09:36 (C14) 10:00 (C14) |
| 12 | 04:42 22:00 | 05:37 21:04 | | | 06:39 19:45 | | | 07:40 18:25 | | 07:46 16:13 | 62 | 08:21 (C15) 09:59 (C14) | 08:40 15:38 | 23 | 09:37 (C14) 10:00 (C14) |
| 13 | 04:43 21:59 | 05:39 21:02 | | | 06:41 19:42 | | | 07:42 18:22 | | 07:49 16:11 | 60 | 08:24 (C15) 10:00 (C14) | 08:42 15:38 | 22 | 09:38 (C14) 10:00 (C14) |
| 14 | 04:45 21:58 | 05:41 20:59 | | | 06:43 19:39 | | | 07:44 18:20 | | 07:51 16:09 | 57 | 08:26 (C15) 10:00 (C14) | 08:43 15:38 | 21 | 09:39 (C14) 10:00 (C14) |
| 15 | 04:46 21:57 | 05:43 20:57 | | 07:23 (C13) | 06:45 19:37 | | | 07:46 18:17 | | 07:53 16:08 | 55 | 08:28 (C15) 10:00 (C14) | 08:44 15:38 | 21 | 09:39 (C14) 10:00 (C14) |
| 16 | 04:48 21:55 | 05:45 20:54 | 5 | 07:28 (C13) | 06:47 19:34 | | | 07:48 18:14 | | 07:55 16:06 | 51 | 08:31 (C15) 10:01 (C14) | 08:45 15:38 | 20 | 09:40 (C14) 10:00 (C14) |
| 17 | 04:49 21:54 | 05:47 20:52 | 14 | 07:32 (C13) | 06:49 19:31 | | | 07:50 18:12 | | 07:57 16:04 | 46 | 08:33 (C15) 10:00 (C14) | 08:46 15:38 | 19 | 09:41 (C14) 10:00 (C14) |
| 18 | 04:51 21:52 | 05:49 20:50 | 20 | 07:35 (C13) | 06:51 19:29 | | | 07:52 18:09 | | 07:59 16:02 | 46 | 09:20 (C14) 10:01 (C14) | 08:46 15:38 | 18 | 09:42 (C14) 10:00 (C14) |
| 19 | 04:53 21:51 | 05:51 20:47 | 24 | 07:36 (C13) | 06:53 19:26 | | | 07:55 18:07 | | 08:01 16:01 | 41 | 09:20 (C14) 10:01 (C14) | 08:47 15:38 | 18 | 09:42 (C14) 10:00 (C14) |
| 20 | 04:54 21:49 | 05:53 20:45 | 26 | 07:37 (C13) | 06:55 19:23 | | | 07:57 18:04 | | 08:03 15:59 | 41 | 09:20 (C14) 10:01 (C14) | 08:48 15:39 | 18 | 09:43 (C14) 10:01 (C14) |
| 21 | 04:56 21:48 | 05:55 20:42 | 29 | 07:39 (C13) | 06:57 19:21 | | | 07:59 18:02 | | 08:05 15:58 | 41 | 09:20 (C14) 10:01 (C14) | 08:48 15:39 | 18 | 09:44 (C14) 10:01 (C14) |
| 22 | 04:58 21:46 | 05:57 20:40 | 32 | 07:40 (C13) | 06:59 19:18 | | | 08:01 18:00 | | 08:07 15:56 | 41 | 09:21 (C14) 10:02 (C14) | 08:49 15:40 | 17 | 09:44 (C14) 10:01 (C14) |
| 23 | 04:59 21:45 | 05:59 20:37 | 33 | 07:40 (C13) | 07:01 19:15 | | | 08:03 17:57 | | 08:09 15:55 | 41 | 09:21 (C14) 10:01 (C14) | 08:50 15:40 | 17 | 09:45 (C14) 10:03 (C14) |
| 24 | 05:01 21:43 | 06:01 20:35 | 34 | 07:41 (C13) | 07:03 19:12 | | | 08:05 17:55 | | 08:11 15:53 | 40 | 09:22 (C14) 10:01 (C14) | 08:51 15:41 | 18 | 09:45 (C14) 10:03 (C14) |
| 25 | 05:03 21:41 | 06:03 20:32 | 35 | 07:41 (C13) | 07:05 19:10 | | | 08:07 17:52 | | 08:13 15:52 | 39 | 09:22 (C14) 10:01 (C14) | 08:51 15:41 | 18 | 09:45 (C14) 10:03 (C14) |
| 26 | 05:05 21:39 | 06:05 20:30 | 37 | 07:42 (C13) | 07:07 19:07 | | | 08:10 17:50 | | 08:15 15:51 | 39 | 09:22 (C14) 10:01 (C14) | 08:51 15:42 | 19 | 09:45 (C14) 10:04 (C14) |
| 27 | 05:06 21:38 | 06:07 20:27 | 37 | 07:03 (C13) | 07:09 19:04 | | | 08:12 17:48 | | 08:17 15:49 | 39 | 09:24 (C14) 10:02 (C14) | 08:51 15:43 | 19 | 09:45 (C14) 10:05 (C14) |
| 28 | 05:08 21:36 | 06:09 20:24 | 38 | 07:41 (C13) | 07:11 19:02 | | | 08:14 17:46 | | 08:19 15:48 | 38 | 09:25 (C14) 10:02 (C14) | 08:51 15:44 | 20 | 09:45 (C14) 10:05 (C14) |
| 29 | 05:10 21:34 | 06:11 20:22 | 38 | 07:03 (C13) | 07:13 18:59 | | | 07:16 16:43 | 08:30 (C15) | 08:21 15:47 | 37 | 09:25 (C14) 10:01 (C14) | 08:51 15:45 | 20 | 09:46 (C14) 10:06 (C14) |
| 30 | 05:12 21:32 | 06:13 20:19 | 38 | 07:03 (C13) | 07:15 18:56 | | | 07:18 16:41 | 4 08:34 (C15) | 08:22 15:46 | 36 | 08:25 (C15) 08:37 (C15) | 08:51 15:46 | 20 | 09:46 (C14) 10:08 (C14) |
| 31 | 05:14 21:30 | 06:15 20:17 | 38 | 07:41 (C13) | | | | 07:20 16:38 | 12 08:23 (C15) | | 35 | 08:23 (C15) 08:39 (C15) | 08:51 15:47 | 22 | 09:46 (C14) 10:09 (C14) |
| Potential sun hours | 529 | 469 | | | 385 | | | 324 | | 247 | | | 216 | | |
| Total, worst case | | 515 | | | 283 | | | 32 | | 1421 | | | 714 | | |
| Sun reduction | | 0.50 | | | 0.43 | | | 0.26 | | 0.08 | | | 0.07 | | |
| Oper. time red. | | 0.98 | | | 0.98 | | | 0.98 | | 0.98 | | | 0.98 | | |
| Wind dir. red. | | 0.66 | | | 0.66 | | | 0.60 | | 0.61 | | | 0.61 | | |
| Total reduction | | 0.31 | | | 0.27 | | | 0.15 | | 0.05 | | | 0.04 | | |
| Total, real | | 161 | | | 76 | | | 5 | | 68 | | | 29 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Landzani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (124)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|-------------|-------------|-------------|-------------|
| 1 | 08:51 | 08:15 | 07:11 | 07:37 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 17:50 (C14) | 19:53 | 20:55 |
| 2 | 08:50 | 08:13 | 07:08 | 07:34 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 17:52 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:32 (C14) | 06:43 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 07:54 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:29 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 07:55 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:27 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 07:55 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 07:27 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:56 | 17:58 | 07:56 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 07:26 (C14) | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | 07:56 (C14) | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | 07:25 (C14) | 06:30 | 05:17 |
| | 15:58 | 17:01 | 18:03 | 07:56 (C14) | 20:08 | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | 07:25 (C14) | 06:28 | 05:15 |
| | 16:00 | 17:03 | 18:05 | 07:57 (C14) | 20:10 | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | 07:25 (C14) | 06:25 | 05:13 |
| | 16:01 | 17:05 | 18:07 | 07:56 (C14) | 20:12 | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | 07:24 (C14) | 06:22 | 05:11 |
| | 16:03 | 17:08 | 18:09 | 07:56 (C14) | 20:14 | 21:16 |
| 12 | 08:44 | 07:52 | 06:42 | 07:25 (C14) | 06:20 | 05:09 |
| | 16:05 | 17:10 | 18:11 | 07:56 (C14) | 20:16 | 21:18 |
| 13 | 08:43 | 07:50 | 06:40 | 07:25 (C14) | 06:17 | 05:07 |
| | 16:06 | 17:12 | 18:13 | 07:55 (C14) | 20:18 | 21:20 |
| 14 | 08:42 | 07:47 | 06:37 | 07:25 (C14) | 06:15 | 05:05 |
| | 16:08 | 17:14 | 18:15 | 07:53 (C14) | 20:20 | 21:22 |
| 15 | 08:41 | 07:45 | 06:34 | 07:26 (C14) | 06:12 | 05:03 |
| | 16:10 | 17:17 | 18:18 | 07:53 (C14) | 20:22 | 21:24 |
| 16 | 08:40 | 07:43 | 06:32 | 07:27 (C14) | 06:09 | 05:01 |
| | 16:12 | 17:19 | 18:20 | 07:51 (C14) | 20:24 | 21:25 |
| 17 | 08:39 | 07:40 | 06:29 | 07:27 (C14) | 06:07 | 04:59 |
| | 16:14 | 17:21 | 18:22 | 07:49 (C14) | 20:26 | 21:27 |
| 18 | 08:38 | 07:38 | 06:26 | 07:29 (C14) | 06:04 | 06:30 (C13) |
| | 16:16 | 17:23 | 18:24 | 07:46 (C14) | 20:28 | 06:31 (C13) |
| 19 | 08:36 | 07:36 | 06:24 | 07:32 (C14) | 06:02 | 06:28 (C13) |
| | 16:18 | 17:26 | 18:26 | 07:44 (C14) | 20:31 | 06:34 (C13) |
| 20 | 08:35 | 07:33 | 06:21 | 05:59 | 06:26 (C13) | 04:53 |
| | 16:20 | 17:28 | 18:28 | 20:33 | 9 | 06:35 (C13) |
| 21 | 08:33 | 07:31 | 06:18 | 05:57 | 06:23 (C13) | 04:52 |
| | 16:22 | 17:30 | 18:30 | 20:35 | 13 | 06:36 (C13) |
| 22 | 08:32 | 07:28 | 06:16 | 05:54 | 06:21 (C13) | 04:50 |
| | 16:24 | 17:32 | 18:32 | 20:37 | 16 | 06:37 (C13) |
| 23 | 08:30 | 07:26 | 06:13 | 05:52 | 06:18 (C13) | 04:48 |
| | 16:26 | 17:34 | 18:34 | 20:39 | 18 | 06:36 (C13) |
| 24 | 08:29 | 07:23 | 06:10 | 05:49 | 06:16 (C13) | 04:47 |
| | 16:28 | 17:37 | 18:36 | 20:41 | 21 | 06:37 (C13) |
| 25 | 08:27 | 07:21 | 06:08 | 05:47 | 06:14 (C13) | 04:45 |
| | 16:30 | 17:39 | 18:39 | 20:43 | 23 | 06:37 (C13) |
| 26 | 08:26 | 07:18 | 07:45 (C15) | 05:44 | 06:13 (C13) | 04:44 |
| | 16:32 | 17:41 | 1 | 20:45 | 23 | 06:36 (C13) |
| 27 | 08:24 | 07:16 | 07:42 (C15) | 05:42 | 06:13 (C13) | 04:42 |
| | 16:34 | 17:43 | 5 | 20:47 | 23 | 06:36 (C13) |
| 28 | 08:22 | 07:13 | 07:40 (C14) | 05:40 | 06:14 (C13) | 04:41 |
| | 16:37 | 17:45 | 9 | 20:49 | 22 | 06:36 (C13) |
| 29 | 08:20 | | 06:57 | 05:37 | 06:14 (C13) | 04:40 |
| | 16:39 | | 19:47 | 20:51 | 22 | 06:36 (C13) |
| 30 | 08:19 | | 06:54 | 05:35 | 06:15 (C13) | 04:38 |
| | 16:41 | | 19:49 | 20:53 | 20 | 06:35 (C13) |
| 31 | 08:17 | | 06:51 | | | 04:37 |
| | 16:43 | | 19:51 | | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 15 | 483 | 217 | 58 | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | 0.57 | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | 0.62 | 0.62 | 0.65 | 0.65 | |
| Total reduction | | 0.12 | 0.25 | 0.32 | 0.36 | |
| Total, real | | 2 | 121 | 69 | 21 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Landzani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (124)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|-------------|----------------|----------------|----------|
| 1 | 04:30 | 05:16 | 06:17 | 07:17 | 08:04 (C14) | 07:23 |
| | 22:09 | 21:28 | 20:14 | 18:54 | 31 08:35 (C14) | 16:36 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 08:03 (C14) | 07:25 |
| | 22:09 | 21:26 | 20:11 | 18:51 | 32 08:35 (C14) | 16:34 |
| 3 | 04:32 | 05:20 | 06:21 | 07:21 | 08:03 (C14) | 07:27 |
| | 22:08 | 21:24 | 20:09 | 18:48 | 31 08:34 (C14) | 16:32 |
| 4 | 04:33 | 05:22 | 06:23 | 07:23 | 08:02 (C14) | 07:29 |
| | 22:07 | 21:22 | 20:06 | 18:46 | 32 08:34 (C14) | 16:30 |
| 5 | 04:34 | 05:23 | 06:25 | 07:25 | 08:02 (C14) | 07:31 |
| | 22:07 | 21:20 | 20:03 | 18:43 | 31 08:33 (C14) | 16:27 |
| 6 | 04:35 | 05:25 | 06:27 | 07:28 | 08:02 (C14) | 07:33 |
| | 22:06 | 21:17 | 20:01 | 18:40 | 31 08:33 (C14) | 16:25 |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | 08:02 (C14) | 07:36 |
| | 22:05 | 21:15 | 19:58 | 18:38 | 30 08:32 (C14) | 16:23 |
| 8 | 04:37 | 05:29 | 06:31 (C13) | 07:32 | 08:02 (C14) | 07:38 |
| | 22:04 | 21:13 | 19:56 | 18:35 | 29 08:31 (C14) | 16:21 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 08:04 (C14) | 07:40 |
| | 22:03 | 21:11 | 19:53 | 18:33 | 27 08:31 (C14) | 16:19 |
| 10 | 04:40 | 05:33 | 06:35 | 07:36 | 08:05 (C14) | 07:42 |
| | 22:02 | 21:08 | 19:50 | 18:30 | 24 08:29 (C14) | 16:17 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 08:07 (C14) | 07:44 |
| | 22:01 | 21:06 | 19:47 | 18:27 | 20 08:27 (C14) | 16:15 |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | 08:09 (C14) | 07:46 |
| | 22:00 | 21:04 | 19:45 | 18:25 | 16 08:25 (C14) | 16:13 |
| 13 | 04:44 | 05:39 | 06:41 | 07:42 | 08:11 (C14) | 07:49 |
| | 21:59 | 21:02 | 19:42 | 18:22 | 11 08:22 (C14) | 16:11 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 08:13 (C15) | 07:51 |
| | 21:58 | 20:59 | 19:39 | 18:20 | 8 08:21 (C15) | 16:10 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 08:16 (C15) | 07:53 |
| | 21:57 | 20:57 | 19:37 | 18:17 | 4 08:20 (C15) | 16:08 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | | 07:55 |
| | 21:55 | 20:54 | 19:34 | 18:15 | | 16:06 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | | 07:57 |
| | 21:54 | 20:52 | 19:31 | 18:12 | | 16:04 |
| 18 | 04:51 | 05:49 | 06:51 | 07:52 | | 07:59 |
| | 21:52 | 20:50 | 19:29 | 18:09 | | 16:03 |
| 19 | 04:53 | 05:51 | 06:53 | 07:55 | | 08:01 |
| | 21:51 | 20:47 | 19:26 | 18:07 | | 16:01 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | | 08:03 |
| | 21:49 | 20:45 | 19:23 | 18:04 | | 15:59 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | | 08:05 |
| | 21:48 | 20:42 | 19:21 | 18:02 | | 15:58 |
| 22 | 04:58 | 05:57 | 06:59 | 08:01 | | 08:07 |
| | 21:46 | 20:40 | 19:18 | 18:00 | | 15:56 |
| 23 | 04:59 | 05:59 | 07:01 | 08:03 | | 08:09 |
| | 21:45 | 20:37 | 19:15 | 17:57 | | 15:55 |
| 24 | 05:01 | 06:01 | 07:03 | 08:05 | 08:17 (C14) | 08:11 |
| | 21:43 | 20:35 | 19:12 | 9 08:26 (C14) | 17:55 | 15:53 |
| 25 | 05:03 | 06:03 | 07:05 | 08:13 (C14) | 07:07 | 08:13 |
| | 21:41 | 20:32 | 19:10 | 16 08:29 (C14) | 16:52 | 15:52 |
| 26 | 05:05 | 06:05 | 07:07 | 08:11 (C14) | 07:10 | 08:15 |
| | 21:39 | 20:30 | 19:07 | 20 08:31 (C14) | 16:50 | 15:51 |
| 27 | 05:06 | 06:07 | 07:09 | 08:09 (C14) | 07:12 | 08:17 |
| | 21:38 | 20:27 | 19:04 | 24 08:33 (C14) | 16:48 | 15:50 |
| 28 | 05:08 | 06:09 | 07:11 | 08:07 (C14) | 07:14 | 08:19 |
| | 21:36 | 20:24 | 19:02 | 26 08:33 (C14) | 16:45 | 15:48 |
| 29 | 05:10 | 06:11 | 07:13 | 08:06 (C14) | 07:16 | 08:21 |
| | 21:34 | 20:22 | 18:59 | 28 08:34 (C14) | 16:43 | 15:47 |
| 30 | 05:12 | 06:13 | 07:15 | 08:05 (C14) | 07:18 | 08:22 |
| | 21:32 | 20:19 | 18:56 | 29 08:34 (C14) | 16:41 | 15:46 |
| 31 | 05:14 | 06:15 | | | 07:20 | 08:51 |
| | 21:30 | 20:17 | | | 16:38 | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | | 216 |
| Total, worst case | | 281 | 152 | | 357 | |
| Sun reduction | | 0.50 | 0.43 | | 0.26 | |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.65 | 0.62 | | 0.62 | |
| Total reduction | | 0.32 | 0.26 | | 0.16 | |
| Total, real | | 89 | 39 | | 56 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Landzani 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (75)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|----------------|----------------|-------|----------------|
| 1 | 08:51 | 08:15 | 07:11 | 07:37 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 22 07:59 (C14) | 19:53 | 20:55 |
| 2 | 08:50 | 08:13 | 07:08 | 07:34 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 25 07:59 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:34 (C14) | 06:44 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 26 08:00 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:33 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 27 08:00 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:32 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 28 08:00 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 07:33 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:57 | 17:58 | 27 08:00 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 07:32 (C14) | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | 27 07:59 (C14) | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | 07:32 (C14) | 06:30 | 05:17 |
| | 15:58 | 17:01 | 18:03 | 26 07:58 (C14) | 20:08 | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | 07:33 (C14) | 06:28 | 05:15 |
| | 16:00 | 17:03 | 18:05 | 25 07:58 (C14) | 20:10 | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | 07:34 (C14) | 06:25 | 05:13 |
| | 16:01 | 17:05 | 18:07 | 22 07:56 (C14) | 20:12 | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | 07:34 (C14) | 06:22 | 05:11 |
| | 16:03 | 17:08 | 18:09 | 21 07:55 (C14) | 20:14 | 1 06:48 (C13) |
| 12 | 08:44 | 07:52 | 06:42 | 07:37 (C14) | 06:20 | 06:49 (C13) |
| | 16:05 | 17:10 | 18:11 | 16 07:53 (C14) | 20:16 | 5 06:45 (C13) |
| 13 | 08:43 | 07:50 | 06:40 | 07:39 (C14) | 06:17 | 06:50 (C13) |
| | 16:06 | 17:12 | 18:13 | 11 07:50 (C14) | 20:18 | 9 06:43 (C13) |
| 14 | 08:42 | 07:47 | 06:37 | | 06:15 | 06:52 (C13) |
| | 16:08 | 17:14 | 18:15 | | 20:20 | 12 06:40 (C13) |
| 15 | 08:41 | 07:45 | 06:34 | | 06:12 | 06:52 (C13) |
| | 16:10 | 17:17 | 18:18 | | 20:22 | 15 06:38 (C13) |
| 16 | 08:40 | 07:43 | 06:32 | | 06:09 | 06:53 (C13) |
| | 16:12 | 17:19 | 18:20 | | 20:24 | 17 06:35 (C13) |
| 17 | 08:39 | 07:40 | 06:29 | | 06:07 | 06:52 (C13) |
| | 16:14 | 17:21 | 18:22 | | 20:26 | 20 06:33 (C13) |
| 18 | 08:38 | 07:38 | 06:26 | | 06:04 | 06:53 (C13) |
| | 16:16 | 17:23 | 18:24 | | 20:28 | 21 06:31 (C13) |
| 19 | 08:36 | 07:36 | 06:24 | | 06:02 | 06:52 (C13) |
| | 16:18 | 17:26 | 18:26 | | 20:31 | 21 06:31 (C13) |
| 20 | 08:35 | 07:33 | 06:21 | | 05:59 | 06:52 (C13) |
| | 16:20 | 17:28 | 18:28 | | 20:33 | 20 06:30 (C13) |
| 21 | 08:33 | 07:31 | 06:18 | | 05:57 | 06:52 (C13) |
| | 16:22 | 17:30 | 18:30 | | 20:35 | 18 06:30 (C13) |
| 22 | 08:32 | 07:28 | 06:16 | | 05:54 | 06:52 (C13) |
| | 16:24 | 17:32 | 18:32 | | 20:37 | 16 06:30 (C13) |
| 23 | 08:30 | 07:26 | 06:13 | | 05:52 | 06:52 (C13) |
| | 16:26 | 17:34 | 18:34 | | 20:39 | 14 06:30 (C13) |
| 24 | 08:29 | 07:23 | 06:10 | | 05:49 | 06:52 (C13) |
| | 16:28 | 17:37 | 18:36 | | 20:41 | 10 06:30 (C13) |
| 25 | 08:27 | 07:21 | 07:48 (C14) | 06:08 | 05:47 | 06:45 (C13) |
| | 16:30 | 17:39 | 6 07:54 (C14) | 18:39 | 20:43 | 04:45 |
| 26 | 08:26 | 07:18 | 07:45 (C14) | 06:05 | 05:44 | 21:42 |
| | 16:32 | 17:41 | 11 07:56 (C14) | 18:41 | 20:45 | 04:44 |
| 27 | 08:24 | 07:16 | 07:42 (C14) | 06:02 | 05:42 | 21:43 |
| | 16:34 | 17:43 | 15 07:57 (C14) | 18:43 | 20:47 | 21:43 |
| 28 | 08:22 | 07:13 | 07:40 (C14) | 06:00 | 05:40 | 21:45 |
| | 16:37 | 17:45 | 19 07:59 (C14) | 18:45 | 20:49 | 22:10 |
| 29 | 08:20 | | | 06:57 | 05:37 | 04:41 |
| | 16:39 | | | 19:47 | 20:51 | 21:47 |
| 30 | 08:19 | | | 06:54 | 05:35 | 21:48 |
| | 16:41 | | | 19:49 | 20:53 | 21:48 |
| 31 | 08:17 | | | 06:52 | | 21:50 |
| | 16:43 | | | 19:51 | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 51 | 303 | 199 | | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.62 | 0.62 | 0.65 | | |
| Total reduction | | 0.12 | 0.25 | 0.32 | | |
| Total, real | | 6 | 76 | 63 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Landzani 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (75)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|-----------|-------------|-------------|-------------|
| 1 | 04:30 | 05:16 | 06:17 | 06:47 (C13) | 07:17 | 08:16 (C14) |
| | 22:09 | 21:28 | 20:14 | 1 | 06:48 (C13) | 18:54 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 15 | 08:31 (C14) |
| | 22:09 | 21:26 | 20:11 | 18:51 | 19 | 08:33 (C14) |
| 3 | 04:32 | 05:20 | 06:21 | 07:21 | 18:51 | 08:33 (C14) |
| | 22:08 | 21:24 | 20:09 | 18:48 | 22 | 08:12 (C14) |
| 4 | 04:33 | 05:22 | 06:23 | 07:23 | 22 | 08:34 (C14) |
| | 22:07 | 21:22 | 20:06 | 18:46 | 24 | 08:11 (C14) |
| 5 | 04:34 | 05:24 | 06:25 | 07:25 | 24 | 07:29 |
| | 22:07 | 21:20 | 20:04 | 18:43 | 25 | 08:35 (C14) |
| 6 | 04:35 | 05:25 | 06:27 | 07:28 | 25 | 08:10 (C14) |
| | 22:06 | 21:17 | 20:01 | 18:40 | 26 | 07:31 |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | 26 | 08:35 (C14) |
| | 22:05 | 21:15 | 19:58 | 18:38 | 27 | 08:08 (C14) |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | 27 | 08:36 (C14) |
| | 22:04 | 21:13 | 19:56 | 18:35 | 28 | 08:10 (C14) |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 28 | 08:37 (C14) |
| | 22:03 | 21:11 | 19:53 | 18:33 | 27 | 07:40 |
| 10 | 04:40 | 05:33 | 06:35 | 07:36 | 27 | 08:35 (C14) |
| | 22:02 | 21:08 | 19:50 | 18:30 | 27 | 08:16 (C14) |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 27 | 08:08 (C14) |
| | 22:01 | 21:06 | 19:48 | 18:27 | 26 | 08:35 (C14) |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | 26 | 08:15 (C14) |
| | 22:00 | 21:04 | 19:45 | 18:25 | 24 | 08:09 (C14) |
| 13 | 04:44 | 05:39 | 06:41 | 07:42 | 24 | 08:33 (C14) |
| | 21:59 | 21:02 | 19:42 | 18:22 | 21 | 08:11 (C14) |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 21 | 08:32 (C14) |
| | 21:58 | 20:59 | 19:39 | 18:20 | 17 | 08:13 (C14) |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 17 | 08:30 (C14) |
| | 21:57 | 20:57 | 19:37 | 18:17 | 14 | 08:16 (C14) |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 14 | 08:30 (C14) |
| | 21:55 | 20:54 | 19:34 | 18:15 | 9 | 08:18 (C14) |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | 9 | 08:27 (C14) |
| | 21:54 | 20:52 | 19:31 | 18:12 | 4 | 08:20 (C14) |
| 18 | 04:51 | 05:49 | 06:51 | 07:52 | 4 | 08:24 (C14) |
| | 21:52 | 20:50 | 19:29 | 18:09 | | 16:04 |
| 19 | 04:53 | 05:51 | 06:53 | 07:55 | | 07:59 |
| | 21:51 | 20:47 | 19:26 | 18:07 | | 16:03 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | | 16:01 |
| | 21:49 | 20:45 | 19:23 | 18:04 | | 15:38 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | | 15:38 |
| | 21:48 | 20:42 | 19:21 | 18:02 | | 15:38 |
| 22 | 04:58 | 05:57 | 06:59 | 08:01 | | 15:38 |
| | 21:46 | 20:40 | 19:18 | 18:00 | | 15:38 |
| 23 | 04:59 | 05:59 | 07:01 | 08:03 | | 15:38 |
| | 21:45 | 20:37 | 19:15 | 17:57 | | 15:38 |
| 24 | 05:01 | 06:01 | 07:03 | 08:05 | | 15:38 |
| | 21:43 | 20:35 | 19:12 | 17:55 | | 15:38 |
| 25 | 05:03 | 06:03 | 07:05 | 08:07 | | 15:38 |
| | 21:41 | 20:32 | 19:10 | 17:52 | | 15:38 |
| 26 | 05:05 | 06:05 | 07:07 | 08:09 | | 15:38 |
| | 21:39 | 20:30 | 19:07 | 17:50 | | 15:38 |
| 27 | 05:06 | 06:07 | 07:09 | 08:11 | | 15:38 |
| | 21:38 | 20:27 | 19:04 | 17:48 | | 15:38 |
| 28 | 05:08 | 06:09 | 07:11 | 08:13 | | 15:38 |
| | 21:36 | 20:24 | 19:02 | 17:46 | | 15:38 |
| 29 | 05:10 | 06:11 | 07:13 | 08:15 | | 15:38 |
| | 21:34 | 20:22 | 18:59 | 17:43 | | 15:38 |
| 30 | 05:12 | 06:13 | 07:15 | 08:17 | | 15:38 |
| | 21:32 | 20:19 | 18:56 | 17:41 | | 15:38 |
| 31 | 05:14 | 06:15 | 07:17 | 08:19 | | 15:38 |
| | 21:30 | 20:17 | 18:54 | 17:38 | | 15:38 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 207 | 9 | 355 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.65 | 0.63 | 0.62 | | |
| Total reduction | | 0.32 | 0.26 | 0.16 | | |
| Total, real | | 66 | 2 | 56 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Landzani 4 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (159)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|------|----------------------|----------------|----------------|----------------|----------------|----------------|---------|----------------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | | 07:17 18:54 | 07:23 16:36 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 23 | 07:56 (C14) 18:51 | 07:25 16:34 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 6 | 07:32 (C14) 19:57 | 06:44 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 24 | 07:55 (C14) 18:48 | 07:27 16:32 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 11 | 07:29 (C14) 19:59 | 06:41 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 25 | 07:55 (C14) 18:46 | 07:29 16:30 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 14 | 07:26 (C14) 19:59 | 06:38 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 25 | 07:55 (C14) 18:43 | 07:31 16:27 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 18 | 07:24 (C14) 19:57 | 06:36 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 24 | 07:56 (C14) 18:40 | 07:34 16:25 |
| 7 | 08:48 15:55 | 08:03 16:59 | 06:55 18:01 | 21 | 07:21 (C14) 19:57 | 06:33 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 20:01 | 22 | 07:58 (C14) 18:38 | 07:36 16:23 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 24 | 07:18 (C14) 19:58 | 06:30 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 20:01 | 19 | 08:00 (C14) 18:35 | 07:38 16:21 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 25 | 07:18 (C14) 19:58 | 06:28 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 20:01 | 16 | 08:03 (C14) 18:33 | 07:40 16:19 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 25 | 07:17 (C14) 19:57 | 06:25 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 20:01 | 13 | 08:05 (C14) 18:30 | 07:42 16:17 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 24 | 07:17 (C14) 19:56 | 06:22 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 20:01 | 9 | 08:07 (C14) 18:27 | 07:44 16:15 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 23 | 07:18 (C14) 19:55 | 06:20 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 20:01 | 4 | 08:11 (C14) 18:25 | 07:46 16:13 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 22 | 07:18 (C14) 19:54 | 06:17 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 20:01 | | 07:42 18:22 | 07:49 16:11 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 21 | 07:18 (C14) 19:53 | 06:15 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 20:01 | | 07:44 18:20 | 07:51 16:10 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 18 | 07:20 (C14) 19:52 | 06:12 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 20:01 | | 07:46 18:17 | 07:53 16:08 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 14 | 07:21 (C14) 19:51 | 06:09 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 20:01 | | 07:48 18:15 | 07:55 16:06 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 9 | 07:23 (C14) 19:50 | 06:07 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 20:01 | | 07:50 18:12 | 07:57 16:04 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | | 06:04 19:49 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 20:01 | | 07:53 18:09 | 07:59 16:03 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | | 06:02 19:47 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 20:01 | | 07:55 18:07 | 08:01 16:01 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | | 05:59 19:45 | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 20:01 | | 07:57 18:04 | 08:03 15:59 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | | 05:57 19:43 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 20:01 | | 07:59 18:02 | 08:05 15:58 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | | 05:54 19:41 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 20:01 | | 08:01 18:00 | 08:07 15:56 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | | 05:52 19:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 20:01 | | 08:03 17:57 | 08:09 15:55 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | | 05:49 19:37 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 20:01 | | 08:05 17:55 | 08:11 15:53 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | | 05:47 19:35 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 20:01 | | 07:07 16:52 | 08:13 15:52 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | | 05:45 19:33 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 20:01 | 5 | 08:08 (C14) 17:10 | 08:15 15:51 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | | 05:42 19:31 | 04:42 21:45 | 04:28 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 20:01 | 12 | 08:13 (C14) 17:04 | 08:17 15:50 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | | 05:40 19:29 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 20:01 | 17 | 08:16 (C14) 17:01 | 08:19 15:48 |
| 29 | 08:20 16:39 | | 06:57 19:47 | | 05:37 19:27 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 20:01 | 20 | 08:18 (C14) 16:59 | 08:21 15:47 |
| 30 | 08:19 16:41 | | 06:54 19:49 | | 05:35 19:25 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 20:01 | 22 | 08:19 (C14) 16:56 | 08:22 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 05:33 19:23 | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | 07:18 20:01 | | 08:20 (C14) 16:53 | 08:24 15:47 |
| Potential sun hours | 235 | 266 | 366 | | 426 | 508 | 529 | 529 | 469 | 385 | | 324 | 216 |
| Total, worst case | | | | 275 | | | | | | 76 | | | |
| Sun reduction | | | | 0.41 | | | | | | 0.43 | | | |
| Oper. time red. | | | | 0.98 | | | | | | 0.98 | | | |
| Wind dir. red. | | | | 0.62 | | | | | | 0.62 | | | |
| Total reduction | | | | 0.25 | | | | | | 0.26 | | | |
| Total, real | | | | 69 | | | | | | 20 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Landzani 5 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (133)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|----------------|----------------|----------------|-------|
| 1 | 08:51 | 08:15 | 07:11 | 07:41 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 27 08:08 (C14) | 19:53 | 20:55 |
| 2 | 08:51 | 08:13 | 07:08 | 07:41 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 26 08:07 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:42 (C14) | 06:44 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 26 08:08 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:41 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 26 08:07 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:41 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 25 08:06 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 07:43 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:57 | 17:58 | 22 08:05 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 07:43 (C14) | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | 20 08:03 (C14) | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | 07:44 (C14) | 06:30 | 05:17 |
| | 15:58 | 17:01 | 18:03 | 17 08:01 (C14) | 20:08 | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | 07:47 (C14) | 06:28 | 05:15 |
| | 16:00 | 17:03 | 18:05 | 12 07:59 (C14) | 20:10 | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | 06:25 | 8 07:01 (C13) | 05:13 |
| | 16:01 | 17:05 | 18:07 | 20:12 | 11 07:01 (C13) | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | 06:22 | 06:48 (C13) | 05:11 |
| | 16:03 | 17:08 | 18:09 | 20:14 | 14 07:02 (C13) | 21:16 |
| 12 | 08:44 | 07:52 | 06:42 | 06:20 | 06:45 (C13) | 05:09 |
| | 16:05 | 17:10 | 18:11 | 20:16 | 17 07:02 (C13) | 21:18 |
| 13 | 08:43 | 07:50 | 06:40 | 06:17 | 06:43 (C13) | 05:07 |
| | 16:06 | 17:12 | 18:13 | 20:18 | 19 07:02 (C13) | 21:20 |
| 14 | 08:42 | 07:47 | 06:37 | 06:15 | 06:40 (C13) | 05:05 |
| | 16:08 | 17:14 | 18:15 | 20:20 | 21 07:01 (C13) | 21:22 |
| 15 | 08:41 | 07:45 | 06:34 | 06:12 | 06:41 (C13) | 05:03 |
| | 16:10 | 17:17 | 18:18 | 20:22 | 20 07:01 (C13) | 21:24 |
| 16 | 08:40 | 07:43 | 06:32 | 06:09 | 06:40 (C13) | 05:01 |
| | 16:12 | 17:19 | 18:20 | 20:24 | 20 07:00 (C13) | 21:26 |
| 17 | 08:39 | 07:40 | 06:29 | 06:07 | 06:41 (C13) | 04:59 |
| | 16:14 | 17:21 | 18:22 | 20:26 | 19 07:00 (C13) | 21:27 |
| 18 | 08:38 | 07:38 | 06:26 | 06:04 | 06:41 (C13) | 04:57 |
| | 16:16 | 17:23 | 18:24 | 20:28 | 17 06:58 (C13) | 21:29 |
| 19 | 08:36 | 07:36 | 06:24 | 06:02 | 06:43 (C13) | 04:55 |
| | 16:18 | 17:26 | 18:26 | 20:31 | 14 06:57 (C13) | 21:31 |
| 20 | 08:35 | 07:33 | 06:21 | 05:59 | 06:45 (C13) | 04:53 |
| | 16:20 | 17:28 | 18:28 | 20:33 | 10 06:55 (C13) | 21:33 |
| 21 | 08:33 | 07:31 | 07:58 (C14) | 06:18 | 05:57 | 04:52 |
| | 16:22 | 17:30 | 1 07:59 (C14) | 18:30 | 20:35 | 21:35 |
| 22 | 08:32 | 07:28 | 07:55 (C14) | 06:16 | 05:54 | 04:50 |
| | 16:24 | 17:32 | 7 08:02 (C14) | 18:32 | 20:37 | 21:37 |
| 23 | 08:30 | 07:26 | 07:53 (C14) | 06:13 | 05:52 | 04:48 |
| | 16:26 | 17:34 | 12 08:05 (C14) | 18:34 | 20:39 | 21:38 |
| 24 | 08:29 | 07:23 | 07:50 (C14) | 06:10 | 05:49 | 04:47 |
| | 16:28 | 17:37 | 16 08:06 (C14) | 18:36 | 20:41 | 21:40 |
| 25 | 08:27 | 07:21 | 07:48 (C14) | 06:08 | 05:47 | 04:45 |
| | 16:30 | 17:39 | 19 08:07 (C14) | 18:39 | 20:43 | 21:42 |
| 26 | 08:26 | 07:18 | 07:45 (C14) | 06:05 | 05:44 | 04:44 |
| | 16:32 | 17:41 | 22 08:07 (C14) | 18:41 | 20:45 | 21:43 |
| 27 | 08:24 | 07:16 | 07:42 (C14) | 06:02 | 05:42 | 04:42 |
| | 16:34 | 17:43 | 25 08:07 (C14) | 18:43 | 20:47 | 21:45 |
| 28 | 08:22 | 07:13 | 07:42 (C14) | 06:00 | 05:40 | 04:41 |
| | 16:37 | 17:45 | 26 08:08 (C14) | 18:45 | 20:49 | 21:47 |
| 29 | 08:20 | | | 06:57 | 05:37 | 04:40 |
| | 16:39 | | | 19:47 | 20:51 | 21:48 |
| 30 | 08:19 | | | 06:54 | 05:35 | 04:38 |
| | 16:41 | | | 19:49 | 20:53 | 21:50 |
| 31 | 08:17 | | | 06:52 | | 04:37 |
| | 16:43 | | | 19:51 | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 128 | 201 | | 194 | |
| Sun reduction | | 0.20 | 0.41 | | 0.50 | |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.63 | 0.63 | | 0.66 | |
| Total reduction | | 0.12 | 0.25 | | 0.32 | |
| Total, real | | 16 | 50 | 62 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Landzani 5 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (133)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|----------------|----------------|-------------|---------------|
| 1 | 04:30 | 05:16 | 06:17 | 06:47 (C13) | 07:17 | 07:23 |
| | 22:09 | 21:28 | 20:14 | 14 07:01 (C13) | 18:54 | 16:36 |
| 2 | 04:31 | 05:18 | 06:19 | 06:49 (C13) | 07:19 | 07:25 |
| | 22:09 | 21:26 | 20:11 | 11 07:00 (C13) | 18:51 | 16:34 |
| 3 | 04:32 | 05:20 | 06:21 | 06:51 (C13) | 07:21 | 07:27 |
| | 22:08 | 21:24 | 20:09 | 8 06:59 (C13) | 18:48 | 16:32 |
| 4 | 04:33 | 05:22 | 06:23 | 06:53 (C13) | 07:23 | 08:26 (C14) |
| | 22:07 | 21:22 | 20:06 | 4 06:57 (C13) | 18:46 | 9 08:35 (C14) |
| 5 | 04:34 | 05:24 | 06:25 | 07:25 | 08:22 (C14) | 16:30 |
| | 22:07 | 21:20 | 20:04 | 15 08:37 (C14) | 16:27 | 15:43 |
| 6 | 04:35 | 05:25 | 06:27 | 07:28 | 08:20 (C14) | 07:34 |
| | 22:06 | 21:17 | 20:01 | 19 08:39 (C14) | 16:25 | 15:41 |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | 08:18 (C14) | 07:36 |
| | 22:05 | 21:15 | 19:58 | 22 08:40 (C14) | 16:23 | 15:40 |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | 08:17 (C14) | 07:38 |
| | 22:04 | 21:13 | 19:56 | 23 08:40 (C14) | 16:21 | 15:40 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 08:17 (C14) | 07:40 |
| | 22:03 | 21:11 | 19:53 | 25 08:42 (C14) | 16:19 | 15:39 |
| 10 | 04:40 | 05:33 | 06:35 | 07:36 | 08:16 (C14) | 07:42 |
| | 22:02 | 21:08 | 19:50 | 26 08:42 (C14) | 16:17 | 15:39 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 08:15 (C14) | 07:44 |
| | 22:01 | 21:06 | 19:48 | 27 08:42 (C14) | 16:15 | 15:39 |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | 08:15 (C14) | 07:46 |
| | 22:00 | 21:04 | 19:45 | 26 08:41 (C14) | 16:13 | 15:38 |
| 13 | 04:44 | 05:39 | 06:41 | 07:42 | 08:14 (C14) | 07:49 |
| | 21:59 | 21:02 | 19:42 | 27 08:41 (C14) | 16:11 | 15:38 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 08:14 (C14) | 07:51 |
| | 21:58 | 20:59 | 19:39 | 26 08:40 (C14) | 16:10 | 15:38 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 08:16 (C14) | 07:53 |
| | 21:57 | 20:57 | 19:37 | 24 08:40 (C14) | 16:08 | 15:38 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 08:18 (C14) | 07:55 |
| | 21:55 | 20:54 | 19:34 | 21 08:39 (C14) | 16:06 | 15:38 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | 08:20 (C14) | 07:57 |
| | 21:54 | 20:52 | 19:31 | 18 08:38 (C14) | 16:04 | 15:38 |
| 18 | 04:51 | 05:49 | 06:51 | 07:53 | 08:22 (C14) | 07:59 |
| | 21:52 | 20:50 | 19:29 | 14 08:36 (C14) | 16:03 | 15:38 |
| 19 | 04:53 | 05:51 | 06:53 | 07:55 | 08:25 (C14) | 08:01 |
| | 21:51 | 20:47 | 19:26 | 10 08:35 (C14) | 16:01 | 15:38 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | 08:27 (C14) | 08:03 |
| | 21:49 | 20:45 | 19:23 | 6 08:33 (C14) | 15:59 | 15:39 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | 08:05 | 08:49 |
| | 21:48 | 20:42 | 19:21 | 18:02 | 15:58 | 15:39 |
| 22 | 04:58 | 05:57 | 06:59 | 08:01 | 08:07 | 08:49 |
| | 21:46 | 20:40 | 1 06:54 (C13) | 18:00 | 15:56 | 15:40 |
| 23 | 04:59 | 05:59 | 06:48 (C13) | 07:01 | 08:09 | 08:50 |
| | 21:45 | 20:37 | 11 06:59 (C13) | 17:57 | 15:55 | 15:40 |
| 24 | 05:01 | 06:01 | 06:46 (C13) | 07:03 | 08:05 | 08:51 |
| | 21:43 | 20:35 | 15 07:01 (C13) | 17:55 | 15:53 | 15:41 |
| 25 | 05:03 | 06:03 | 06:45 (C13) | 07:05 | 08:13 | 08:50 |
| | 21:41 | 20:32 | 17 07:02 (C13) | 16:52 | 15:52 | 15:41 |
| 26 | 05:05 | 06:05 | 06:44 (C13) | 07:07 | 08:15 | 08:51 |
| | 21:39 | 20:30 | 19 07:03 (C13) | 16:50 | 15:51 | 15:42 |
| 27 | 05:06 | 06:07 | 06:43 (C13) | 07:09 | 08:17 | 08:51 |
| | 21:38 | 20:27 | 20 07:03 (C13) | 16:48 | 15:50 | 15:43 |
| 28 | 05:08 | 06:09 | 06:42 (C13) | 07:11 | 08:19 | 08:51 |
| | 21:36 | 20:24 | 20 07:02 (C13) | 16:45 | 15:48 | 15:44 |
| 29 | 05:10 | 06:11 | 06:41 (C13) | 07:13 | 08:21 | 08:51 |
| | 21:34 | 20:22 | 21 07:02 (C13) | 16:43 | 15:47 | 15:45 |
| 30 | 05:12 | 06:13 | 06:43 (C13) | 07:15 | 08:22 | 08:51 |
| | 21:32 | 20:19 | 19 07:02 (C13) | 16:41 | 15:46 | 15:46 |
| 31 | 05:14 | 06:15 | 06:45 (C13) | 07:20 | 08:25 | 08:51 |
| | 21:30 | 20:17 | 17 07:02 (C13) | 16:38 | 15:47 | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 160 | 37 | 338 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.66 | 0.66 | 0.63 | | |
| Total reduction | | 0.32 | 0.27 | 0.16 | | |
| Total, real | | 51 | 10 | 53 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Latvian - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (168)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Lauri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (49)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Lazdas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (68)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Leiš ūpi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (31)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December | |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------------|----------------|----------------------|----------------------|----------------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 06:00 (C14) 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 05:59 (C14) 20:14 | 06:17 18:54 | 07:17 16:36 | 07:23 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 05:58 (C14) 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 05:58 (C14) 20:11 | 06:19 18:51 | 07:19 16:34 | 07:25 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 05:56 (C14) 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 05:58 (C14) 20:09 | 06:21 18:48 | 07:21 16:32 | 07:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 05:54 (C14) 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 05:58 (C14) 20:06 | 06:23 18:46 | 07:23 16:30 | 07:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 05:52 (C14) 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 05:58 (C14) 20:04 | 06:25 18:43 | 07:26 16:27 | 07:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 05:50 (C14) 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 05:58 (C14) 20:01 | 06:27 18:40 | 07:28 16:25 | 07:33 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 05:48 (C14) 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:00 (C14) 19:58 | 06:29 18:38 | 07:30 16:23 | 07:36 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 05:48 (C14) 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:02 (C14) 19:56 | 06:31 18:35 | 07:32 16:21 | 07:38 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 05:48 (C14) 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:04 (C14) 19:53 | 06:33 18:33 | 07:34 16:19 | 07:40 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 05:48 (C14) 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:06 (C14) 19:50 | 06:35 18:30 | 07:36 16:17 | 07:42 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 05:48 (C14) 21:16 | 04:28 22:03 | 04:41 22:01 | 05:35 21:06 | 06:08 (C14) 19:48 | 06:37 18:27 | 07:38 16:15 | 07:44 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 05:48 (C14) 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:09 (C14) 19:45 | 06:39 18:25 | 07:40 16:13 | 07:46 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 05:49 (C14) 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:11 (C14) 19:42 | 06:41 18:22 | 07:42 16:11 | 07:49 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 05:50 (C14) 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:13 (C14) 19:39 | 06:43 18:20 | 07:44 16:10 | 07:51 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 05:50 (C14) 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:15 (C14) 19:37 | 06:45 18:17 | 07:46 16:08 | 07:53 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 05:51 (C14) 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:17 (C14) 19:34 | 06:47 18:15 | 07:48 16:06 | 07:55 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 05:53 (C14) 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:19 (C14) 19:31 | 06:49 18:12 | 07:50 16:04 | 07:57 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 05:56 (C14) 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:21 (C14) 19:29 | 06:51 18:10 | 07:53 16:03 | 07:59 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 05:59 (C14) 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:23 (C14) 19:26 | 06:53 18:07 | 07:55 16:01 | 08:01 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 05:59 (C14) 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:25 (C14) 19:23 | 06:55 18:05 | 07:57 15:59 | 08:03 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 05:59 (C14) 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:27 (C14) 19:21 | 06:57 18:02 | 07:59 15:58 | 08:05 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 05:59 (C14) 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:29 (C14) 19:18 | 06:59 18:00 | 08:01 15:56 | 08:07 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 05:59 (C14) 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 06:31 (C14) 19:15 | 07:01 17:57 | 08:03 15:55 | 08:09 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 05:59 (C14) 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 06:33 (C14) 19:13 | 07:03 17:55 | 08:05 15:54 | 08:11 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 05:59 (C14) 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 06:35 (C14) 19:10 | 07:05 16:52 | 07:07 15:52 | 08:13 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 05:59 (C14) 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 06:37 (C14) 19:07 | 07:07 16:50 | 07:10 15:51 | 08:15 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 05:59 (C14) 21:45 | 04:28 22:10 | 05:07 21:38 | 06:03 (C14) 20:27 | 06:39 (C14) 19:04 | 07:09 16:48 | 07:12 15:50 | 08:17 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 05:59 (C14) 21:47 | 04:28 22:10 | 05:08 21:36 | 06:02 (C14) 20:24 | 06:41 (C14) 19:02 | 07:11 16:45 | 07:14 15:48 | 08:19 15:44 |
| 29 | 08:20 16:39 | 07:11 17:49 | 06:57 18:51 | 05:37 20:51 | 04:40 21:48 | 05:59 (C14) 21:48 | 04:29 22:10 | 05:10 21:34 | 06:00 (C14) 20:22 | 06:43 (C14) 19:01 | 07:13 16:43 | 07:16 15:47 | 08:21 15:45 |
| 30 | 08:18 16:41 | 07:09 17:54 | 06:54 18:58 | 05:35 20:53 | 04:39 21:50 | 05:59 (C14) 21:50 | 04:30 22:09 | 05:12 21:32 | 06:00 (C14) 20:19 | 06:45 (C14) 18:56 | 07:15 16:41 | 07:18 15:46 | 08:22 15:46 |
| 31 | 08:17 16:43 | 07:08 17:55 | 06:52 18:59 | 05:33 20:51 | 04:37 21:51 | 05:59 (C14) 21:51 | 05:14 21:30 | 05:59 (C14) 20:17 | 06:15 20:17 | 06:47 (C14) 18:56 | 07:20 16:38 | 07:23 15:47 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 | |
| Total, worst case | | | | | 258 | | | | | | | | |
| Sun reduction | | | | | 0.57 | | | | | | | | |
| Oper. time red. | | | | | 0.98 | | | | | | | | |
| Wind dir. red. | | | | | 0.67 | | | | | | | | |
| Total reduction | | | | | 0.37 | | | | | | | | |
| Total, real | | | | | 96 | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Lejas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (156)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Lejas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (128)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Lidijas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (51)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Lieknas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (100)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Liepsala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (88)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|----|-------------|-------|------------|------------|-------|------------|------------|-------|------------|------------|
| 1 | 08:51 | | 09:32 (C12) | 08:15 | | 09:08 (C11) | 07:11 | | 07:53 (C10) | 06:49 | | 05:32 | | 06:21 (C8) | 04:36 | | 06:25 (C8) | |
| | 15:48 | 22 | 09:54 (C12) | 16:45 | 32 | 09:40 (C11) | 17:47 | 34 | 08:27 (C10) | 19:53 | | 20:55 | 42 | 07:03 (C8) | 21:52 | 34 | 06:59 (C8) | |
| 2 | 08:50 | | 09:32 (C12) | 08:13 | | 09:08 (C11) | 07:08 | | 07:51 (C10) | 06:46 | | 05:30 | | 06:21 (C8) | 04:35 | | 06:26 (C8) | |
| | 15:49 | 22 | 09:54 (C12) | 16:47 | 32 | 09:40 (C11) | 17:50 | 36 | 08:27 (C10) | 19:55 | | 20:57 | 43 | 07:04 (C8) | 21:54 | 32 | 06:58 (C8) | |
| 3 | 08:50 | | 09:33 (C12) | 08:11 | | 09:09 (C11) | 07:05 | | 07:51 (C10) | 06:43 | | 05:28 | | 06:20 (C8) | 04:34 | | 06:27 (C8) | |
| | 15:51 | 22 | 09:55 (C12) | 16:50 | 31 | 09:40 (C11) | 17:52 | 38 | 08:29 (C10) | 19:57 | | 20:59 | 44 | 07:04 (C8) | 21:55 | 30 | 06:57 (C8) | |
| 4 | 08:50 | | 09:33 (C12) | 08:09 | | 09:09 (C11) | 07:03 | | 07:50 (C10) | 06:41 | | 05:26 | | 06:19 (C8) | 04:33 | | 06:27 (C8) | |
| | 15:52 | 23 | 09:56 (C12) | 16:52 | 32 | 09:41 (C11) | 17:54 | 39 | 08:29 (C10) | 19:59 | | 21:01 | 46 | 07:05 (C8) | 21:56 | 30 | 06:57 (C8) | |
| 5 | 08:49 | | 09:33 (C12) | 08:07 | | 09:09 (C11) | 07:00 | | 07:48 (C10) | 06:38 | | 05:23 | | 06:19 (C8) | 04:32 | | 06:29 (C8) | |
| | 15:53 | 23 | 09:56 (C12) | 16:54 | 31 | 09:40 (C11) | 17:56 | 41 | 08:29 (C10) | 20:01 | | 21:03 | 46 | 07:05 (C8) | 21:58 | 28 | 06:57 (C8) | |
| 6 | 08:49 | | 09:34 (C12) | 08:05 | | 09:10 (C11) | 06:58 | | 07:48 (C10) | 06:35 | | 05:21 | | 06:19 (C8) | 04:31 | | 06:29 (C8) | |
| | 15:55 | 23 | 09:57 (C12) | 16:56 | 30 | 09:40 (C11) | 17:58 | 42 | 08:30 (C10) | 20:03 | | 21:05 | 47 | 07:06 (C8) | 21:59 | 27 | 06:56 (C8) | |
| 7 | 08:48 | | 09:34 (C12) | 08:02 | | 09:11 (C11) | 06:55 | | 07:47 (C10) | 06:33 | | 05:19 | | 06:18 (C8) | 04:30 | | 06:30 (C8) | |
| | 15:56 | 24 | 09:58 (C12) | 16:58 | 28 | 09:39 (C11) | 18:00 | 43 | 08:30 (C10) | 20:05 | | 21:08 | 48 | 07:06 (C8) | 22:00 | 25 | 06:55 (C8) | |
| 8 | 08:47 | | 09:35 (C12) | 08:00 | | 09:12 (C11) | 06:53 | | 07:47 (C10) | 06:30 | | 05:17 | | 06:18 (C8) | 04:29 | | 06:31 (C8) | |
| | 15:58 | 23 | 09:58 (C12) | 17:01 | 27 | 09:39 (C11) | 18:02 | 43 | 08:30 (C10) | 20:07 | | 21:10 | 48 | 07:06 (C8) | 22:01 | 24 | 06:55 (C8) | |
| 9 | 08:47 | | 09:35 (C12) | 07:58 | | 09:12 (C11) | 06:50 | | 07:47 (C10) | 06:27 | | 05:15 | | 06:18 (C8) | 04:28 | | 06:32 (C8) | |
| | 15:59 | 24 | 09:59 (C12) | 17:03 | 26 | 09:38 (C11) | 18:05 | 43 | 08:30 (C10) | 20:09 | | 21:12 | 48 | 07:06 (C8) | 22:02 | 22 | 06:54 (C8) | |
| 10 | 08:46 | | 09:35 (C12) | 07:56 | | 09:13 (C11) | 06:47 | | 07:46 (C10) | 06:25 | | 05:12 | | 06:17 (C8) | 04:28 | | 06:33 (C8) | |
| | 16:01 | 24 | 09:59 (C12) | 17:05 | 24 | 09:37 (C11) | 18:07 | 44 | 08:30 (C10) | 20:12 | | 21:14 | 49 | 07:06 (C8) | 22:03 | 21 | 06:54 (C8) | |
| 11 | 08:45 | | 09:36 (C12) | 07:54 | | 09:14 (C11) | 06:45 | | 07:46 (C10) | 06:22 | | 05:10 | | 06:17 (C8) | 04:27 | | 06:33 (C8) | |
| | 16:03 | 24 | 10:00 (C12) | 17:07 | 21 | 09:35 (C11) | 18:09 | 43 | 08:29 (C10) | 20:14 | | 21:16 | 49 | 07:06 (C8) | 22:04 | 20 | 06:53 (C8) | |
| 12 | 08:44 | | 09:36 (C12) | 07:52 | | 09:17 (C11) | 06:42 | | 07:45 (C10) | 06:20 | | 05:08 | | 06:17 (C8) | 04:27 | | 06:34 (C8) | |
| | 16:04 | 23 | 09:59 (C12) | 17:10 | 16 | 09:33 (C11) | 18:11 | 43 | 08:28 (C10) | 20:16 | | 21:18 | 48 | 07:05 (C8) | 22:05 | 19 | 06:53 (C8) | |
| 13 | 08:43 | | 09:36 (C12) | 07:49 | | 09:20 (C11) | 06:39 | | 07:46 (C10) | 06:17 | | 05:06 | | 06:17 (C8) | 04:26 | | 06:35 (C8) | |
| | 16:06 | 24 | 10:00 (C12) | 17:12 | 11 | 09:31 (C11) | 18:13 | 42 | 08:28 (C10) | 20:18 | | 21:19 | 48 | 07:05 (C8) | 22:06 | 18 | 06:53 (C8) | |
| 14 | 08:42 | | 09:37 (C12) | 07:47 | | | 06:37 | | 07:46 (C10) | 06:14 | | 05:04 | | 06:18 (C8) | 04:26 | | 06:35 (C8) | |
| | 16:08 | 23 | 10:00 (C12) | 17:14 | | | 18:15 | 41 | 08:27 (C10) | 20:20 | | 21:21 | 48 | 07:06 (C8) | 22:06 | 17 | 06:52 (C8) | |
| 15 | 08:41 | | 09:37 (C12) | 07:45 | | | 06:34 | | 07:46 (C10) | 06:12 | | 05:02 | | 06:17 (C8) | 04:26 | | 06:36 (C8) | |
| | 16:10 | 23 | 10:00 (C12) | 17:16 | | | 18:17 | 40 | 08:26 (C10) | 20:22 | | 21:23 | 48 | 07:05 (C8) | 22:07 | 15 | 06:51 (C8) | |
| 16 | 08:40 | | 09:38 (C12) | 07:42 | | | 06:31 | | 07:47 (C10) | 06:09 | | 05:00 | | 06:17 (C8) | 04:25 | | 06:37 (C8) | |
| | 16:12 | 23 | 10:01 (C12) | 17:19 | | | 18:19 | 38 | 08:25 (C10) | 20:24 | | 21:25 | 48 | 07:05 (C8) | 22:08 | 14 | 06:51 (C8) | |
| 17 | 08:39 | | 09:38 (C12) | 07:40 | | | 06:29 | | 07:47 (C10) | 06:07 | | 04:59 | | 06:17 (C8) | 04:25 | | 06:38 (C8) | |
| | 16:14 | 22 | 10:00 (C12) | 17:21 | | | 18:22 | 37 | 08:24 (C10) | 20:26 | | 21:27 | 47 | 07:04 (C8) | 22:08 | 13 | 06:51 (C8) | |
| 18 | 08:37 | | 09:16 (C11) | 07:38 | | | 06:26 | | 07:48 (C10) | 06:04 | | 04:57 | | 06:18 (C8) | 04:25 | | 06:39 (C8) | |
| | 16:16 | 30 | 10:01 (C12) | 17:23 | | | 18:24 | 34 | 08:22 (C10) | 20:28 | | 21:29 | 47 | 07:05 (C8) | 22:09 | 12 | 06:51 (C8) | |
| 19 | 08:36 | | 09:14 (C11) | 07:35 | | | 06:23 | | 07:50 (C10) | 06:02 | | 04:55 | | 06:18 (C8) | 04:25 | | 06:39 (C8) | |
| | 16:18 | 34 | 10:00 (C12) | 17:25 | | | 18:26 | 31 | 08:21 (C10) | 20:30 | | 21:31 | 46 | 07:04 (C8) | 22:09 | 12 | 06:51 (C8) | |
| 20 | 08:35 | | 09:12 (C11) | 07:33 | | | 06:21 | | 07:51 (C10) | 05:59 | | 04:53 | | 06:19 (C8) | 04:25 | | 06:39 (C8) | |
| | 16:20 | 35 | 09:59 (C12) | 17:28 | | | 18:28 | 28 | 08:19 (C10) | 20:32 | | 21:33 | 45 | 07:04 (C8) | 22:10 | 12 | 06:51 (C8) | |
| 21 | 08:33 | | 09:12 (C11) | 07:31 | | | 06:18 | | 07:52 (C10) | 05:57 | | 04:51 | | 06:19 (C8) | 04:25 | | 06:40 (C8) | |
| | 16:22 | 36 | 09:59 (C12) | 17:30 | | | 18:30 | 24 | 08:16 (C10) | 20:34 | | 21:35 | 44 | 07:03 (C8) | 22:10 | 10 | 06:50 (C8) | |
| 22 | 08:32 | | 09:11 (C11) | 07:28 | | | 06:15 | | 07:54 (C10) | 05:54 | 06:41 (C8) | 04:50 | | 06:20 (C8) | 04:25 | | 06:40 (C8) | |
| | 16:24 | 36 | 09:58 (C12) | 17:32 | | | 18:32 | 18 | 08:12 (C10) | 20:37 | 6 | 06:47 (C8) | 21:36 | 43 | 07:03 (C8) | 22:10 | 12 | 06:52 (C8) |
| 23 | 08:30 | | 09:10 (C11) | 07:26 | | | 06:13 | | 07:59 (C10) | 05:52 | | 06:35 (C8) | 04:48 | 06:19 (C8) | 04:26 | | 06:40 (C8) | |
| | 16:26 | 36 | 09:57 (C12) | 17:34 | | | 18:34 | 9 | 08:08 (C10) | 20:39 | 17 | 06:52 (C8) | 21:38 | 43 | 07:02 (C8) | 22:10 | 12 | 06:52 (C8) |
| 24 | 08:29 | | 09:09 (C11) | 07:23 | | 08:06 (C10) | 06:10 | | | 05:49 | | 06:32 (C8) | 04:47 | 06:20 (C8) | 04:26 | | 06:40 (C8) | |
| | 16:28 | 33 | 09:55 (C12) | 17:36 | 9 | 08:15 (C10) | 18:36 | | | 20:41 | 23 | 06:55 (C8) | 21:40 | 42 | 07:02 (C8) | 22:10 | 12 | 06:52 (C8) |
| 25 | 08:27 | | 09:09 (C11) | 07:21 | | 08:01 (C10) | 06:07 | | | 05:47 | | 06:30 (C8) | 04:45 | 06:21 (C8) | 04:26 | | 06:40 (C8) | |
| | 16:30 | 27 | 09:36 (C11) | 17:39 | 18 | 08:19 (C10) | 18:38 | | | 20:43 | 28 | 06:58 (C8) | 21:41 | 41 | 07:02 (C8) | 22:10 | 13 | 06:53 (C8) |
| 26 | 08:25 | | 09:09 (C11) | 07:18 | | 07:59 (C10) | 06:05 | | | 05:44 | | 06:27 (C8) | 04:44 | 06:21 (C8) | 04:27 | | 06:40 (C8) | |
| | 16:32 | 28 | 09:37 (C11) | 17:41 | 23 | 08:22 (C10) | 18:40 | | | 20:45 | 31 | 06:58 (C8) | 21:43 | 40 | 07:01 (C8) | 22:10 | 13 | 06:53 (C8) |
| 27 | 08:24 | | 09:09 (C11) | 07:16 | | 07:56 (C10) | 06:02 | | | 05:42 | | 06:26 (C8) | 04:42 | 06:22 (C8) | 04:27 | | 06:40 (C8) | |
| | 16:34 | 29 | 09:38 (C11) | 17:43 | 28 | 08:24 (C10) | 18:42 | | | 20:47 | 34 | 07:00 (C8) | 21:45 | 39 | 07:01 (C8) | 22:10 | 14 | 06:54 (C8) |
| 28 | 08:22 | | 09:09 (C11) | 07:13 | | 07:54 (C10) | 05:59 | | | 05:39 | | 06:25 (C8) | 04:41 | 06:23 (C8) | 04:28 | | 06:39 (C8) | |
| | 16:36 | 30 | 09:39 (C11) | 17:45 | 31 | 08:25 (C10) | 18:45 | | | 20:49 | 36 | 07:01 (C8) | 21:46 | 37 | 07:00 (C8) | 22:10 | 16 | 06:55 (C8) |
| 29 | 08:20 | | 09:09 (C11) | | | | 06:57 | | | 05:37 | | 06:23 (C8) | 04:39 | 06:23 (C8) | 04:28 | | 06:39 (C8) | |
| | 16:38 | 30 | 09:39 (C11) | | | | 19:47 | | | 20:51 | 38 | 07:01 (C8) | 21:48 | 37 | 07:00 (C8) | 22:10 | 17 | 06:56 (C8) |
| 30 | 08:18 | | 09:08 (C11) | | | | 06:54 | | | 05:35 | | 06:22 (C8) | 04:38 | 06:24 (C8) | 04:29 | | 06:39 (C8) | |
| | 16:41 | 31 | 09:39 (C11) | | | | 19:49 | | | 20:53 | 40 | 07:02 (C8) | 21:49 | 36 | 07:00 (C8) | 22:09 | 18 | 06:57 (C8) |
| 31 | 08:16 | | 09:08 (C11) | | | | 06:51 | | | | | 04:37 | | 06:25 (C8) | | | | |
| | 16:43 | 31 | 09:39 (C11) | | | | 19:51 | | | | | 21:51 | 34 | 06:59 (C8) | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | | 426 | | 508 | | | 529 | | | |
| Total, worst case | 838 | | | 450 | | | 831 | | | 253 | | 1371 | | | 562 | | | |
| Sun reduction | 0.13 | | | 0.20 | | | 0.41 | | | 0.50 | | 0.57 | | | 0.56 | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | 0.98 | | | 0.98 | | | |
| Wind dir. red. | 0.60 | | | 0.60 | | | 0.63 | | | 0.65 | | 0.65 | | | 0.65 | | | |
| Total reduction | 0.08 | | | 0.12 | | | 0.25 | | | 0.31 | | 0.36 | | | 0.35 | | | |
| Total, real | 64 | | | 52 | | | 206 | | | 79 | | 487 | | | 196 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Liepsala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (88)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | August | | September | | October | | November | | December | |
|---------------------|-------|---------------|--------|---------------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 04:30 | 06:38 (C8) | 05:16 | 06:27 (C8) | 06:17 | 07:17 | 08:26 (C10) | 07:22 | 08:43 (C11) | 08:24 | 09:17 (C12) | |
| 2 | 22:09 | 19 06:57 (C8) | 21:28 | 49 07:16 (C8) | 20:14 | 18:53 | 42 09:08 (C10) | 16:36 | 24 09:07 (C11) | 15:45 | 24 09:41 (C12) | |
| | 04:31 | 06:37 (C8) | 05:17 | 06:27 (C8) | 06:19 | 07:19 | 08:25 (C10) | 07:25 | 08:41 (C11) | 08:26 | 09:18 (C12) | |
| 3 | 22:08 | 21 06:58 (C8) | 21:26 | 49 07:16 (C8) | 20:11 | 18:51 | 43 09:08 (C10) | 16:34 | 26 09:07 (C11) | 15:44 | 23 09:41 (C12) | |
| | 04:32 | 06:37 (C8) | 05:19 | 06:28 (C8) | 06:21 | 07:21 | 08:24 (C10) | 07:27 | 08:40 (C11) | 08:27 | 09:18 (C12) | |
| 4 | 22:08 | 22 06:59 (C8) | 21:24 | 48 07:16 (C8) | 20:09 | 18:48 | 44 09:08 (C10) | 16:31 | 28 09:08 (C11) | 15:43 | 24 09:42 (C12) | |
| | 04:32 | 06:37 (C8) | 05:21 | 06:28 (C8) | 06:23 | 07:23 | 08:24 (C10) | 07:29 | 08:40 (C11) | 08:29 | 09:19 (C12) | |
| 5 | 22:07 | 23 07:00 (C8) | 21:21 | 48 07:16 (C8) | 20:06 | 18:45 | 43 09:07 (C10) | 16:29 | 29 09:09 (C11) | 15:42 | 23 09:42 (C12) | |
| | 04:33 | 06:36 (C8) | 05:23 | 06:27 (C8) | 06:25 | 07:25 | 08:24 (C10) | 07:31 | 08:39 (C11) | 08:31 | 09:19 (C12) | |
| 6 | 22:06 | 25 07:01 (C8) | 21:19 | 48 07:15 (C8) | 20:03 | 18:43 | 43 09:07 (C10) | 16:27 | 30 09:09 (C11) | 15:41 | 24 09:43 (C12) | |
| | 04:35 | 06:36 (C8) | 05:25 | 06:28 (C8) | 06:27 | 07:27 | 08:23 (C10) | 07:33 | 08:40 (C11) | 08:32 | 09:20 (C12) | |
| 7 | 22:06 | 26 07:02 (C8) | 21:17 | 47 07:15 (C8) | 20:01 | 18:40 | 43 09:06 (C10) | 16:25 | 30 09:10 (C11) | 15:41 | 23 09:43 (C12) | |
| | 04:36 | 06:36 (C8) | 05:27 | 06:28 (C8) | 06:29 | 07:29 | 08:23 (C10) | 07:35 | 08:39 (C11) | 08:34 | 09:20 (C12) | |
| 8 | 22:05 | 27 07:03 (C8) | 21:15 | 47 07:15 (C8) | 19:58 | 18:38 | 43 09:06 (C10) | 16:23 | 31 09:10 (C11) | 15:40 | 23 09:43 (C12) | |
| | 04:37 | 06:35 (C8) | 05:29 | 06:28 (C8) | 06:31 | 07:31 | 08:23 (C10) | 07:38 | 08:38 (C11) | 08:35 | 09:21 (C12) | |
| 9 | 22:04 | 29 07:04 (C8) | 21:13 | 47 07:15 (C8) | 19:55 | 18:35 | 42 09:05 (C10) | 16:21 | 32 09:10 (C11) | 15:40 | 23 09:44 (C12) | |
| | 04:38 | 06:34 (C8) | 05:31 | 06:29 (C8) | 06:33 | 07:33 | 08:24 (C10) | 07:40 | 08:39 (C11) | 08:36 | 09:21 (C12) | |
| 10 | 22:03 | 30 07:04 (C8) | 21:11 | 45 07:14 (C8) | 19:53 | 18:32 | 40 09:04 (C10) | 16:19 | 32 09:11 (C11) | 15:39 | 22 09:43 (C12) | |
| | 04:39 | 06:34 (C8) | 05:33 | 06:29 (C8) | 06:35 | 07:36 | 08:25 (C10) | 07:42 | 08:39 (C11) | 08:38 | 09:22 (C12) | |
| 11 | 22:02 | 31 07:05 (C8) | 21:08 | 44 07:13 (C8) | 19:50 | 18:30 | 39 09:04 (C10) | 16:17 | 32 09:11 (C11) | 15:39 | 22 09:44 (C12) | |
| | 04:41 | 06:33 (C8) | 05:35 | 06:29 (C8) | 06:37 | 07:38 | 08:25 (C10) | 07:44 | 08:40 (C11) | 08:39 | 09:23 (C12) | |
| 12 | 22:01 | 33 07:06 (C8) | 21:06 | 43 07:12 (C8) | 19:47 | 18:27 | 37 09:02 (C10) | 16:15 | 31 09:11 (C11) | 15:38 | 21 09:44 (C12) | |
| | 04:42 | 06:33 (C8) | 05:37 | 06:30 (C8) | 06:39 | 07:40 | 08:26 (C10) | 07:46 | 08:40 (C11) | 08:40 | 09:23 (C12) | |
| 13 | 22:00 | 33 07:06 (C8) | 21:04 | 41 07:11 (C8) | 19:45 | 18:24 | 35 09:01 (C10) | 16:13 | 31 09:11 (C11) | 15:38 | 21 09:44 (C12) | |
| | 04:43 | 06:33 (C8) | 05:39 | 06:31 (C8) | 06:41 | 07:42 | 08:27 (C10) | 07:48 | 08:41 (C11) | 08:41 | 09:24 (C12) | |
| 14 | 21:59 | 35 07:08 (C8) | 21:01 | 40 07:11 (C8) | 19:42 | 18:22 | 32 08:59 (C10) | 16:11 | 30 09:11 (C11) | 15:38 | 21 09:45 (C12) | |
| | 04:45 | 06:32 (C8) | 05:41 | 06:32 (C8) | 06:43 | 07:44 | 08:28 (C10) | 07:51 | 08:41 (C11) | 08:42 | 09:25 (C12) | |
| 15 | 21:58 | 36 07:08 (C8) | 20:59 | 38 07:10 (C8) | 19:39 | 18:19 | 29 08:57 (C10) | 16:09 | 30 09:11 (C11) | 15:38 | 20 09:45 (C12) | |
| | 04:46 | 06:31 (C8) | 05:43 | 06:33 (C8) | 06:45 | 07:46 | 08:29 (C10) | 07:53 | 08:41 (C11) | 08:43 | 09:25 (C12) | |
| 16 | 21:56 | 38 07:09 (C8) | 20:57 | 35 07:08 (C8) | 19:36 | 18:17 | 26 08:55 (C10) | 16:07 | 29 09:10 (C11) | 15:38 | 21 09:46 (C12) | |
| | 04:48 | 06:32 (C8) | 05:45 | 06:34 (C8) | 06:47 | 07:48 | 08:32 (C10) | 07:55 | 08:42 (C11) | 08:44 | 09:26 (C12) | |
| 17 | 21:55 | 38 07:10 (C8) | 20:54 | 33 07:07 (C8) | 19:34 | 18:14 | 22 08:54 (C10) | 16:06 | 28 09:10 (C11) | 15:38 | 20 09:46 (C12) | |
| | 04:49 | 06:31 (C8) | 05:47 | 06:34 (C8) | 06:49 | 07:50 | 08:35 (C10) | 07:57 | 08:43 (C11) | 08:45 | 09:27 (C12) | |
| 18 | 21:54 | 39 07:10 (C8) | 20:52 | 31 07:05 (C8) | 19:31 | 18:12 | 15 08:50 (C10) | 16:04 | 27 09:10 (C11) | 15:38 | 19 09:46 (C12) | |
| | 04:51 | 06:31 (C8) | 05:49 | 06:36 (C8) | 06:51 | 07:52 | | 07:59 | 08:43 (C11) | 08:46 | 09:28 (C12) | |
| 19 | 21:52 | 41 07:12 (C8) | 20:49 | 27 07:03 (C8) | 19:28 | 18:09 | | 16:02 | 33 09:29 (C12) | 15:38 | 19 09:47 (C12) | |
| | 04:52 | 06:30 (C8) | 05:51 | 06:38 (C8) | 06:53 | 07:54 | | 08:01 | 08:45 (C11) | 08:47 | 09:28 (C12) | |
| 20 | 21:51 | 42 07:12 (C8) | 20:47 | 22 07:00 (C8) | 19:26 | 18:07 | | 16:01 | 36 09:32 (C12) | 15:38 | 19 09:47 (C12) | |
| | 04:54 | 06:30 (C8) | 05:53 | 06:41 (C8) | 06:55 | 07:56 | 08:48 (C10) | 08:03 | 08:46 (C11) | 08:48 | 09:29 (C12) | |
| 21 | 21:49 | 43 07:13 (C8) | 20:44 | 16 06:57 (C8) | 19:23 | 2 08:50 (C10) | 18:04 | 15:59 | 36 09:33 (C12) | 15:38 | 18 09:47 (C12) | |
| | 04:56 | 06:30 (C8) | 05:55 | | 06:57 | 08:41 (C10) | 07:59 | 08:05 | 08:47 (C11) | 08:48 | 09:29 (C12) | |
| 22 | 21:48 | 43 07:13 (C8) | 20:42 | | 19:20 | 16 08:57 (C10) | 18:02 | 15:57 | 36 09:34 (C12) | 15:39 | 18 09:47 (C12) | |
| | 04:57 | 06:30 (C8) | 05:57 | | 06:59 | 08:37 (C10) | 08:01 | 08:07 | 08:48 (C11) | 08:49 | 09:30 (C12) | |
| 23 | 21:46 | 44 07:14 (C8) | 20:39 | | 19:18 | 23 09:00 (C10) | 17:59 | 15:56 | 35 09:35 (C12) | 15:39 | 18 09:48 (C12) | |
| | 04:59 | 06:29 (C8) | 05:59 | | 07:01 | 08:35 (C10) | 08:03 | 08:09 | 08:51 (C11) | 08:49 | 09:30 (C12) | |
| 24 | 21:44 | 45 07:14 (C8) | 20:37 | | 19:15 | 27 09:02 (C10) | 17:57 | 15:55 | 34 09:37 (C12) | 15:40 | 18 09:48 (C12) | |
| | 05:01 | 06:29 (C8) | 06:01 | | 07:03 | 08:33 (C10) | 08:05 | 08:11 | 08:53 (C11) | 08:50 | 09:31 (C12) | |
| 25 | 21:43 | 45 07:14 (C8) | 20:34 | | 19:12 | 30 09:03 (C10) | 17:54 | 15:53 | 30 09:38 (C12) | 15:40 | 18 09:49 (C12) | |
| | 05:03 | 06:28 (C8) | 06:03 | | 07:05 | 08:31 (C10) | 07:07 | 08:13 | 09:16 (C12) | 08:50 | 09:31 (C12) | |
| 26 | 21:41 | 46 07:14 (C8) | 20:32 | | 19:10 | 33 09:04 (C10) | 16:52 | 15:52 | 22 09:38 (C12) | 15:41 | 19 09:50 (C12) | |
| | 05:04 | 06:28 (C8) | 06:05 | | 07:07 | 08:30 (C10) | 07:09 | 08:15 | 09:16 (C12) | 08:50 | 09:31 (C12) | |
| 27 | 21:39 | 47 07:15 (C8) | 20:29 | | 19:07 | 35 09:05 (C10) | 16:50 | 15:51 | 23 09:39 (C12) | 15:42 | 19 09:50 (C12) | |
| | 05:06 | 06:28 (C8) | 06:07 | | 07:09 | 08:28 (C10) | 07:12 | 08:17 | 09:16 (C12) | 08:51 | 09:31 (C12) | |
| 28 | 21:37 | 48 07:16 (C8) | 20:27 | | 19:04 | 38 09:06 (C10) | 16:47 | 15:49 | 23 09:39 (C12) | 15:43 | 20 09:51 (C12) | |
| | 05:08 | 06:27 (C8) | 06:09 | | 07:11 | 08:27 (C10) | 07:14 | 08:19 | 09:16 (C12) | 08:51 | 09:31 (C12) | |
| 29 | 21:35 | 48 07:15 (C8) | 20:24 | | 19:01 | 39 09:06 (C10) | 16:45 | 15:48 | 24 09:40 (C12) | 15:44 | 20 09:51 (C12) | |
| | 05:10 | 06:28 (C8) | 06:11 | | 07:13 | 08:26 (C10) | 07:16 | 08:20 | 09:17 (C12) | 08:51 | 09:31 (C12) | |
| 30 | 21:34 | 48 07:16 (C8) | 20:22 | | 18:59 | 41 09:07 (C10) | 16:43 | 13 09:01 (C11) | 15:47 | 24 09:41 (C12) | 15:44 | 21 09:52 (C12) |
| | 05:12 | 06:28 (C8) | 06:13 | | 07:15 | 08:26 (C10) | 07:18 | 08:46 (C11) | 08:22 | 09:18 (C12) | 08:51 | 09:32 (C12) |
| 31 | 21:32 | 48 07:16 (C8) | 20:19 | | 18:56 | 42 09:08 (C10) | 16:40 | 17 09:03 (C11) | 15:46 | 23 09:41 (C12) | 15:45 | 21 09:53 (C12) |
| | 05:14 | 06:27 (C8) | 06:15 | | | | 07:20 | 08:43 (C11) | | 08:51 | 09:32 (C12) | |
| | 21:30 | 48 07:15 (C8) | 20:16 | | | | 16:38 | 22 09:05 (C11) | | 15:47 | 21 09:53 (C12) | |
| Potential sun hours | 529 | | 469 | | 385 | | 324 | | 247 | | 216 | |
| Total, worst case | 1141 | | 798 | | 326 | | 670 | | 879 | | 643 | |
| Sun reduction | 0.49 | | 0.50 | | 0.43 | | 0.26 | | 0.08 | | 0.07 | |
| Oper. time red. | 0.98 | | 0.98 | | 0.98 | | 0.98 | | 0.98 | | 0.98 | |
| Wind dir. red. | 0.65 | | 0.65 | | 0.63 | | 0.62 | | 0.59 | | 0.61 | |
| Total reduction | 0.31 | | 0.31 | | 0.26 | | 0.15 | | 0.05 | | 0.04 | |
| Total, real | 352 | | 248 | | 84 | | 104 | | 41 | | 26 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Liciš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (84)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 09:14 (C13) 17:48 | 07:11 19:53 | 06:49 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 09:15 (C13) 17:50 | 07:08 19:55 | 06:46 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 09:16 (C13) 17:52 | 07:06 19:57 | 06:43 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 09:17 (C13) 17:54 | 07:03 19:59 | 06:41 21:02 | 04:33 21:57 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 09:19 (C13) 17:56 | 07:01 20:01 | 06:38 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 09:19 (C13) 17:58 | 06:58 20:03 | 06:35 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 09:21 (C13) 18:01 | 06:55 20:06 | 06:33 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 09:24 (C13) 18:03 | 06:53 20:08 | 06:30 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 09:35 (C13) 18:03 | 06:50 20:08 | 06:28 21:10 | 04:29 22:01 | 04:38 22:04 | 05:31 21:13 | 06:33 19:55 | 07:34 18:35 | 07:40 16:21 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:05 | 06:25 20:10 | 05:13 21:12 | 04:28 22:02 | 04:39 22:03 | 05:33 21:11 | 06:35 19:53 | 07:36 18:32 | 07:42 16:19 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:04 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:48 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:50 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:51 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:52 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:38 | 05:47 20:43 | 04:45 21:42 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:53 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:55 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:47 | 08:17 15:49 | 08:57 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:59 15:44 |
| 29 | 08:20 16:39 | 07:13 17:43 | 05:57 18:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 09:02 (C13) 15:45 |
| 30 | 08:19 16:41 | 07:13 17:43 | 05:54 18:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:17 17:41 | 08:22 15:46 | 09:01 (C13) 15:46 |
| 31 | 08:17 16:43 | 07:13 17:43 | 05:51 18:51 | 05:31 21:51 | 04:37 21:51 | 04:29 21:30 | 05:14 21:30 | 06:15 20:17 | 07:20 16:38 | 08:22 16:38 | 08:27 15:47 | 09:01 (C13) 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 430 | 171 | | | | | | | | | 603 | |
| Sun reduction | 0.13 | 0.20 | | | | | | | | | 0.08 | |
| Oper. time red. | 0.98 | 0.98 | | | | | | | | | 0.98 | |
| Wind dir. red. | 0.59 | 0.59 | | | | | | | | | 0.59 | |
| Total reduction | 0.08 | 0.12 | | | | | | | | | 0.05 | |
| Total, real | 33 | 20 | | | | | | | | | 29 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Licu Dzirnavas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (54)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Maurini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (37)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mazezeri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (151)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:05 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Medni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (190)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:51 | 08:09 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:03 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:43 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:26 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:06 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:38 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:53 | 05:49 20:50 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:11 | 05:00 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:11 | 05:02 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:10 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Meistari - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (85)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | | April | May | June | July | August | | September | October | November | December | |
|---------------------|----------------|----------------|----------------|----------------------------|----------------|-------------------------------|----------------|----------------|----------------|----------------|----------------------------|-------------------------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | | 06:49 19:53 | 7 07:14 (C14) 07:21 (C14) | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 15 07:02 (C14) 07:17 (C14) | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | | 06:46 19:55 | 10 07:11 (C14) 07:21 (C14) | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 17 07:01 (C14) 07:18 (C14) | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | | 06:44 19:57 | 14 07:09 (C14) 07:23 (C14) | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 18 07:00 (C14) 07:18 (C14) | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | | 06:41 19:59 | 17 07:06 (C14) 07:23 (C14) | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 20 06:59 (C14) 07:19 (C14) | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | | 06:38 20:01 | 19 07:03 (C14) 07:22 (C14) | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 21 06:58 (C14) 07:19 (C14) | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | | 06:36 20:03 | 21 07:02 (C14) 07:23 (C14) | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 21 06:58 (C14) 07:19 (C14) | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | | 06:33 20:06 | 21 07:01 (C14) 07:22 (C14) | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 21 06:59 (C14) 07:18 (C14) | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | | 06:30 20:08 | 20 07:02 (C14) 07:22 (C14) | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 17 07:00 (C14) 07:17 (C14) | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | | 06:28 20:10 | 18 07:02 (C14) 07:20 (C14) | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 14 07:02 (C14) 07:16 (C14) | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | | 06:25 20:12 | 17 07:02 (C14) 07:19 (C14) | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 11 07:04 (C14) 07:15 (C14) | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | | 06:22 20:14 | 15 07:03 (C14) 07:18 (C14) | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 7 07:06 (C14) 07:13 (C14) | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | | 06:20 20:16 | 11 07:04 (C14) 07:15 (C14) | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 3 07:08 (C14) 07:11 (C14) | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | | 06:17 20:18 | 2 07:09 (C14) 07:11 (C14) | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 07:22 | 07:49 18:22 | 08:43 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | | 06:15 20:20 | | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | | 06:12 20:22 | | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | | 07:46 07:17 | 07:53 18:17 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | | 06:10 20:24 | | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | | 07:48 07:18 | 07:55 18:15 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | | 06:07 20:26 | | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | | 07:50 07:15 | 07:57 18:12 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | | 06:04 20:28 | | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:49 19:29 | | 07:53 07:18 | 07:59 18:10 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | | 06:02 20:31 | | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | | 07:55 07:16 | 08:01 18:07 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | | 05:59 20:33 | | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | | 07:57 07:15 | 08:03 18:05 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | | 05:57 20:35 | | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | | 07:59 07:14 | 08:05 18:02 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | | 05:54 20:37 | | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | | 08:01 07:18 | 08:07 18:00 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | | 05:52 20:39 | | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | | 08:03 07:15 | 08:09 18:05 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | | 05:49 20:41 | | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | | 08:05 07:15 | 08:11 18:03 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | | 05:47 20:43 | | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | | 07:07 07:16 | 08:13 18:15 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | | 05:45 20:45 | | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | | 07:10 07:12 | 08:15 18:17 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | | 05:42 20:47 | | 04:42 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | | 07:12 07:14 | 08:17 18:19 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | | 05:40 20:49 | | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | | 07:14 07:16 | 08:19 18:21 | 08:51 15:44 |
| 29 | 08:20 16:39 | 06:57 17:47 | 05:57 18:47 | | 05:37 20:51 | | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | | 07:16 07:18 | 08:21 18:22 | 08:51 15:45 |
| 30 | 08:19 16:41 | 06:54 17:49 | 05:54 18:49 | | 05:35 20:53 | | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:09 (C14) 07:11 (C14) | 07:18 18:15 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 06:52 17:51 | 05:52 18:49 | 07:17 (C14) 07:19 (C14) | 05:35 20:53 | | 04:37 21:51 | 04:29 22:10 | 05:14 21:30 | 06:15 20:17 | 07:15 (C14) 07:15 (C14) | | 07:20 16:38 | 08:22 15:46 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | | 426 | | 508 | 528 | 529 | 469 | 385 | | 324 | 247 | 216 |
| Total, worst case | | | 2 | | 192 | | | | | 13 | 183 | | | | |
| Sun reduction | | | 0.41 | | 0.50 | | | | | 0.50 | 0.43 | | | | |
| Oper. time red. | | | 0.98 | | 0.98 | | | | | 0.98 | 0.98 | | | | |
| Wind dir. red. | | | 0.66 | | 0.66 | | | | | 0.66 | 0.66 | | | | |
| Total reduction | | | 0.27 | | 0.32 | | | | | 0.32 | 0.28 | | | | |
| Total, real | | | 1 | | 62 | | | | | 4 | 50 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež a Muiž a - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (134)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|--|-------|-------|----|------------|-------|--|-------|------|--|--|
| 1 | 08:51 | | 13:58 (C13) | 08:15 | | 14:08 (C13) | 07:11 | | 06:49 | | | | 05:32 | | 04:36 | | | |
| | 15:48 | 35 | 14:33 (C13) | 16:45 | 35 | 14:43 (C13) | 17:47 | | 19:53 | | | | 20:55 | | 21:53 | | | |
| 2 | 08:50 | | 13:59 (C13) | 08:13 | | 14:09 (C13) | 07:08 | | 06:46 | | | | 05:30 | | 04:35 | | | |
| | 15:49 | 35 | 14:34 (C13) | 16:47 | 34 | 14:43 (C13) | 17:50 | | 19:55 | | | | 20:57 | | 21:54 | | | |
| 3 | 08:50 | | 13:59 (C13) | 08:11 | | 14:11 (C13) | 07:06 | | 06:43 | | | | 05:28 | | 04:34 | | | |
| | 15:51 | 35 | 14:34 (C13) | 16:50 | 31 | 14:42 (C13) | 17:52 | | 19:57 | | | | 20:59 | | 21:55 | | | |
| 4 | 08:50 | | 13:59 (C13) | 08:09 | | 14:13 (C13) | 07:03 | | 06:41 | | | | 05:26 | | 04:33 | | | |
| | 15:52 | 36 | 14:35 (C13) | 16:52 | 28 | 14:41 (C13) | 17:54 | | 19:59 | | | | 21:02 | | 21:57 | | | |
| 5 | 08:49 | | 13:59 (C13) | 08:07 | | 14:15 (C13) | 07:00 | | 06:38 | | | | 05:23 | | 04:32 | | | |
| | 15:53 | 37 | 14:36 (C13) | 16:54 | 25 | 14:40 (C13) | 17:56 | | 20:01 | | | | 21:04 | | 21:58 | | | |
| 6 | 08:49 | | 13:59 (C13) | 08:05 | | 14:16 (C13) | 06:58 | | 06:35 | | | | 05:21 | | 04:31 | | | |
| | 15:55 | 38 | 14:37 (C13) | 16:56 | 21 | 14:37 (C13) | 17:58 | | 20:03 | | | | 21:06 | | 21:59 | | | |
| 7 | 08:48 | | 13:59 (C13) | 08:03 | | 14:19 (C13) | 06:55 | | 06:33 | | | | 05:19 | | 04:30 | | | |
| | 15:56 | 38 | 14:37 (C13) | 16:59 | 16 | 14:35 (C13) | 18:00 | | 20:05 | | | | 21:08 | | 22:00 | | | |
| 8 | 08:47 | | 13:59 (C13) | 08:00 | | 14:25 (C13) | 06:53 | | 06:30 | | | | 05:17 | | 04:29 | | | |
| | 15:58 | 39 | 14:38 (C13) | 17:01 | 5 | 14:30 (C13) | 18:03 | | 20:07 | | | | 21:10 | | 22:01 | | | |
| 9 | 08:47 | | 14:00 (C13) | 07:58 | | | 06:50 | | 06:27 | | | | 05:15 | | 04:28 | | | |
| | 15:59 | 39 | 14:39 (C13) | 17:03 | | | 18:05 | | 20:10 | | | | 21:12 | | 22:02 | | | |
| 10 | 08:46 | | 14:00 (C13) | 07:56 | | | 06:47 | | 06:25 | | | 06:50 (C4) | 05:13 | | 04:28 | | | |
| | 16:01 | 39 | 14:39 (C13) | 17:05 | | | 18:07 | | 20:12 | | 5 | 06:55 (C4) | 21:14 | | 22:03 | | | |
| 11 | 08:45 | | 14:00 (C13) | 07:54 | | | 06:45 | | 06:22 | | | 06:48 (C4) | 05:10 | | 04:27 | | | |
| | 16:03 | 40 | 14:40 (C13) | 17:08 | | | 18:09 | | 20:14 | | 9 | 06:57 (C4) | 21:16 | | 22:04 | | | |
| 12 | 08:44 | | 13:59 (C13) | 07:52 | | | 06:42 | | 06:20 | | | 06:45 (C4) | 05:08 | | 04:27 | | | |
| | 16:04 | 41 | 14:40 (C13) | 17:10 | | | 18:11 | | 20:16 | | 13 | 06:58 (C4) | 21:18 | | 22:05 | | | |
| 13 | 08:43 | | 14:00 (C13) | 07:49 | | | 06:39 | | 06:17 | | | 06:43 (C4) | 05:06 | | 04:26 | | | |
| | 16:06 | 41 | 14:41 (C13) | 17:12 | | | 18:13 | | 20:18 | | 16 | 06:59 (C4) | 21:20 | | 22:06 | | | |
| 14 | 08:42 | | 14:00 (C13) | 07:47 | | | 06:37 | | 06:14 | | | 06:40 (C4) | 05:04 | | 04:26 | | | |
| | 16:08 | 42 | 14:42 (C13) | 17:14 | | | 18:15 | | 20:20 | | 19 | 06:59 (C4) | 21:22 | | 22:07 | | | |
| 15 | 08:41 | | 14:00 (C13) | 07:45 | | | 06:34 | | 06:12 | | | 06:39 (C4) | 05:02 | | 04:26 | | | |
| | 16:10 | 42 | 14:42 (C13) | 17:17 | | | 18:17 | | 20:22 | | 21 | 07:00 (C4) | 21:24 | | 22:07 | | | |
| 16 | 08:40 | | 14:01 (C13) | 07:43 | | | 06:31 | | 06:09 | | | 06:38 (C4) | 05:01 | | 04:25 | | | |
| | 16:12 | 42 | 14:43 (C13) | 17:19 | | | 18:20 | | 20:24 | | 21 | 06:59 (C4) | 21:25 | | 22:08 | | | |
| 17 | 08:39 | | 14:00 (C13) | 07:40 | | | 06:29 | | 06:07 | | | 06:38 (C4) | 04:59 | | 04:25 | | | |
| | 16:14 | 43 | 14:43 (C13) | 17:21 | | | 18:22 | | 20:26 | | 21 | 06:59 (C4) | 21:27 | | 22:08 | | | |
| 18 | 08:37 | | 14:01 (C13) | 07:38 | | | 06:26 | | 06:04 | | | 06:37 (C4) | 04:57 | | 04:25 | | | |
| | 16:16 | 43 | 14:44 (C13) | 17:23 | | | 18:24 | | 20:28 | | 21 | 06:58 (C4) | 21:29 | | 22:09 | | | |
| 19 | 08:36 | | 14:01 (C13) | 07:35 | | | 06:23 | | 06:02 | | | 06:38 (C4) | 04:55 | | 04:25 | | | |
| | 16:18 | 43 | 14:44 (C13) | 17:25 | | | 18:26 | | 20:30 | | 20 | 06:58 (C4) | 21:31 | | 22:09 | | | |
| 20 | 08:35 | | 14:02 (C13) | 07:33 | | | 06:21 | | 05:59 | | | 06:37 (C4) | 04:53 | | 04:25 | | | |
| | 16:20 | 43 | 14:45 (C13) | 17:28 | | | 18:28 | | 20:32 | | 20 | 06:57 (C4) | 21:33 | | 22:10 | | | |
| 21 | 08:33 | | 14:02 (C13) | 07:31 | | | 06:18 | | 05:57 | | | 06:38 (C4) | 04:52 | | 04:25 | | | |
| | 16:22 | 43 | 14:45 (C13) | 17:30 | | | 18:30 | | 20:35 | | 18 | 06:56 (C4) | 21:35 | | 22:10 | | | |
| 22 | 08:32 | | 14:02 (C13) | 07:28 | | | 06:15 | | 05:54 | | | 06:40 (C4) | 04:50 | | 04:25 | | | |
| | 16:24 | 43 | 14:45 (C13) | 17:32 | | | 18:32 | | 20:37 | | 15 | 06:55 (C4) | 21:36 | | 22:10 | | | |
| 23 | 08:30 | | 14:02 (C13) | 07:26 | | | 06:13 | | 05:52 | | | 06:40 (C4) | 04:48 | | 04:26 | | | |
| | 16:26 | 43 | 14:45 (C13) | 17:34 | | | 18:34 | | 20:39 | | 13 | 06:53 (C4) | 21:38 | | 22:10 | | | |
| 24 | 08:29 | | 14:02 (C13) | 07:23 | | | 06:10 | | 05:49 | | | 06:43 (C4) | 04:47 | | 04:26 | | | |
| | 16:28 | 43 | 14:45 (C13) | 17:37 | | | 18:36 | | 20:41 | | 7 | 06:50 (C4) | 21:40 | | 22:10 | | | |
| 25 | 08:27 | | 14:04 (C13) | 07:21 | | | 06:07 | | 05:47 | | | | 04:45 | | 04:26 | | | |
| | 16:30 | 42 | 14:46 (C13) | 17:39 | | | 18:38 | | 20:43 | | | | 21:42 | | 22:10 | | | |
| 26 | 08:25 | | 14:04 (C13) | 07:18 | | | 06:05 | | 05:44 | | | | 04:44 | | 04:27 | | | |
| | 16:32 | 42 | 14:46 (C13) | 17:41 | | | 18:40 | | 20:45 | | | | 21:43 | | 22:10 | | | |
| 27 | 08:24 | | 14:05 (C13) | 07:16 | | | 06:02 | | 05:42 | | | | 04:42 | | 04:27 | | | |
| | 16:34 | 41 | 14:46 (C13) | 17:43 | | | 18:43 | | 20:47 | | | | 21:45 | | 22:10 | | | |
| 28 | 08:22 | | 14:05 (C13) | 07:13 | | | 05:59 | | 05:40 | | | | 04:41 | | 04:28 | | | |
| | 16:36 | 41 | 14:46 (C13) | 17:45 | | | 18:45 | | 20:49 | | | | 21:47 | | 22:10 | | | |
| 29 | 08:20 | | 14:06 (C13) | | | | 06:57 | | 05:37 | | | | 04:39 | | 04:28 | | | |
| | 16:39 | 40 | 14:46 (C13) | | | | 19:47 | | 20:51 | | | | 21:48 | | 22:10 | | | |
| 30 | 08:18 | | 14:07 (C13) | | | | 06:54 | | 05:35 | | | | 04:38 | | 04:29 | | | |
| | 16:41 | 38 | 14:45 (C13) | | | | 19:49 | | 20:53 | | | | 21:50 | | 22:09 | | | |
| 31 | 08:17 | | 14:07 (C13) | | | | 06:51 | | | | | | 04:37 | | | | | |
| | 16:43 | 37 | 14:44 (C13) | | | | 19:51 | | | | | | 21:51 | | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | 426 | | | | 508 | | 529 | | | |
| Total, worst case | 1244 | | | 195 | | | | | 239 | | | | | | | | | |
| Sun reduction | 0.13 | | | 0.20 | | | | | 0.50 | | | | | | | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | | | 0.98 | | | | | | | | | |
| Wind dir. red. | 0.66 | | | 0.66 | | | | | 0.66 | | | | | | | | | |
| Total reduction | 0.09 | | | 0.13 | | | | | 0.32 | | | | | | | | | |
| Total, real | 108 | | | 25 | | | | | 77 | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež a Muiž a - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (134)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|---------------------|----------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 06:47 (C4) 18:54 | 07:17 16:36 | 08:24 15:45 |
| 2 | 04:31 22:08 | 05:17 21:26 | 06:19 20:11 | 06:49 (C4) 18:51 | 07:19 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 04:34 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 04:51 21:52 | 05:49 20:49 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:40 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:13 17:52 | 08:19 15:52 | 08:50 15:41 |
| 26 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 08:15 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:17 17:47 | 08:17 15:49 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:19 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:21 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:22 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | 07:17 18:53 | 08:24 17:39 | 08:24 15:45 | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 232 | 13 | | 1030 | 1057 |
| Sun reduction | | 0.50 | 0.43 | | 0.08 | 0.07 |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | 0.98 |
| Wind dir. red. | | 0.66 | 0.66 | | 0.66 | 0.66 |
| Total reduction | | 0.32 | 0.27 | | 0.05 | 0.05 |
| Total, real | | 74 | 4 | | 55 | 48 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež a Rasas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (102)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:30 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:06 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:39 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:26 22:10 | 05:00 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež muiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (122)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June |
|---------------------|---------|-------------|-------------|-------------|-------|-------------|---------------|-------|--------------|-------|
| 1 | 08:51 | 14:22 (C14) | 08:15 | 14:23 (C13) | 07:11 | 06:49 | | | 05:32 | 04:36 |
| | 15:48 | 21 | 14:43 (C13) | 16:45 | 42 | 15:05 (C13) | 17:47 | 19:53 | 20:55 | 21:52 |
| 2 | 08:50 | 14:23 (C14) | 08:13 | 14:24 (C13) | 07:08 | 06:46 | | | 05:30 | 04:35 |
| | 15:49 | 22 | 14:45 (C13) | 16:47 | 41 | 15:05 (C13) | 17:50 | 19:55 | 20:57 | 21:54 |
| 3 | 08:50 | 14:23 (C14) | 08:11 | 14:25 (C13) | 07:06 | 06:43 | | | 05:28 | 04:34 |
| | 15:51 | 23 | 14:46 (C13) | 16:50 | 40 | 15:05 (C13) | 17:52 | 19:57 | 20:59 | 21:55 |
| 4 | 08:50 | 14:23 (C14) | 08:09 | 14:26 (C13) | 07:03 | 06:41 | | | 05:26 | 04:33 |
| | 15:52 | 24 | 14:47 (C13) | 16:52 | 39 | 15:05 (C13) | 17:54 | 19:59 | 21:02 | 21:57 |
| 5 | 08:49 | 14:24 (C13) | 08:07 | 14:27 (C13) | 07:00 | 06:38 | | | 05:23 | 04:32 |
| | 15:53 | 24 | 14:48 (C13) | 16:54 | 38 | 15:05 (C13) | 17:56 | 20:01 | 21:04 | 21:58 |
| 6 | 08:49 | 14:24 (C13) | 08:05 | 14:27 (C13) | 06:58 | 06:35 | | | 05:21 | 04:31 |
| | 15:55 | 25 | 14:49 (C13) | 16:56 | 36 | 15:03 (C13) | 17:58 | 20:03 | 21:06 | 21:59 |
| 7 | 08:48 | 14:23 (C13) | 08:03 | 14:29 (C13) | 06:55 | 06:33 | | | 05:19 | 04:30 |
| | 15:56 | 27 | 14:50 (C13) | 16:59 | 34 | 15:03 (C13) | 18:00 | 20:05 | 21:08 | 22:00 |
| 8 | 08:47 | 14:23 (C13) | 08:00 | 14:30 (C13) | 06:53 | 06:30 | | | 05:17 | 04:29 |
| | 15:58 | 29 | 14:52 (C13) | 17:01 | 32 | 15:02 (C13) | 18:03 | 20:07 | 21:10 | 22:01 |
| 9 | 08:47 | 14:23 (C13) | 07:58 | 14:31 (C13) | 06:50 | 06:27 | | | 05:15 | 04:28 |
| | 15:59 | 30 | 14:53 (C13) | 17:03 | 29 | 15:00 (C13) | 18:05 | 20:10 | 21:12 | 22:02 |
| 10 | 08:46 | 14:23 (C13) | 07:56 | 14:33 (C13) | 06:47 | 06:25 | | | 05:13 | 04:28 |
| | 16:01 | 31 | 14:54 (C13) | 17:05 | 26 | 14:59 (C13) | 18:07 | 20:12 | 21:14 | 22:03 |
| 11 | 08:45 | 14:23 (C13) | 07:54 | 14:36 (C13) | 06:45 | 06:22 | | | 05:10 | 04:27 |
| | 16:03 | 32 | 14:55 (C13) | 17:08 | 21 | 14:57 (C13) | 18:09 | 20:14 | 21:16 | 22:04 |
| 12 | 08:44 | 14:22 (C13) | 07:52 | 14:38 (C13) | 06:42 | 06:20 | | | 05:08 | 04:27 |
| | 16:04 | 33 | 14:55 (C13) | 17:10 | 16 | 14:54 (C13) | 18:11 | 20:16 | 21:18 | 22:05 |
| 13 | 08:43 | 14:22 (C13) | 07:49 | 14:45 (C13) | 06:39 | 06:17 | 06:43 (C4) | 05:06 | 04:26 | |
| | 16:06 | 34 | 14:56 (C13) | 17:12 | 3 | 14:48 (C13) | 18:13 | 20:18 | 5 06:48 (C4) | 21:20 |
| 14 | 08:42 | 14:22 (C13) | 07:47 | 14:48 (C13) | 06:37 | 06:14 | 06:40 (C4) | 05:04 | 04:26 | |
| | 16:08 | 36 | 14:58 (C13) | 17:14 | 18:15 | 20:20 | 9 06:49 (C4) | 21:22 | 22:07 | |
| 15 | 08:41 | 14:21 (C13) | 07:45 | 14:49 (C13) | 06:34 | 06:12 | 06:38 (C4) | 05:02 | 04:26 | |
| | 16:10 | 37 | 14:58 (C13) | 17:17 | 18:17 | 20:22 | 13 06:51 (C4) | 21:24 | 22:07 | |
| 16 | 08:40 | 14:22 (C13) | 07:43 | 14:50 (C13) | 06:31 | 06:09 | 06:35 (C4) | 05:01 | 04:25 | |
| | 16:12 | 37 | 14:59 (C13) | 17:19 | 18:20 | 20:24 | 17 06:52 (C4) | 21:25 | 22:08 | |
| 17 | 08:39 | 14:21 (C13) | 07:40 | 14:51 (C13) | 06:29 | 06:07 | 06:33 (C4) | 04:59 | 04:25 | |
| | 16:14 | 38 | 14:59 (C13) | 17:21 | 18:22 | 20:26 | 20 06:53 (C4) | 21:27 | 22:08 | |
| 18 | 08:37 | 14:21 (C13) | 07:38 | 14:52 (C13) | 06:26 | 06:04 | 06:31 (C4) | 04:57 | 04:25 | |
| | 16:16 | 40 | 15:01 (C13) | 17:23 | 18:24 | 20:28 | 21 06:52 (C4) | 21:29 | 22:09 | |
| 19 | 08:36 | 14:21 (C13) | 07:35 | 14:53 (C13) | 06:23 | 06:02 | 06:31 (C4) | 04:55 | 04:25 | |
| | 16:18 | 40 | 15:01 (C13) | 17:25 | 18:26 | 20:30 | 22 06:53 (C4) | 21:31 | 22:09 | |
| 20 | 08:35 | 14:22 (C13) | 07:33 | 14:54 (C13) | 06:21 | 05:59 | 06:30 (C4) | 04:53 | 04:25 | |
| | 16:20 | 40 | 15:02 (C13) | 17:28 | 18:28 | 20:32 | 22 06:52 (C4) | 21:33 | 22:10 | |
| 21 | 08:33 | 14:21 (C13) | 07:31 | 14:55 (C13) | 06:18 | 05:57 | 06:30 (C4) | 04:52 | 04:25 | |
| | 16:22 | 42 | 15:03 (C13) | 17:30 | 18:30 | 20:35 | 22 06:52 (C4) | 21:35 | 22:10 | |
| 22 | 08:32 | 14:21 (C13) | 07:28 | 14:56 (C13) | 06:15 | 05:54 | 06:30 (C4) | 04:50 | 04:25 | |
| | 16:24 | 42 | 15:03 (C13) | 17:32 | 18:32 | 20:37 | 22 06:52 (C4) | 21:36 | 22:10 | |
| 23 | 08:30 | 14:21 (C13) | 07:26 | 14:57 (C13) | 06:13 | 05:52 | 06:30 (C4) | 04:48 | 04:26 | |
| | 16:26 | 42 | 15:03 (C13) | 17:34 | 18:34 | 20:39 | 21 06:51 (C4) | 21:38 | 22:10 | |
| 24 | 08:29 | 14:21 (C13) | 07:23 | 14:58 (C13) | 06:10 | 05:49 | 06:31 (C4) | 04:47 | 04:26 | |
| | 16:28 | 43 | 15:04 (C13) | 17:37 | 18:36 | 20:41 | 19 06:50 (C4) | 21:40 | 22:10 | |
| 25 | 08:27 | 14:22 (C13) | 07:21 | 14:59 (C13) | 06:07 | 05:47 | 06:31 (C4) | 04:45 | 04:26 | |
| | 16:30 | 43 | 15:05 (C13) | 17:39 | 18:38 | 20:43 | 19 06:50 (C4) | 21:42 | 22:10 | |
| 26 | 08:25 | 14:22 (C13) | 07:18 | 15:00 (C13) | 06:05 | 05:44 | 06:32 (C4) | 04:44 | 04:27 | |
| | 16:32 | 43 | 15:05 (C13) | 17:41 | 18:40 | 20:45 | 16 06:48 (C4) | 21:43 | 22:10 | |
| 27 | 08:24 | 14:22 (C13) | 07:16 | 15:01 (C13) | 06:02 | 05:42 | 06:33 (C4) | 04:42 | 04:27 | |
| | 16:34 | 43 | 15:05 (C13) | 17:43 | 18:43 | 20:47 | 13 06:46 (C4) | 21:45 | 22:10 | |
| 28 | 08:22 | 14:22 (C13) | 07:13 | 15:02 (C13) | 05:59 | 05:40 | 06:36 (C4) | 04:41 | 04:28 | |
| | 16:36 | 44 | 15:06 (C13) | 17:45 | 18:45 | 20:49 | 8 06:44 (C4) | 21:47 | 22:10 | |
| 29 | 08:20 | 14:23 (C13) | | 15:03 (C13) | 06:57 | 05:37 | | 04:39 | 04:28 | |
| | 16:39 | 43 | 15:06 (C13) | | 19:47 | 20:51 | | 21:48 | 22:10 | |
| 30 | 08:18 | 14:23 (C13) | | 15:04 (C13) | 06:54 | 05:35 | | 04:38 | 04:29 | |
| | 16:41 | 43 | 15:06 (C13) | | 19:49 | 20:53 | | 21:50 | 22:09 | |
| 31 | 08:17 | 14:23 (C13) | | 15:02 (C13) | 06:51 | | | 04:37 | | |
| | 16:43 | 42 | 15:05 (C13) | | 19:51 | | | 21:51 | | |
| Potential sun hours | 235 | | 266 | | 366 | 426 | | 508 | 529 | |
| Total, worst case | 1093 | | 397 | | | 269 | | | | |
| Sun reduction | 0.13 | | 0.20 | | | 0.50 | | | | |
| Oper. time red. | 0.98 | | 0.98 | | | 0.98 | | | | |
| Wind dir. red. | 0.66 | | 0.66 | | | 0.65 | | | | |
| Total reduction | 0.09 | | 0.13 | | | 0.32 | | | | |
| Total, real | 95 | | 52 | | | 86 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež muiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (122)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December | | |
|---------------------|----------------|----------------|--------------------------|----------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 14:02 (C13) 14:29 (C13) | 08:24 15:45 | 14:05 (C13) 14:37 (C13) |
| 2 | 04:31 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 14:00 (C13) 14:30 (C13) | 08:26 15:44 | 14:06 (C13) 14:37 (C13) |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 14:00 (C13) 14:32 (C13) | 08:27 15:43 | 14:06 (C13) 14:36 (C13) |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 13:58 (C13) 14:32 (C13) | 08:29 15:42 | 14:07 (C13) 14:36 (C13) |
| 5 | 04:34 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 13:57 (C13) 14:33 (C13) | 08:31 15:42 | 14:09 (C13) 14:36 (C13) |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 13:57 (C13) 14:34 (C13) | 08:32 15:41 | 14:10 (C13) 14:36 (C13) |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 | 13:56 (C13) 14:35 (C13) | 08:34 15:40 | 14:10 (C13) 14:35 (C13) |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 13:56 (C13) 14:36 (C13) | 08:35 15:40 | 14:11 (C14) 14:35 (C13) |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 13:55 (C13) 14:36 (C13) | 08:37 15:39 | 14:11 (C14) 14:34 (C13) |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 13:54 (C13) 14:36 (C13) | 08:38 15:39 | 14:12 (C14) 14:34 (C13) |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 13:55 (C13) 14:37 (C13) | 08:39 15:38 | 14:12 (C14) 14:33 (C13) |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 13:54 (C13) 14:37 (C13) | 08:40 15:38 | 14:13 (C14) 14:34 (C13) |
| 13 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 13:55 (C13) 14:38 (C13) | 08:41 15:38 | 14:13 (C14) 14:34 (C14) |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 13:54 (C13) 14:38 (C13) | 08:43 15:38 | 14:13 (C14) 14:34 (C14) |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:43 (C4) 06:52 (C4) | 06:45 19:37 | 07:46 18:17 | 13:54 (C13) 14:37 (C13) | 08:44 15:38 | 14:13 (C14) 14:35 (C14) |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:40 (C4) 06:54 (C4) | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 13:55 (C13) 14:38 (C13) | 14:14 (C14) 14:35 (C14) |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:38 (C4) 06:54 (C4) | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 13:55 (C13) 14:38 (C13) | 14:14 (C14) 14:36 (C14) |
| 18 | 04:51 21:52 | 05:49 20:49 | 06:37 (C4) 06:55 (C4) | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 13:55 (C13) 14:38 (C13) | 14:15 (C14) 14:36 (C14) |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:36 (C4) 06:56 (C4) | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 13:56 (C13) 14:38 (C13) | 14:15 (C14) 14:36 (C14) |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:35 (C4) 06:57 (C4) | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 13:56 (C13) 14:38 (C13) | 14:15 (C14) 14:37 (C14) |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:35 (C4) 06:57 (C4) | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 13:56 (C13) 14:38 (C13) | 14:16 (C14) 14:38 (C14) |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:34 (C4) 06:57 (C4) | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 13:58 (C13) 14:38 (C13) | 14:16 (C14) 14:38 (C14) |
| 23 | 04:59 21:45 | 05:59 20:37 | 06:34 (C4) 06:57 (C4) | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 13:58 (C13) 14:38 (C13) | 14:17 (C14) 14:39 (C14) |
| 24 | 05:01 21:43 | 06:01 20:35 | 06:34 (C4) 06:56 (C4) | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 13:59 (C13) 14:38 (C13) | 14:18 (C14) 14:39 (C14) |
| 25 | 05:03 21:41 | 06:03 20:32 | 06:35 (C4) 06:56 (C4) | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 13:59 (C13) 14:38 (C13) | 14:18 (C14) 14:39 (C14) |
| 26 | 05:04 21:39 | 06:05 20:29 | 06:35 (C4) 06:54 (C4) | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 14:00 (C13) 14:37 (C13) | 14:18 (C14) 14:39 (C14) |
| 27 | 05:06 21:37 | 06:07 20:27 | 06:37 (C4) 06:53 (C4) | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 14:01 (C13) 14:38 (C13) | 14:19 (C14) 14:40 (C14) |
| 28 | 05:08 21:36 | 06:09 20:24 | 06:39 (C4) 06:52 (C4) | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 14:02 (C13) 14:38 (C13) | 14:19 (C14) 14:40 (C14) |
| 29 | 05:10 21:34 | 06:11 20:22 | 06:41 (C4) 06:50 (C4) | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 14:03 (C13) 14:37 (C13) | 14:20 (C14) 14:41 (C14) |
| 30 | 05:12 21:32 | 06:13 20:19 | 06:43 (C4) 06:47 (C4) | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 14:04 (C13) 14:37 (C13) | 14:21 (C14) 14:41 (C14) |
| 31 | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | 14:04 (C13) 14:26 (C13) | | 08:51 15:47 | 14:21 (C14) 14:42 (C14) |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | | 216 | |
| Total, worst case | | 271 | | 47 | 1163 | | 715 | |
| Sun reduction | | 0.50 | | 0.26 | 0.08 | | 0.07 | |
| Oper. time red. | | 0.98 | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.65 | | 0.66 | 0.66 | | 0.66 | |
| Total reduction | | 0.32 | | 0.17 | 0.05 | | 0.05 | |
| Total, real | | 87 | | 8 | 63 | | 33 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež setas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (165)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež vidi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (71)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|------|-------------|----------|----|-------------|-------|-------------|-------------|-------|------|-------------|-------|-------------|-------------|-------|-------------|-------------|
| 1 | 08:51 | | 12:55 (C16) | 08:15 | | 07:11 | | 15:40 (C15) | 06:49 | | | 05:32 | | | 04:36 | | 20:28 (C13) | |
| | 15:48 | 46 | 13:41 (C16) | 16:45 | | 17:47 | 32 | 16:12 (C15) | 19:53 | | | 20:55 | | | 21:52 | 33 | 21:01 (C13) | |
| 2 | 08:50 | | 12:55 (C16) | 08:13 | | 07:08 | | 15:41 (C15) | 06:46 | | | 05:30 | | | 04:35 | | 20:28 (C13) | |
| | 15:49 | 45 | 13:40 (C16) | 16:47 | | 17:50 | 29 | 16:10 (C15) | 19:55 | | | 20:57 | | | 21:54 | 34 | 21:02 (C13) | |
| 3 | 08:50 | | 12:56 (C16) | 08:11 | | 07:06 | | 15:44 (C15) | 06:43 | | | 05:28 | | | 04:34 | | 20:28 (C13) | |
| | 15:51 | 46 | 13:42 (C16) | 16:50 | | 17:52 | 25 | 16:09 (C15) | 19:57 | | | 20:59 | | | 21:55 | 34 | 21:02 (C13) | |
| 4 | 08:50 | | 12:56 (C16) | 08:09 | | 15:54 (C15) | 07:03 | 15:46 (C15) | 06:41 | | | 05:26 | | | 04:33 | | 20:28 (C13) | |
| | 15:52 | 46 | 13:42 (C16) | 16:52 | 6 | 16:00 (C15) | 17:54 | 20 | 16:06 (C15) | 19:59 | | 21:01 | | | 21:56 | 34 | 21:02 (C13) | |
| 5 | 08:49 | | 12:56 (C16) | 08:07 | | 15:48 (C15) | 07:00 | 15:49 (C15) | 06:38 | | | 05:23 | | | 04:32 | | 20:28 (C13) | |
| | 15:53 | 46 | 13:42 (C16) | 16:54 | 16 | 16:04 (C15) | 17:56 | 13 | 16:02 (C15) | 20:01 | | 21:04 | | | 21:58 | 35 | 21:03 (C13) | |
| 6 | 08:49 | | 12:57 (C16) | 08:05 | | 15:46 (C15) | 06:58 | | 06:35 | | | 05:21 | | | 04:31 | | 20:28 (C13) | |
| | 15:55 | 46 | 13:43 (C16) | 16:56 | 21 | 16:07 (C15) | 17:58 | | 20:03 | | | 21:06 | | | 21:59 | 35 | 21:03 (C13) | |
| 7 | 08:48 | | 12:57 (C16) | 08:03 | | 15:44 (C15) | 06:55 | | 06:33 | | | 05:19 | | | 04:30 | | 20:28 (C13) | |
| | 15:56 | 46 | 13:43 (C16) | 16:59 | 25 | 16:09 (C15) | 18:00 | | 20:05 | | | 21:08 | | | 22:00 | 35 | 21:03 (C13) | |
| 8 | 08:47 | | 12:58 (C16) | 08:00 | | 15:43 (C15) | 06:53 | | 06:30 | | | 05:17 | | | 04:29 | | 20:28 (C13) | |
| | 15:58 | 46 | 13:44 (C16) | 17:01 | 29 | 16:12 (C15) | 18:03 | | 20:07 | | | 21:10 | | | 22:01 | 36 | 21:04 (C13) | |
| 9 | 08:47 | | 12:58 (C16) | 07:58 | | 15:41 (C15) | 06:50 | | 17:30 (C14) | 06:27 | | 05:15 | | | 04:29 | | 20:28 (C13) | |
| | 15:59 | 46 | 13:44 (C16) | 17:03 | 31 | 16:12 (C15) | 18:05 | 6 | 17:36 (C14) | 20:10 | | 21:12 | | | 22:02 | 36 | 21:04 (C13) | |
| 10 | 08:46 | | 12:59 (C16) | 07:56 | | 15:40 (C15) | 06:47 | | 17:25 (C14) | 06:25 | | 06:50 (C10) | 05:13 | | 04:28 | | 20:28 (C13) | |
| | 16:01 | 45 | 13:44 (C16) | 17:05 | 34 | 16:14 (C15) | 18:07 | 14 | 17:39 (C14) | 20:12 | 1 | 06:51 (C10) | 21:14 | | 22:03 | 37 | 21:05 (C13) | |
| 11 | 08:45 | | 13:00 (C16) | 07:54 | | 15:39 (C15) | 06:45 | | 17:23 (C14) | 06:22 | | 06:48 (C10) | 05:10 | | 04:27 | | 20:28 (C13) | |
| | 16:03 | 45 | 13:45 (C16) | 17:08 | 35 | 16:14 (C15) | 18:09 | 17 | 17:40 (C14) | 20:14 | 6 | 06:54 (C10) | 21:16 | | 22:04 | 37 | 21:05 (C13) | |
| 12 | 08:44 | | 12:59 (C16) | 07:52 | | 15:38 (C15) | 06:42 | | 17:22 (C14) | 06:20 | | 06:45 (C10) | 05:08 | | 04:27 | | 20:28 (C13) | |
| | 16:04 | 45 | 13:44 (C16) | 17:10 | 38 | 16:16 (C15) | 18:11 | 21 | 17:43 (C14) | 20:16 | 10 | 06:55 (C10) | 21:18 | | 22:05 | 37 | 21:05 (C13) | |
| 13 | 08:43 | | 13:00 (C16) | 07:49 | | 15:38 (C15) | 06:39 | | 17:20 (C14) | 06:17 | | 06:43 (C10) | 05:06 | | 04:26 | | 20:29 (C13) | |
| | 16:06 | 45 | 13:45 (C16) | 17:12 | 39 | 16:17 (C15) | 18:13 | 23 | 17:43 (C14) | 20:18 | 13 | 06:56 (C10) | 21:20 | | 22:06 | 37 | 21:06 (C13) | |
| 14 | 08:42 | | 13:01 (C16) | 07:47 | | 15:37 (C15) | 06:37 | | 17:19 (C14) | 06:14 | | 06:40 (C10) | 05:04 | | 04:26 | | 20:29 (C13) | |
| | 16:08 | 44 | 13:45 (C16) | 17:14 | 40 | 16:17 (C15) | 18:15 | 24 | 17:43 (C14) | 20:20 | 16 | 06:56 (C10) | 21:21 | | 22:06 | 37 | 21:06 (C13) | |
| 15 | 08:41 | | 13:01 (C16) | 07:45 | | 15:37 (C15) | 06:34 | | 17:17 (C14) | 06:12 | | 06:38 (C10) | 05:03 | | 04:26 | | 20:28 (C13) | |
| | 16:10 | 44 | 13:45 (C16) | 17:17 | 41 | 16:18 (C15) | 18:17 | 26 | 17:43 (C14) | 20:22 | 19 | 06:57 (C10) | 21:23 | | 22:07 | 38 | 21:06 (C13) | |
| 16 | 08:40 | | 13:02 (C16) | 07:42 | | 15:36 (C15) | 06:31 | | 17:18 (C14) | 06:09 | | 06:36 (C10) | 05:01 | | 04:25 | | 20:29 (C13) | |
| | 16:12 | 44 | 13:46 (C16) | 17:19 | 42 | 16:18 (C15) | 18:20 | 26 | 17:44 (C14) | 20:24 | 20 | 06:56 (C10) | 21:25 | | 22:08 | 37 | 21:06 (C13) | |
| 17 | 08:39 | | 13:02 (C16) | 07:40 | | 15:36 (C15) | 06:29 | | 17:17 (C14) | 06:07 | | 06:36 (C10) | 04:59 | | 04:25 | | 20:29 (C13) | |
| | 16:14 | 43 | 13:45 (C16) | 17:21 | 43 | 16:19 (C15) | 18:22 | 27 | 17:44 (C14) | 20:26 | 20 | 06:56 (C10) | 21:27 | | 22:08 | 37 | 21:06 (C13) | |
| 18 | 08:37 | | 13:03 (C16) | 07:38 | | 15:35 (C15) | 06:26 | | 06:51 (C11) | 06:04 | | 06:36 (C10) | 04:57 | | 04:25 | | 20:29 (C13) | |
| | 16:16 | 43 | 13:46 (C16) | 17:23 | 43 | 16:18 (C15) | 18:24 | 28 | 17:43 (C14) | 20:28 | 19 | 06:55 (C10) | 21:29 | | 22:09 | 38 | 21:07 (C13) | |
| 19 | 08:36 | | 13:04 (C16) | 07:35 | | 15:36 (C15) | 06:23 | | 06:49 (C11) | 06:02 | | 06:36 (C10) | 04:55 | | 04:25 | | 20:29 (C13) | |
| | 16:18 | 41 | 13:45 (C16) | 17:25 | 43 | 16:19 (C15) | 18:26 | 32 | 17:43 (C14) | 20:30 | 19 | 06:55 (C10) | 21:31 | | 22:09 | 38 | 21:07 (C13) | |
| 20 | 08:35 | | 13:04 (C16) | 07:33 | | 15:35 (C15) | 06:21 | | 06:46 (C11) | 05:59 | | 06:36 (C10) | 04:53 | | 04:25 | | 20:29 (C13) | |
| | 16:20 | 41 | 13:45 (C16) | 17:28 | 43 | 16:18 (C15) | 18:28 | 35 | 17:42 (C14) | 20:32 | 17 | 06:53 (C10) | 21:33 | 9 | 20:48 (C13) | 22:10 | 38 | 21:07 (C13) |
| 21 | 08:33 | | 13:06 (C16) | 07:31 | | 15:36 (C15) | 06:18 | | 06:43 (C11) | 05:57 | | 06:38 (C10) | 04:52 | | 04:25 | | 20:30 (C13) | |
| | 16:22 | 39 | 13:45 (C16) | 17:30 | 43 | 16:19 (C15) | 18:30 | 37 | 17:41 (C14) | 20:35 | 14 | 06:52 (C10) | 21:35 | 14 | 20:50 (C13) | 22:10 | 38 | 21:08 (C13) |
| 22 | 08:32 | | 13:06 (C16) | 07:28 | | 15:35 (C15) | 06:15 | | 06:41 (C11) | 05:54 | | 06:39 (C10) | 04:50 | | 04:25 | | 20:30 (C13) | |
| | 16:24 | 39 | 13:45 (C16) | 17:32 | 43 | 16:18 (C15) | 18:32 | 38 | 17:40 (C14) | 20:37 | 12 | 06:51 (C10) | 21:36 | 18 | 20:53 (C13) | 22:10 | 38 | 21:08 (C13) |
| 23 | 08:30 | | 13:07 (C16) | 07:26 | | 15:36 (C15) | 06:13 | | 06:38 (C11) | 05:52 | | 06:41 (C10) | 04:48 | | 04:26 | | 20:30 (C13) | |
| | 16:26 | 37 | 13:44 (C16) | 17:34 | 42 | 16:18 (C15) | 18:34 | 38 | 17:38 (C14) | 20:39 | 7 | 06:48 (C10) | 21:38 | 21 | 20:55 (C13) | 22:10 | 38 | 21:08 (C13) |
| 24 | 08:29 | | 13:08 (C16) | 07:23 | | 15:36 (C15) | 06:10 | | 06:37 (C11) | 05:49 | | 04:47 | | | 04:26 | | 20:30 (C13) | |
| | 16:28 | 35 | 13:43 (C16) | 17:37 | 41 | 16:17 (C15) | 18:36 | 35 | 17:36 (C14) | 20:41 | | 21:40 | 23 | 20:55 (C13) | 22:10 | 38 | 21:08 (C13) | |
| 25 | 08:27 | | 13:09 (C16) | 07:21 | | 15:36 (C15) | 06:07 | | 06:37 (C11) | 05:47 | | 04:45 | | | 04:26 | | 20:31 (C13) | |
| | 16:30 | 34 | 13:43 (C16) | 17:39 | 40 | 16:16 (C15) | 18:38 | 30 | 17:33 (C14) | 20:43 | | 21:42 | 25 | 20:57 (C13) | 22:10 | 37 | 21:08 (C13) | |
| 26 | 08:25 | | 13:12 (C16) | 07:18 | | 15:37 (C15) | 06:05 | | 06:37 (C11) | 05:44 | | 04:44 | | | 04:27 | | 20:31 (C13) | |
| | 16:32 | 31 | 13:43 (C16) | 17:41 | 39 | 16:16 (C15) | 18:40 | 18 | 06:55 (C11) | 20:45 | | 21:43 | 27 | 20:58 (C13) | 22:10 | 37 | 21:08 (C13) | |
| 27 | 08:24 | | 13:13 (C16) | 07:16 | | 15:38 (C15) | 06:02 | | 06:38 (C11) | 05:42 | | 04:42 | | | 04:27 | | 20:32 (C13) | |
| | 16:34 | 29 | 13:42 (C16) | 17:43 | 37 | 16:15 (C15) | 18:43 | 16 | 06:54 (C11) | 20:47 | | 21:45 | 28 | 20:58 (C13) | 22:10 | 37 | 21:09 (C13) | |
| 28 | 08:22 | | 13:15 (C16) | 07:13 | | 15:39 (C15) | 05:59 | | 06:38 (C11) | 05:40 | | 04:41 | | | 04:28 | | 20:31 (C13) | |
| | 16:36 | 25 | 13:40 (C16) | 17:45 | 35 | 16:14 (C15) | 18:45 | 14 | 06:52 (C11) | 20:49 | | 21:46 | 30 | 20:59 (C13) | 22:10 | 37 | 21:08 (C13) | |
| 29 | 08:20 | | 13:18 (C16) | | | 06:57 | | | 07:40 (C11) | 05:37 | | 04:40 | | | 04:29 | | 20:32 (C13) | |
| | 16:39 | 20 | 13:38 (C16) | | | 19:47 | | 10 | 07:50 (C11) | 20:51 | | 21:48 | 31 | 21:00 (C13) | 22:10 | 37 | 21:09 (C13) | |
| 30 | 08:18 | | 13:20 (C16) | | | 06:54 | | | | 05:35 | | 04:38 | | | 04:29 | | 20:33 (C13) | |
| | 16:41 | 15 | 13:35 (C16) | | | 19:49 | | | | 20:53 | | 21:49 | 31 | 21:00 (C13) | 22:09 | 36 | 21:09 (C13) | |
| 31 | 08:16 | | 13:26 (C16) | | | 06:51 | | | | | | 04:37 | | | | | | |
| | 16:43 | 3 | 13:29 (C16) | | | 19:51 | | | | | | 21:51 | 32 | 21:01 (C13) | | | | |
| Potential sun hours | | 235 | | 266 | | 366 | | 426 | | | 508 | | | | 528 | | | |
| Total, worst case | | 1200 | | 889 | | 634 | | 193 | | | 289 | | | | 1096 | | | |
| Sun reduction | | 0.13 | | 0.20 | | 0.41 | | 0.50 | | | 0.57 | | | | 0.56 | | | |
| Oper. time red. | | 0.98 | | 0.98 | | 0.98 | | 0.98 | | | 0.98 | | | | 0.98 | | | |
| Wind dir. red. | | 0.63 | | 0.67 | | 0.66 | | 0.66 | | | 0.62 | | | | 0.62 | | | |
| Total reduction | | 0.08 | | 0.13 | | 0.26 | | 0.32 | | | 0.34 | | | | 0.34 | | | |
| Total, real | | 99 | | 117 | | 168 | | 62 | | | 100 | | | | 372 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Mež vidi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (71)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|----------------|----------------------------|----------------|----------------|----------------------------|----------------|----------------------------|----------------------|----------------------|----------------|----------------------------|
| 1 | 04:30 22:09 | 20:32 (C13) 21:09 (C13) | 05:16 21:28 | 06:17 20:14 | 06:47 (C10) 06:53 (C10) | 07:17 18:54 | 18:00 (C14) 16:36 | 07:22 15:10 (C15) | 15:43 (C15) 15:45 | 08:24 15:45 | 12:42 (C16) 13:27 (C16) |
| 2 | 04:31 22:08 | 20:33 (C13) 21:09 (C13) | 05:18 21:26 | 06:19 20:11 | 06:49 (C10) 06:50 (C10) | 07:19 18:51 | 18:01 (C14) 16:34 | 07:25 15:42 (C15) | 15:43 (C15) 15:44 | 08:26 15:44 | 12:41 (C16) 13:27 (C16) |
| 3 | 04:32 22:08 | 20:33 (C13) 21:09 (C13) | 05:19 21:24 | 06:21 20:09 | 06:21 20:09 | 07:21 18:48 | 18:02 (C14) 16:32 | 07:27 15:13 (C15) | 15:43 (C15) 15:43 | 08:27 15:43 | 12:41 (C16) 13:27 (C16) |
| 4 | 04:33 22:07 | 20:33 (C13) 21:10 (C13) | 05:21 21:21 | 06:23 20:06 | 06:23 20:06 | 07:23 18:46 | 18:05 (C14) 16:29 | 07:29 15:14 (C15) | 15:43 (C15) 15:42 | 08:29 15:42 | 12:42 (C16) 13:28 (C16) |
| 5 | 04:34 22:07 | 20:34 (C13) 21:10 (C13) | 05:23 21:19 | 06:25 20:03 | 06:25 20:03 | 07:25 18:43 | 15:16 (C15) 16:27 | 07:31 15:36 (C15) | 15:43 (C15) 15:42 | 08:31 15:42 | 12:43 (C16) 13:28 (C16) |
| 6 | 04:35 22:06 | 20:34 (C13) 21:10 (C13) | 05:25 21:17 | 06:27 20:01 | 06:27 20:01 | 07:27 18:40 | 16:25 16:25 | 07:33 15:34 (C15) | 15:43 (C15) 15:41 | 08:32 15:41 | 12:43 (C16) 13:29 (C16) |
| 7 | 04:36 22:05 | 20:35 (C13) 21:10 (C13) | 05:27 21:15 | 06:29 19:58 | 06:29 19:58 | 07:29 18:38 | 16:23 16:23 | 07:35 15:25 (C15) | 15:43 (C15) 15:40 | 08:34 15:40 | 12:43 (C16) 13:29 (C16) |
| 8 | 04:37 22:04 | 20:35 (C13) 21:10 (C13) | 05:29 21:13 | 06:31 19:55 | 06:31 19:55 | 07:31 18:35 | 16:28 (C15) 16:21 | 07:38 16:34 (C15) | 15:43 (C15) 15:40 | 08:35 15:40 | 12:44 (C16) 13:30 (C16) |
| 9 | 04:38 22:03 | 20:35 (C13) 21:10 (C13) | 05:31 21:11 | 06:33 19:53 | 06:33 19:53 | 07:34 18:32 | 16:22 (C15) 16:19 | 07:40 15:39 (C15) | 15:43 (C15) 15:39 | 08:36 15:39 | 12:44 (C16) 13:30 (C16) |
| 10 | 04:39 22:02 | 20:35 (C13) 21:09 (C13) | 05:33 21:08 | 06:35 19:50 | 06:35 19:50 | 07:36 18:30 | 16:19 (C15) 16:17 | 07:42 15:39 (C15) | 15:43 (C15) 15:39 | 08:38 15:39 | 12:45 (C16) 13:31 (C16) |
| 11 | 04:41 22:01 | 20:36 (C13) 21:09 (C13) | 05:35 21:06 | 06:37 19:47 | 06:37 19:47 | 07:38 18:27 | 16:17 (C15) 16:15 | 07:44 13:02 (C16) | 15:43 (C15) 15:38 | 08:39 15:38 | 12:45 (C16) 13:31 (C16) |
| 12 | 04:42 22:00 | 20:37 (C13) 21:10 (C13) | 05:37 21:04 | 06:39 19:45 | 06:39 19:45 | 07:40 18:25 | 16:14 (C15) 16:13 | 07:46 15:37 (C16) | 15:43 (C15) 15:38 | 08:40 15:38 | 12:45 (C16) 13:31 (C16) |
| 13 | 04:43 21:59 | 20:37 (C13) 21:09 (C13) | 05:39 21:01 | 06:41 19:42 | 06:41 19:42 | 07:42 18:22 | 16:13 (C15) 16:11 | 07:48 13:10 (C16) | 15:43 (C15) 15:38 | 08:41 15:38 | 12:46 (C16) 13:32 (C16) |
| 14 | 04:45 21:58 | 20:38 (C13) 21:08 (C13) | 05:41 20:59 | 06:43 19:39 | 06:43 19:39 | 07:44 18:19 | 16:11 (C15) 16:09 | 07:51 13:12 (C16) | 15:43 (C15) 15:38 | 08:42 15:38 | 12:47 (C16) 13:32 (C16) |
| 15 | 04:46 21:56 | 20:38 (C13) 21:08 (C13) | 05:43 20:57 | 06:45 19:37 | 06:45 19:37 | 07:46 18:17 | 16:10 (C15) 16:08 | 07:53 13:14 (C16) | 15:43 (C15) 15:38 | 08:44 15:38 | 12:47 (C16) 13:33 (C16) |
| 16 | 04:48 21:55 | 20:39 (C13) 21:08 (C13) | 05:45 20:54 | 06:47 19:34 | 06:47 19:34 | 07:48 18:14 | 16:09 (C15) 16:06 | 07:55 13:16 (C16) | 15:43 (C15) 15:38 | 08:44 15:38 | 12:47 (C16) 13:33 (C16) |
| 17 | 04:49 21:54 | 20:40 (C13) 21:07 (C13) | 05:47 20:52 | 06:49 19:31 | 06:49 19:31 | 07:50 18:12 | 16:08 (C15) 16:04 | 07:57 13:17 (C16) | 15:43 (C15) 15:38 | 08:45 15:38 | 12:48 (C16) 13:33 (C16) |
| 18 | 04:51 21:52 | 20:41 (C13) 21:07 (C13) | 05:49 20:49 | 06:51 19:28 | 06:51 19:28 | 07:52 18:09 | 16:07 (C15) 16:02 | 07:59 13:17 (C16) | 15:43 (C15) 15:38 | 08:46 15:38 | 12:49 (C16) 13:34 (C16) |
| 19 | 04:52 21:51 | 20:41 (C13) 21:06 (C13) | 05:51 20:47 | 06:53 19:26 | 06:53 19:26 | 07:54 18:07 | 16:06 (C15) 16:01 | 08:01 13:19 (C16) | 15:43 (C15) 15:38 | 08:47 15:38 | 12:48 (C16) 13:34 (C16) |
| 20 | 04:54 21:49 | 20:43 (C13) 21:05 (C13) | 05:53 20:44 | 06:55 19:23 | 06:55 19:23 | 07:57 18:24 | 16:07 (C15) 16:04 | 08:03 15:59 | 15:43 (C15) 15:39 | 08:48 15:39 | 12:49 (C16) 13:35 (C16) |
| 21 | 04:56 21:48 | 20:44 (C13) 21:03 (C13) | 05:55 20:42 | 06:57 19:20 | 06:57 19:20 | 07:59 18:25 | 16:06 (C15) 16:02 | 08:05 15:58 | 15:43 (C15) 15:39 | 08:48 15:39 | 12:49 (C16) 13:34 (C16) |
| 22 | 04:57 21:46 | 20:46 (C13) 21:02 (C13) | 05:57 20:40 | 06:59 19:18 | 06:59 19:18 | 08:01 18:25 | 16:05 (C15) 16:04 | 08:07 15:56 | 15:43 (C15) 15:39 | 08:49 15:39 | 12:50 (C16) 13:35 (C16) |
| 23 | 04:59 21:44 | 20:48 (C13) 21:00 (C13) | 05:59 20:37 | 07:01 19:15 | 07:01 19:15 | 08:03 18:26 | 16:06 (C15) 16:04 | 08:09 15:55 | 15:43 (C15) 15:39 | 08:49 15:39 | 12:50 (C16) 13:36 (C16) |
| 24 | 05:01 21:43 | 20:52 (C13) 20:56 (C13) | 06:01 20:34 | 07:03 19:12 | 07:03 19:12 | 08:05 18:26 | 16:06 (C15) 16:04 | 08:11 15:53 | 15:43 (C15) 15:39 | 08:50 15:39 | 12:51 (C16) 13:37 (C16) |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 20:30 | 07:05 19:10 | 07:05 19:10 | 08:07 18:26 | 15:05 (C15) 15:48 (C15) | 08:13 15:52 | 15:43 (C15) 15:41 | 08:50 15:41 | 12:52 (C16) 13:37 (C16) |
| 26 | 05:04 21:39 | 06:05 20:29 | 07:07 20:20 | 07:07 19:07 | 07:07 19:07 | 08:09 18:25 | 15:06 (C15) 15:48 (C15) | 08:15 15:51 | 15:43 (C15) 15:42 | 08:50 15:42 | 12:52 (C16) 13:37 (C16) |
| 27 | 05:06 21:37 | 06:07 20:27 | 07:09 20:20 | 07:09 19:04 | 07:09 19:04 | 08:11 18:25 | 15:06 (C15) 15:47 (C15) | 08:17 15:49 | 15:43 (C15) 15:43 | 08:51 15:43 | 12:53 (C16) 13:38 (C16) |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:11 19:02 | 07:11 19:02 | 08:13 18:24 | 15:06 (C15) 15:46 (C15) | 08:19 15:48 | 15:43 (C15) 15:44 | 08:51 15:44 | 12:53 (C16) 13:38 (C16) |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 19:01 | 07:13 18:59 | 07:13 18:59 | 08:15 18:24 | 15:08 (C15) 15:46 (C15) | 08:20 15:47 | 15:43 (C15) 15:45 | 08:51 15:45 | 12:53 (C16) 13:39 (C16) |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 19:00 | 07:15 18:56 | 07:15 18:56 | 08:17 18:23 | 15:08 (C15) 15:45 (C15) | 08:22 15:46 | 15:43 (C15) 15:46 | 08:51 15:46 | 12:54 (C16) 13:40 (C16) |
| 31 | 05:14 21:30 | 06:15 20:16 | 07:15 19:00 | 07:15 18:56 | 07:15 18:56 | 08:19 16:38 | 15:09 (C15) 15:44 (C15) | 08:23 15:47 | 15:43 (C15) 15:47 | 08:51 15:47 | 12:54 (C16) 13:39 (C16) |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 1415 | 0.07 | 0.08 | 0.08 | 0.08 | 0.07 |
| Total, worst case | 695 | 188 | 465 | 932 | 856 | 1415 | 0.07 | 0.08 | 0.08 | 0.08 | 0.07 |
| Sun reduction | 0.49 | 0.50 | 0.43 | 0.26 | 0.08 | 0.07 | 0.08 | 0.08 | 0.08 | 0.08 | 0.07 |
| Oper. time red. | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | 0.62 | 0.66 | 0.65 | 0.67 | 0.64 | 0.63 | 0.64 | 0.64 | 0.64 | 0.63 | 0.63 |
| Total reduction | 0.30 | 0.32 | 0.27 | 0.17 | 0.05 | 0.04 | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 |
| Total, real | 208 | 60 | 127 | 158 | 44 | 62 | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Muiž nieki (kad. apz. 56960040061) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (61)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1.01 1.91 4.85 7.09 9.29 9.83 8.40 7.53 5.47 2.70 0.68 0.49

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
441 466 538 463 487 780 784 937 1,214 1,078 832 556 8,576
Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|----------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 09:02 (C13) 17:48 | 07:11 19:53 | 06:49 20:55 | 05:33 21:53 | 04:36 22:09 | 04:30 21:28 | 05:16 20:14 | 06:17 18:54 | 07:23 16:36 | 08:27 (C13) 15:45 |
| 2 | 08:50 15:49 | 08:13 16:47 | 09:01 (C13) 17:50 | 07:08 19:55 | 06:46 20:57 | 05:30 21:54 | 04:35 22:09 | 04:31 21:26 | 05:18 20:11 | 06:19 18:51 | 07:25 16:34 | 08:27 (C13) 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 09:00 (C13) 17:52 | 07:06 19:57 | 06:43 21:00 | 05:28 21:55 | 04:34 22:08 | 04:32 21:24 | 05:20 20:09 | 06:21 18:48 | 07:27 16:32 | 08:28 (C13) 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 09:00 (C13) 17:54 | 07:03 19:59 | 06:41 21:02 | 05:26 21:57 | 04:33 22:07 | 04:33 21:22 | 05:21 20:06 | 06:23 18:46 | 07:23 16:29 | 08:29 (C13) 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 09:00 (C13) 17:56 | 07:01 19:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 18:43 | 07:25 16:27 | 08:31 (C13) 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 08:58 (C13) 17:58 | 06:58 20:03 | 06:35 21:06 | 05:21 21:59 | 04:31 22:06 | 04:35 21:17 | 05:25 20:01 | 06:27 18:40 | 07:27 16:25 | 08:32 (C13) 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 08:58 (C13) 18:01 | 06:55 20:05 | 06:33 21:08 | 05:19 22:00 | 04:30 22:05 | 04:36 21:15 | 05:27 19:58 | 06:29 18:38 | 07:30 16:23 | 08:34 (C13) 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 08:58 (C13) 18:03 | 06:53 20:08 | 06:30 21:10 | 05:17 22:01 | 04:29 22:04 | 04:37 21:13 | 05:29 19:55 | 06:31 18:35 | 07:32 16:21 | 08:35 (C13) 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 08:57 (C13) 18:05 | 06:50 20:10 | 06:28 21:12 | 05:15 22:02 | 04:29 22:03 | 04:38 21:11 | 05:31 19:53 | 06:33 18:32 | 07:34 16:19 | 08:37 (C13) 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 08:58 (C13) 18:07 | 06:47 20:12 | 06:25 21:14 | 05:13 22:03 | 04:28 22:02 | 04:39 21:08 | 05:33 19:50 | 06:35 18:30 | 07:36 16:17 | 08:38 (C13) 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 08:58 (C13) 18:09 | 06:45 20:14 | 06:22 21:16 | 05:11 22:04 | 04:27 22:01 | 04:41 21:06 | 05:35 19:47 | 06:37 18:27 | 07:38 16:15 | 08:39 (C13) 15:38 |
| 12 | 08:44 16:05 | 07:52 17:10 | 08:57 (C13) 18:11 | 06:42 20:16 | 06:20 21:18 | 05:08 22:05 | 04:27 22:00 | 04:42 21:04 | 05:37 19:45 | 06:39 18:25 | 07:40 16:13 | 08:40 (C13) 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 08:58 (C13) 18:13 | 06:40 20:18 | 06:17 21:20 | 05:06 22:06 | 04:26 21:59 | 04:43 21:02 | 05:39 19:42 | 06:41 18:22 | 07:42 16:11 | 08:42 (C13) 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 08:57 (C13) 18:15 | 06:37 20:20 | 06:15 21:22 | 05:04 22:07 | 04:26 21:58 | 04:45 20:59 | 05:41 19:39 | 06:43 18:20 | 07:44 16:09 | 08:43 (C13) 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 08:58 (C13) 18:18 | 06:34 20:22 | 06:12 21:24 | 05:03 22:07 | 04:26 21:57 | 04:46 20:57 | 05:43 19:37 | 06:45 18:17 | 07:46 16:08 | 08:44 (C13) 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 08:58 (C13) 18:20 | 06:32 20:24 | 06:09 21:25 | 05:01 22:08 | 04:25 21:55 | 04:48 20:54 | 05:45 19:34 | 06:47 18:14 | 07:48 16:06 | 08:45 (C13) 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 08:59 (C13) 18:22 | 06:29 20:26 | 06:07 21:27 | 04:59 22:08 | 04:25 21:54 | 04:49 20:52 | 05:47 19:31 | 06:49 18:12 | 07:50 16:04 | 08:46 (C13) 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 08:59 (C13) 18:24 | 06:26 20:28 | 06:04 21:29 | 04:57 22:09 | 04:25 21:52 | 04:51 20:50 | 05:49 19:29 | 06:51 18:09 | 07:52 16:02 | 08:47 (C13) 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 09:00 (C13) 18:26 | 06:24 20:30 | 06:02 21:31 | 04:55 22:09 | 04:25 21:51 | 04:52 20:47 | 05:51 19:26 | 06:53 18:07 | 07:55 16:01 | 08:48 (C13) 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 09:00 (C13) 18:28 | 06:21 20:33 | 06:00 21:33 | 04:54 22:10 | 04:25 21:49 | 04:54 20:45 | 05:53 19:23 | 06:55 18:04 | 07:57 16:00 | 08:49 (C13) 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 09:02 (C13) 18:30 | 06:18 20:35 | 05:57 21:35 | 04:52 22:10 | 04:25 21:48 | 04:56 20:42 | 05:55 19:20 | 06:57 18:02 | 07:59 16:00 | 08:48 (C13) 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 09:02 (C13) 18:32 | 06:16 20:37 | 05:54 21:37 | 04:50 22:10 | 04:25 21:46 | 04:57 20:40 | 05:57 19:18 | 06:59 17:59 | 08:01 16:00 | 08:49 (C13) 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 09:04 (C13) 18:34 | 06:13 20:39 | 05:52 21:38 | 04:48 22:10 | 04:26 21:45 | 04:59 20:37 | 05:59 19:15 | 07:01 17:57 | 08:03 16:00 | 08:50 (C13) 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 09:06 (C13) 18:36 | 06:10 20:41 | 05:49 21:40 | 04:47 22:10 | 04:26 21:43 | 05:01 20:35 | 06:01 19:12 | 07:03 17:55 | 08:05 16:00 | 08:51 (C13) 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 09:09 (C13) 18:38 | 06:07 20:43 | 05:47 21:42 | 04:45 22:10 | 04:26 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 09:07 (C13) 16:00 | 08:52 (C13) 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 09:14 (C13) 18:41 | 06:05 20:45 | 05:44 21:43 | 04:44 22:10 | 04:27 21:39 | 06:05 20:30 | 07:07 19:07 | 08:09 17:50 | 09:08 (C13) 16:00 | 08:51 (C13) 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 09:19 (C13) 18:43 | 06:02 20:47 | 05:42 21:45 | 04:42 22:10 | 04:27 21:38 | 06:07 20:27 | 07:09 19:04 | 08:11 17:47 | 09:09 (C13) 16:00 | 08:51 (C13) 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 09:21 (C13) 18:45 | 06:00 20:49 | 05:40 21:47 | 04:41 22:10 | 04:28 21:36 | 06:09 20:24 | 07:11 19:02 | 08:13 17:45 | 09:11 (C13) 16:00 | 08:51 (C13) 15:44 |
| 29 | 08:20 16:39 | 07:06 17:47 | 09:25 (C13) 18:47 | 05:57 20:51 | 05:37 21:48 | 04:40 22:10 | 04:29 21:34 | 06:11 20:22 | 07:13 19:15 | 08:15 17:43 | 09:13 (C13) 16:00 | 08:51 (C13) 15:45 |
| 30 | 08:18 16:41 | 07:05 17:49 | 09:27 (C13) 18:49 | 05:54 20:53 | 05:35 21:50 | 04:38 22:09 | 04:29 21:32 | 06:13 20:19 | 07:15 18:56 | 08:17 17:41 | 09:15 (C13) 16:00 | 08:51 (C13) 15:46 |
| 31 | 08:17 16:43 | 07:04 17:51 | 09:29 (C13) 18:51 | 05:51 20:57 | 05:31 21:51 | 04:37 22:10 | 04:27 21:30 | 06:15 20:17 | 07:20 16:38 | 08:19 17:42 | 09:17 (C13) 16:00 | 08:51 (C13) 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 97 | 884 | | | | | | | | 538 | 461 | |
| Sun reduction | 0.13 | 0.20 | | | | | | | | 0.26 | 0.08 | |
| Oper. time red. | 0.98 | 0.98 | | | | | | | | 0.98 | 0.98 | |
| Wind dir. red. | 0.59 | 0.59 | | | | | | | | 0.59 | 0.59 | |
| Total reduction | 0.08 | 0.12 | | | | | | | | 0.15 | 0.05 | |
| Total, real | 7 | 102 | | | | | | | | 80 | 22 | |

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) First time (hh:mm) with flicker (WTG causing flicker first time)
Sun set (hh:mm) Minutes with flicker Last time (hh:mm) with flicker (WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Muiž nieki (kad. apz. 76860010011) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (191)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1.01 1.91 4.85 7.09 9.29 9.83 8.40 7.53 5.47 2.70 0.68 0.49

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
441 466 538 463 487 780 784 937 1,214 1,078 832 556 8,576
Idle start wind speed: Cut in wind speed from power curve

| | | January | February | March | April | May | June | July | August | September | October | November | December | | | |
|---------------------|-------|------------|------------|------------|-------|-------|-------|-------|--------|-----------|---------|----------|------------|------------|------------|-------|
| 1 | 08:50 | 08:14 | 15:35 (C3) | 07:10 | 06:48 | 05:32 | 04:35 | 04:29 | 05:15 | 06:17 | 07:17 | 07:22 | 08:24 | | | |
| | 15:48 | 16:45 | 21 | 15:56 (C3) | 17:47 | 19:53 | 20:55 | 21:52 | 22:09 | 21:28 | 20:14 | 18:53 | 16:35 | 15:44 | | |
| 2 | 08:50 | 08:12 | 15:36 (C3) | 07:08 | 06:46 | 05:30 | 04:34 | 04:30 | 05:17 | 06:19 | 07:19 | 07:24 | 08:26 | | | |
| | 15:49 | 16:47 | 20 | 15:56 (C3) | 17:49 | 19:55 | 20:57 | 21:54 | 22:08 | 21:25 | 20:11 | 18:50 | 16:33 | 15:43 | | |
| 3 | 08:50 | 08:10 | 15:37 (C3) | 07:05 | 06:43 | 05:27 | 04:33 | 04:31 | 05:19 | 06:21 | 07:21 | 07:27 | 08:27 | | | |
| | 15:50 | 16:49 | 19 | 15:56 (C3) | 17:51 | 19:57 | 20:59 | 21:55 | 22:08 | 21:23 | 20:08 | 18:48 | 16:31 | 15:43 | | |
| 4 | 08:49 | 08:08 | 15:38 (C3) | 07:03 | 06:40 | 05:25 | 04:32 | 04:32 | 05:21 | 06:23 | 07:23 | 07:29 | 15:13 (C3) | 08:29 | | |
| | 15:51 | 16:51 | 17 | 15:55 (C3) | 17:54 | 19:59 | 21:01 | 21:56 | 22:07 | 21:21 | 20:06 | 18:45 | 16:29 | 7 | 15:20 (C3) | 15:42 |
| 5 | 08:49 | 08:06 | 15:38 (C3) | 07:00 | 06:38 | 05:23 | 04:31 | 04:33 | 05:23 | 06:25 | 07:25 | 07:31 | 15:10 (C3) | 08:30 | | |
| | 15:53 | 16:54 | 15 | 15:53 (C3) | 17:56 | 20:01 | 21:03 | 21:58 | 22:06 | 21:19 | 20:03 | 18:42 | 16:27 | 12 | 15:22 (C3) | 15:41 |
| 6 | 08:49 | 08:04 | 15:41 (C3) | 06:57 | 06:35 | 05:21 | 04:30 | 04:34 | 05:25 | 06:27 | 07:27 | 07:33 | 15:09 (C3) | 08:32 | | |
| | 15:54 | 16:56 | 11 | 15:52 (C3) | 17:58 | 20:03 | 21:05 | 21:59 | 22:06 | 21:17 | 20:00 | 18:40 | 16:25 | 15 | 15:24 (C3) | 15:40 |
| 7 | 08:48 | 08:02 | 15:44 (C3) | 06:55 | 06:32 | 05:18 | 04:29 | 04:35 | 05:27 | 06:29 | 07:29 | 07:35 | 15:08 (C3) | 08:33 | | |
| | 15:56 | 16:58 | 6 | 15:50 (C3) | 18:00 | 20:05 | 21:07 | 22:00 | 22:05 | 21:15 | 19:58 | 18:37 | 16:22 | 17 | 15:25 (C3) | 15:40 |
| 8 | 08:47 | 08:00 | | 06:52 | 06:30 | 05:16 | 04:29 | 04:36 | 05:29 | 06:31 | 07:31 | 07:37 | 15:06 (C3) | 08:35 | | |
| | 15:57 | 17:00 | | 18:02 | 20:07 | 21:09 | 22:01 | 22:04 | 21:13 | 19:55 | 18:35 | 16:20 | 20 | 15:26 (C3) | 15:39 | |
| 9 | 08:47 | 07:58 | | 06:50 | 06:27 | 05:14 | 04:28 | 04:37 | 05:31 | 06:33 | 07:33 | 07:40 | 15:06 (C3) | 08:36 | | |
| | 15:59 | 17:03 | | 18:04 | 20:09 | 21:11 | 22:02 | 22:03 | 21:10 | 19:52 | 18:32 | 16:18 | 21 | 15:27 (C3) | 15:39 | |
| 10 | 08:46 | 07:56 | | 06:47 | 06:24 | 05:12 | 04:27 | 04:39 | 05:33 | 06:35 | 07:35 | 07:42 | 15:06 (C3) | 08:38 | | |
| | 16:00 | 17:05 | | 18:06 | 20:11 | 21:13 | 22:03 | 22:02 | 21:08 | 19:50 | 18:29 | 16:16 | 21 | 15:27 (C3) | 15:38 | |
| 11 | 08:45 | 07:54 | | 06:44 | 06:22 | 05:10 | 04:27 | 04:40 | 05:35 | 06:37 | 07:37 | 07:44 | 15:06 (C3) | 08:39 | | |
| | 16:02 | 17:07 | | 18:09 | 20:13 | 21:15 | 22:04 | 22:01 | 21:06 | 19:47 | 18:27 | 16:14 | 22 | 15:28 (C3) | 15:38 | |
| 12 | 08:44 | 07:51 | | 06:42 | 06:19 | 05:08 | 04:26 | 04:41 | 05:37 | 06:39 | 07:39 | 07:46 | 15:06 (C3) | 08:40 | | |
| | 16:04 | 17:09 | | 18:11 | 20:15 | 21:17 | 22:05 | 22:00 | 21:03 | 19:44 | 18:24 | 16:13 | 22 | 15:28 (C3) | 15:38 | |
| 13 | 08:43 | 07:49 | | 06:39 | 06:17 | 05:06 | 04:26 | 04:43 | 05:39 | 06:41 | 07:42 | 07:48 | 15:06 (C3) | 08:41 | | |
| | 16:06 | 17:12 | | 18:13 | 20:18 | 21:19 | 22:06 | 21:59 | 21:01 | 19:42 | 18:22 | 16:11 | 21 | 15:27 (C3) | 15:37 | |
| 14 | 08:42 | 07:47 | | 06:36 | 06:14 | 05:04 | 04:25 | 04:44 | 05:41 | 06:43 | 07:44 | 07:50 | 15:06 (C3) | 08:42 | | |
| | 16:07 | 17:14 | | 18:15 | 20:20 | 21:21 | 22:06 | 21:58 | 20:59 | 19:39 | 18:19 | 16:09 | 22 | 15:28 (C3) | 15:37 | |
| 15 | 08:41 | 07:45 | | 06:34 | 06:11 | 05:02 | 04:25 | 04:46 | 05:43 | 06:45 | 07:46 | 07:52 | 15:06 (C3) | 08:43 | | |
| | 16:09 | 17:16 | | 18:17 | 20:22 | 21:23 | 22:07 | 21:56 | 20:56 | 19:36 | 18:16 | 16:07 | 22 | 15:28 (C3) | 15:37 | |
| 16 | 08:40 | 07:42 | | 06:31 | 06:09 | 05:00 | 04:25 | 04:47 | 05:45 | 06:47 | 07:48 | 07:55 | 15:08 (C3) | 08:44 | | |
| | 16:11 | 17:18 | | 18:19 | 20:24 | 21:25 | 22:08 | 21:55 | 20:54 | 19:34 | 18:14 | 16:05 | 20 | 15:28 (C3) | 15:37 | |
| 17 | 08:38 | 07:40 | | 06:28 | 06:06 | 04:58 | 04:25 | 04:49 | 05:47 | 06:49 | 07:50 | 07:57 | 15:08 (C3) | 08:45 | | |
| | 16:13 | 17:21 | | 18:21 | 20:26 | 21:27 | 22:08 | 21:54 | 20:52 | 19:31 | 18:11 | 16:03 | 18 | 15:26 (C3) | 15:37 | |
| 18 | 08:37 | 07:38 | | 06:26 | 06:04 | 04:56 | 04:24 | 04:50 | 05:49 | 06:51 | 07:52 | 07:59 | 15:08 (C3) | 08:46 | | |
| | 16:15 | 17:23 | | 18:23 | 20:28 | 21:29 | 22:09 | 21:52 | 20:49 | 19:28 | 18:09 | 16:02 | 16 | 15:24 (C3) | 15:37 | |
| 19 | 08:36 | 07:35 | | 06:23 | 06:01 | 04:54 | 04:24 | 04:52 | 05:51 | 06:53 | 07:54 | 08:01 | 15:10 (C3) | 08:47 | | |
| | 16:17 | 17:25 | | 18:25 | 20:30 | 21:31 | 22:09 | 21:51 | 20:47 | 19:25 | 18:06 | 16:00 | 13 | 15:23 (C3) | 15:38 | |
| 20 | 08:34 | 15:37 (C3) | 07:33 | 06:20 | 05:59 | 04:53 | 04:25 | 04:53 | 05:53 | 06:55 | 07:56 | 08:03 | 15:11 (C3) | 08:48 | | |
| | 16:19 | 3 | 15:40 (C3) | 17:27 | 18:28 | 20:32 | 21:33 | 22:09 | 21:49 | 20:44 | 19:23 | 18:04 | 15:59 | 10 | 15:21 (C3) | 15:38 |
| 21 | 08:33 | 15:37 (C3) | 07:30 | 06:18 | 05:56 | 04:51 | 04:25 | 04:55 | 05:55 | 06:57 | 07:58 | 08:05 | 15:12 (C3) | 08:48 | | |
| | 16:21 | 6 | 15:43 (C3) | 17:29 | 18:30 | 20:34 | 21:34 | 22:10 | 21:48 | 20:42 | 19:20 | 18:01 | 15:57 | 7 | 15:19 (C3) | 15:38 |
| 22 | 08:32 | 15:36 (C3) | 07:28 | 06:15 | 05:54 | 04:49 | 04:25 | 04:57 | 05:57 | 06:59 | 08:01 | 08:07 | 15:13 (C3) | 08:49 | | |
| | 16:23 | 10 | 15:46 (C3) | 17:32 | 18:32 | 20:36 | 21:36 | 22:10 | 21:46 | 20:39 | 19:17 | 17:59 | 15:56 | 4 | 15:17 (C3) | 15:39 |
| 23 | 08:30 | 15:35 (C3) | 07:25 | 06:12 | 05:51 | 04:48 | 04:25 | 04:59 | 05:59 | 07:01 | 08:03 | 08:09 | | | | 08:49 |
| | 16:25 | 13 | 15:48 (C3) | 17:34 | 18:34 | 20:38 | 21:38 | 22:10 | 21:44 | 20:37 | 19:15 | 17:56 | 15:54 | | | 15:39 |
| 24 | 08:28 | 15:34 (C3) | 07:23 | 06:10 | 05:49 | 04:46 | 04:25 | 05:00 | 06:01 | 07:03 | 08:05 | 08:11 | | | | 08:50 |
| | 16:27 | 16 | 15:50 (C3) | 17:36 | 18:36 | 20:41 | 21:40 | 22:10 | 21:43 | 20:34 | 19:12 | 17:54 | 15:53 | | | 15:40 |
| 25 | 08:27 | 15:34 (C3) | 07:20 | 06:07 | 05:46 | 04:45 | 04:26 | 05:02 | 06:03 | 07:05 | 08:07 | 08:13 | | | | 08:50 |
| | 16:29 | 18 | 15:52 (C3) | 17:38 | 18:38 | 20:43 | 21:41 | 22:10 | 21:41 | 20:32 | 19:09 | 16:52 | 15:51 | | | 15:41 |
| 26 | 08:25 | 15:34 (C3) | 07:18 | 06:04 | 05:44 | 04:43 | 04:26 | 05:04 | 06:05 | 07:07 | 08:09 | 08:15 | | | | 08:50 |
| | 16:32 | 20 | 15:54 (C3) | 17:40 | 18:40 | 20:45 | 21:43 | 22:10 | 21:39 | 20:29 | 19:07 | 16:49 | 15:50 | | | 15:41 |
| 27 | 08:24 | 15:33 (C3) | 07:15 | 06:02 | 05:41 | 04:42 | 04:27 | 05:06 | 06:07 | 07:09 | 08:11 | 08:17 | | | | 08:51 |
| | 16:34 | 22 | 15:55 (C3) | 17:43 | 18:42 | 20:47 | 21:45 | 22:10 | 21:37 | 20:27 | 19:04 | 16:47 | 15:49 | | | 15:42 |
| 28 | 08:22 | 15:33 (C3) | 07:13 | 05:59 | 05:39 | 04:40 | 04:27 | 05:08 | 06:09 | 07:11 | 08:13 | 08:19 | | | | 08:51 |
| | 16:36 | 22 | 15:55 (C3) | 17:45 | 18:44 | 20:49 | 21:46 | 22:10 | 21:35 | 20:24 | 19:01 | 16:45 | 15:48 | | | 15:43 |
| 29 | 08:20 | 15:34 (C3) | | 06:56 | 05:37 | 04:39 | 04:28 | 05:09 | 06:11 | 07:13 | 08:15 | 08:20 | | | | 08:51 |
| | 16:38 | 22 | 15:56 (C3) | | 19:46 | 20:51 | 21:48 | 22:09 | 21:33 | 20:21 | 18:58 | 16:42 | 15:46 | | | 15:44 |
| 30 | 08:18 | 15:34 (C3) | | 06:54 | 05:34 | 04:38 | 04:29 | 05:11 | 06:13 | 07:15 | 08:17 | 08:22 | | | | 08:51 |
| | 16:40 | 22 | 15:56 (C3) | | 19:48 | 20:53 | 21:49 | 22:09 | 21:32 | 20:19 | 18:56 | 16:40 | 15:45 | | | 15:45 |
| 31 | 08:16 | 15:34 (C3) | | 06:51 | | 04:36 | | 05:13 | 06:15 | | 07:20 | | | | | 08:51 |
| | 16:42 | 22 | 15:56 (C3) | | 19:50 | 21:51 | | 21:30 | 20:16 | | 16:38 | | | | | 15:46 |
| Potential sun hours | 235 | 266 | | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | | | | 216 |
| Total, worst case | 196 | 109 | | | | | | | | | | | 310 | | | |
| Sun reduction | 0.13 | 0.20 | | | | | | | | | | | 0.08 | | | |
| Oper. time red. | 0.98 | 0.98 | | | | | | | | | | | 0.98 | | | |
| Wind dir. red. | 0.66 | 0.66 | | | | | | | | | | | 0.66 | | | |
| Total reduction | 0.09 | 0.13 | | | | | | | | | | | 0.05 | | | |
| Total, real | 17 | 14 | | | | | | | | | | | 16 | | | |

Table layout: For each day in each month the following matrix apply

Day in month Sun rise (hh:mm) Sun set (hh:mm) Minutes with flicker First time (hh:mm) with flicker Last time (hh:mm) with flicker (WTG causing flicker first time) (WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Malkalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (64)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Masanpurvs - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (192)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:12 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:51 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:05 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:26 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (46)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 07:37 (C13) 19:53 | 06:49 20:56 | 05:33 21:53 | 04:36 22:09 | 04:30 21:28 | 05:16 20:14 | 06:17 18:54 | 07:17 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 07:34 (C13) 19:55 | 06:46 20:58 | 05:30 21:54 | 04:35 22:09 | 04:31 21:26 | 05:18 20:11 | 06:19 18:51 | 07:19 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 07:34 (C13) 19:57 | 06:44 21:00 | 05:28 21:55 | 04:34 22:08 | 04:32 21:24 | 05:20 20:09 | 06:21 18:48 | 07:21 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 07:33 (C13) 19:59 | 06:41 21:02 | 05:26 21:57 | 04:33 22:07 | 04:33 21:22 | 05:22 20:06 | 06:23 18:46 | 07:23 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 07:33 (C13) 20:01 | 06:38 21:04 | 05:24 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 08:15 (C13) 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 07:35 (C13) 20:03 | 06:36 21:06 | 05:21 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 08:12 (C13) 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 07:35 (C13) 20:06 | 06:33 21:08 | 05:19 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 08:10 (C13) 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 07:37 (C13) 20:08 | 06:30 21:10 | 05:17 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:10 (C13) 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 07:47 (C13) 20:08 | 06:28 21:10 | 05:15 22:01 | 04:38 22:04 | 05:31 21:13 | 06:33 19:56 | 07:34 18:35 | 08:09 (C13) 16:21 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:11 | 06:35 19:53 | 07:36 18:33 | 08:08 (C13) 16:19 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 08:08 (C13) 16:17 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:09 (C13) 16:15 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:11 (C13) 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:12 (C13) 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:16 (C13) 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 08:18 (C13) 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:22 (C13) 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 08:24 (C13) 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:26 (C13) 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:28 (C13) 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:30 (C13) 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:32 (C13) 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:34 (C13) 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:36 (C13) 15:53 | 08:51 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:38 (C13) 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:39 (C13) 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:40 (C13) 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:41 (C13) 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:11 17:49 | 05:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:42 (C13) 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | 07:11 17:51 | 05:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:43 (C13) 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 07:11 17:51 | 05:52 19:51 | 05:34 20:53 | 04:37 21:51 | 04:29 22:10 | 05:14 21:30 | 06:15 20:17 | 07:20 16:38 | 07:23 15:47 | 08:44 (C13) 15:47 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | 30 | 131 | | | | | | | 167 | | |
| Oper. time red. | | 0.20 | 0.41 | | | | | | | 0.26 | | |
| Wind dir. red. | | 0.98 | 0.98 | | | | | | | 0.98 | | |
| Total reduction | | 0.62 | 0.62 | | | | | | | 0.62 | | |
| Total, real | | 0.12 | 0.25 | | | | | | | 0.16 | | |
| | | 4 | 33 | | | | | | | 26 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 2 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (67)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 4 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (44)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 5 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (131)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 7 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (87)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 8 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (90)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|-------------------------|----------------|----------------------|----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 16:45 | 08:15 16:45 | 07:11 17:48 8 | 07:37 (C13) 19:53 | 06:49 20:56 | 05:33 21:53 | 04:36 22:09 | 04:30 21:28 | 05:16 20:14 | 06:17 18:54 | 07:17 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 16:48 | 08:13 16:48 | 07:08 17:50 11 | 07:34 (C13) 19:55 | 06:46 20:58 | 05:30 21:54 | 04:35 22:09 | 04:31 21:26 | 05:18 20:11 | 06:19 18:51 | 07:19 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 16:50 | 08:11 16:50 | 07:06 17:52 14 | 07:32 (C13) 19:57 | 06:44 21:00 | 05:28 21:55 | 04:34 22:08 | 04:32 21:24 | 05:20 20:09 | 06:21 18:48 | 07:21 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 16:52 | 08:09 16:52 | 07:03 17:54 17 | 07:29 (C13) 19:59 | 06:41 21:02 | 05:26 21:57 | 04:33 22:07 | 04:33 21:22 | 05:22 20:06 | 06:23 18:46 | 07:23 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 16:54 | 08:07 16:54 | 07:01 17:56 20 | 07:26 (C13) 19:59 | 06:38 21:04 | 05:24 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 08:24 16:27 | 09:31 15:42 |
| 6 | 08:49 15:55 16:56 | 08:05 16:56 | 06:58 17:58 19 | 07:27 (C13) 19:59 | 06:36 21:06 | 05:21 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 08:31 16:25 | 09:34 15:41 |
| 7 | 08:48 15:56 16:59 | 08:03 16:59 | 06:55 18:01 18 | 07:27 (C13) 19:59 | 06:33 21:08 | 05:19 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 08:33 16:23 | 09:36 15:40 |
| 8 | 08:48 15:58 17:01 | 08:01 17:01 | 06:53 18:03 17 | 07:27 (C13) 19:59 | 06:30 21:10 | 05:17 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:37 16:21 | 09:38 15:40 |
| 9 | 08:47 15:58 17:03 | 07:58 17:03 | 06:50 18:05 16 | 07:28 (C13) 19:59 | 06:28 21:12 | 05:15 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 08:39 16:19 | 09:40 15:39 |
| 10 | 08:46 16:01 17:05 | 07:56 17:05 | 06:48 18:07 13 | 07:29 (C13) 19:59 | 06:25 21:14 | 05:13 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 08:41 16:17 | 09:42 15:39 |
| 11 | 08:45 16:03 17:08 | 07:54 17:08 | 06:45 18:09 8 | 07:31 (C13) 19:59 | 06:22 21:16 | 05:11 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 08:43 16:15 | 09:44 15:39 |
| 12 | 08:44 16:05 17:10 | 07:52 17:10 | 06:42 18:11 | 07:39 (C13) | 06:20 21:18 | 05:09 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:45 16:13 | 09:45 15:38 |
| 13 | 08:43 16:06 17:12 | 07:50 17:12 | 06:40 18:13 | | 06:17 21:20 | 05:07 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:46 16:11 | 09:46 15:38 |
| 14 | 08:42 16:08 17:14 | 07:47 17:14 | 06:37 18:15 | | 06:15 21:22 | 05:05 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:47 16:09 | 09:47 15:38 |
| 15 | 08:41 16:10 17:17 | 07:45 17:17 | 06:34 18:18 | | 06:12 21:24 | 05:03 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:49 16:08 | 09:48 15:38 |
| 16 | 08:40 16:12 17:19 | 07:43 17:19 | 06:32 18:20 | | 06:09 21:26 | 05:01 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 08:51 16:06 | 09:49 15:38 |
| 17 | 08:39 16:14 17:21 | 07:40 17:21 | 06:29 18:22 | | 06:07 21:27 | 04:59 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:52 16:04 | 09:50 15:38 |
| 18 | 08:38 16:16 17:23 | 07:38 17:23 | 06:26 18:24 | | 06:04 21:29 | 04:57 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 08:53 16:03 | 09:51 15:38 |
| 19 | 08:36 16:18 17:26 | 07:36 17:26 | 06:24 18:26 | | 06:02 21:31 | 04:55 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:54 16:01 | 09:52 15:38 |
| 20 | 08:35 16:20 17:28 | 07:33 17:28 | 06:21 18:28 | | 05:59 21:33 | 04:53 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:55 15:59 | 09:53 15:39 |
| 21 | 08:33 16:22 17:30 | 07:31 17:30 | 06:18 18:30 | | 05:57 21:35 | 04:52 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:56 15:58 | 09:54 15:39 |
| 22 | 08:32 16:24 17:32 | 07:28 17:32 | 06:16 18:32 | | 05:54 21:37 | 04:50 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:57 15:56 | 09:55 15:40 |
| 23 | 08:30 16:26 17:34 | 07:26 17:34 | 06:13 18:34 | | 05:52 21:38 | 04:48 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:59 15:55 | 09:56 15:40 |
| 24 | 08:29 16:28 17:37 | 07:23 17:37 | 06:10 18:36 | | 05:49 21:40 | 04:47 22:10 | 04:56 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:61 15:53 | 09:57 15:41 |
| 25 | 08:27 16:30 17:39 | 07:21 17:39 | 06:08 18:39 | | 05:47 21:42 | 04:45 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:62 15:52 | 09:58 15:41 |
| 26 | 08:26 16:32 17:41 | 07:18 17:41 | 06:05 18:41 | | 05:44 21:43 | 04:44 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:09 17:50 | 08:63 15:51 | 09:59 15:42 |
| 27 | 08:24 16:34 17:43 | 07:16 17:43 | 06:02 18:43 | | 05:42 21:45 | 04:42 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:11 17:48 | 08:64 15:49 | 09:60 15:43 |
| 28 | 08:22 16:37 17:45 | 07:13 17:45 | 06:00 18:45 | 07:40 (C13) 07:43 (C13) | 05:40 21:47 | 04:41 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:13 17:45 | 08:65 15:48 | 09:61 15:44 |
| 29 | 08:20 16:39 17:49 | | 05:57 19:47 | | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:15 17:43 | 08:66 15:47 | 09:62 15:45 |
| 30 | 08:19 16:41 17:51 | | 05:54 19:49 | | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:17 17:41 | 08:67 15:46 | 09:63 15:46 |
| 31 | 08:17 16:43 | | 05:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 08:19 16:38 | 08:68 15:47 | 09:64 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | 0.20 | 0.41 | | | | | | | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | | | | | | | 0.98 | | |
| Wind dir. red. | | 0.62 | 0.62 | | | | | | | 0.62 | | |
| Total reduction | | 0.12 | 0.25 | | | | | | | 0.16 | | |
| Total, real | | 0 | 40 | | | | | | | 26 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Nomales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (160)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ogu purvs - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (103)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:49 19:53 | 05:32 20:55 | 04:35 21:53 | 04:30 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:26 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:43 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:26 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:39 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:02 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:41 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ozoli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (1)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:44 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:24 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:28 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:32 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:12 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:37 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:26 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:00 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:08 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:10 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ozolmuiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (148)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:06 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ozolsalina - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (106)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:58 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:06 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: OŠ ini (kad. apz. 76860060068001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (218)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:16 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:40 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: OŠ ini (kad. apz. 76860060068006) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (223)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:40 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Paegli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (41)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Palejas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (188)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| 1 | 08:51 | 08:15 | 07:11 | 06:49 | 05:33 | 04:36 | 04:30 | 05:16 | 06:17 | 07:17 | 07:23 | 08:24 |
| | 15:48 | 16:45 | 17:48 | 19:53 | 20:56 | 21:53 | 22:09 | 21:28 | 20:14 | 18:54 | 16:36 | 15:45 |
| 2 | 08:51 | 08:13 | 07:08 | 06:46 | 05:30 | 04:35 | 04:31 | 05:18 | 06:19 | 07:19 | 07:25 | 08:26 |
| | 15:50 | 16:48 | 17:50 | 19:55 | 20:58 | 21:54 | 22:09 | 21:26 | 20:11 | 18:51 | 16:34 | 15:44 |
| 3 | 08:50 | 08:11 | 07:06 | 06:44 | 05:28 | 04:34 | 04:32 | 05:20 | 06:21 | 07:21 | 07:27 | 08:28 |
| | 15:51 | 16:50 | 17:52 | 19:57 | 21:00 | 21:55 | 22:08 | 21:24 | 20:09 | 18:48 | 16:32 | 15:43 |
| 4 | 08:50 | 08:09 | 07:03 | 06:41 | 05:26 | 04:33 | 04:33 | 05:22 | 06:23 | 07:24 | 07:29 | 08:29 |
| | 15:52 | 16:52 | 17:54 | 19:59 | 21:02 | 21:57 | 22:07 | 21:22 | 20:06 | 18:46 | 16:30 | 15:43 |
| 5 | 08:49 | 08:07 | 07:01 | 06:38 | 05:24 | 04:32 | 04:34 | 05:24 | 06:25 | 07:26 | 07:31 | 08:31 |
| | 15:54 | 16:54 | 17:56 | 20:01 | 21:04 | 21:58 | 22:07 | 21:20 | 20:04 | 18:43 | 16:27 | 15:42 |
| 6 | 08:49 | 08:05 | 06:58 | 06:36 | 05:21 | 04:31 | 04:35 | 05:25 | 06:27 | 07:28 | 07:34 | 08:32 |
| | 15:55 | 16:57 | 17:58 | 20:04 | 21:06 | 21:59 | 22:06 | 21:17 | 20:01 | 18:40 | 16:25 | 15:41 |
| 7 | 08:48 | 08:03 | 06:55 | 06:33 | 05:19 | 04:30 | 04:36 | 05:27 | 06:29 | 07:30 | 07:36 | 08:34 |
| | 15:56 | 16:59 | 18:01 | 20:06 | 21:08 | 22:00 | 22:05 | 21:15 | 19:58 | 18:38 | 16:23 | 15:40 |
| 8 | 08:48 | 08:01 | 06:53 | 06:30 | 05:17 | 04:29 | 04:37 | 05:29 | 06:31 | 07:32 | 07:38 | 08:35 |
| | 15:58 | 17:01 | 18:03 | 20:08 | 21:10 | 22:01 | 22:04 | 21:13 | 19:56 | 18:35 | 16:21 | 15:40 |
| 9 | 08:47 | 07:58 | 06:50 | 06:28 | 05:15 | 04:29 | 04:38 | 05:31 | 06:33 | 07:34 | 07:40 | 08:37 |
| | 16:00 | 17:03 | 18:05 | 20:10 | 21:12 | 22:02 | 22:03 | 21:11 | 19:53 | 18:33 | 16:19 | 15:39 |
| 10 | 08:46 | 07:56 | 06:48 | 06:25 | 05:13 | 04:28 | 04:40 | 05:33 | 06:35 | 07:36 | 07:42 | 08:38 |
| | 16:01 | 17:06 | 18:07 | 20:12 | 21:14 | 22:03 | 22:02 | 21:09 | 19:50 | 18:30 | 16:17 | 15:39 |
| 11 | 08:45 | 07:54 | 06:45 | 06:22 | 05:11 | 04:27 | 04:41 | 05:35 | 06:37 | 07:38 | 07:44 | 08:39 |
| | 16:03 | 17:08 | 18:09 | 20:14 | 21:16 | 22:04 | 22:01 | 21:06 | 19:48 | 18:27 | 16:15 | 15:39 |
| 12 | 08:44 | 07:52 | 06:42 | 06:20 | 05:09 | 04:27 | 04:42 | 05:37 | 06:39 | 07:40 | 07:47 | 08:41 |
| | 16:05 | 17:10 | 18:11 | 20:16 | 21:18 | 22:05 | 22:00 | 21:04 | 19:45 | 18:25 | 16:13 | 15:38 |
| 13 | 08:43 | 07:50 | 06:40 | 06:17 | 05:07 | 04:27 | 04:44 | 05:39 | 06:41 | 07:42 | 07:49 | 08:42 |
| | 16:06 | 17:12 | 18:13 | 20:18 | 21:20 | 22:06 | 21:59 | 21:02 | 19:42 | 18:22 | 16:11 | 15:38 |
| 14 | 08:42 | 07:47 | 06:37 | 06:15 | 05:05 | 04:26 | 04:45 | 05:41 | 06:43 | 07:44 | 07:51 | 08:43 |
| | 16:08 | 17:14 | 18:16 | 20:20 | 21:22 | 22:07 | 21:58 | 20:59 | 19:39 | 18:20 | 16:10 | 15:38 |
| 15 | 08:41 | 07:45 | 06:34 | 06:12 | 05:03 | 04:26 | 04:46 | 05:43 | 06:45 | 07:46 | 07:53 | 08:44 |
| | 16:10 | 17:17 | 18:18 | 20:22 | 21:24 | 22:07 | 21:57 | 20:57 | 19:37 | 18:17 | 16:08 | 15:38 |
| 16 | 08:40 | 07:43 | 06:32 | 06:09 | 05:01 | 04:26 | 04:48 | 05:45 | 06:47 | 07:48 | 07:55 | 08:45 |
| | 16:12 | 17:19 | 18:20 | 20:24 | 21:26 | 22:08 | 21:55 | 20:55 | 19:34 | 18:15 | 16:06 | 15:38 |
| 17 | 08:39 | 07:40 | 06:29 | 06:07 | 04:59 | 04:25 | 04:49 | 05:47 | 06:49 | 07:50 | 07:57 | 08:46 |
| | 16:14 | 17:21 | 18:22 | 20:26 | 21:27 | 22:09 | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 15:38 |
| 18 | 08:38 | 07:38 | 06:26 | 06:04 | 04:57 | 04:25 | 04:51 | 05:49 | 06:51 | 07:53 | 07:59 | 08:46 |
| | 16:16 | 17:23 | 18:24 | 20:29 | 21:29 | 22:09 | 21:53 | 20:50 | 19:29 | 18:10 | 16:03 | 15:38 |
| 19 | 08:36 | 07:36 | 06:24 | 06:02 | 04:55 | 04:25 | 04:53 | 05:51 | 06:53 | 07:55 | 08:01 | 08:47 |
| | 16:18 | 17:26 | 18:26 | 20:31 | 21:31 | 22:09 | 21:51 | 20:47 | 19:26 | 18:07 | 16:01 | 15:38 |
| 20 | 08:35 | 07:33 | 06:21 | 05:59 | 04:54 | 04:25 | 04:54 | 05:53 | 06:55 | 07:57 | 08:03 | 08:48 |
| | 16:20 | 17:28 | 18:28 | 20:33 | 21:33 | 22:10 | 21:50 | 20:45 | 19:23 | 18:05 | 15:59 | 15:39 |
| 21 | 08:33 | 07:31 | 06:18 | 05:57 | 04:52 | 04:25 | 04:56 | 05:55 | 06:57 | 07:59 | 08:05 | 08:49 |
| | 16:22 | 17:30 | 18:30 | 20:35 | 21:35 | 22:10 | 21:48 | 20:42 | 19:21 | 18:02 | 15:58 | 15:39 |
| 22 | 08:32 | 07:28 | 06:16 | 05:54 | 04:50 | 04:26 | 04:58 | 05:57 | 06:59 | 08:01 | 08:07 | 08:49 |
| | 16:24 | 17:32 | 18:32 | 20:37 | 21:37 | 22:10 | 21:46 | 20:40 | 19:18 | 18:00 | 15:56 | 15:40 |
| 23 | 08:30 | 07:26 | 06:13 | 05:52 | 04:48 | 04:26 | 04:59 | 05:59 | 07:01 | 08:03 | 08:09 | 08:50 |
| | 16:26 | 17:35 | 18:34 | 20:39 | 21:38 | 22:10 | 21:45 | 20:37 | 19:15 | 17:57 | 15:55 | 15:40 |
| 24 | 08:29 | 07:23 | 06:10 | 05:49 | 04:47 | 04:26 | 05:01 | 06:01 | 07:03 | 08:05 | 08:11 | 08:50 |
| | 16:28 | 17:37 | 18:36 | 20:41 | 21:40 | 22:11 | 21:43 | 20:35 | 19:13 | 17:55 | 15:53 | 15:41 |
| 25 | 08:27 | 07:21 | 06:08 | 05:47 | 04:45 | 04:27 | 05:03 | 06:03 | 07:05 | 08:08 | 08:13 | 08:50 |
| | 16:30 | 17:39 | 18:39 | 20:43 | 21:42 | 22:11 | 21:41 | 20:32 | 19:10 | 17:52 | 15:52 | 15:41 |
| 26 | 08:26 | 07:18 | 06:05 | 05:45 | 04:44 | 04:27 | 05:05 | 06:05 | 07:07 | 08:10 | 08:15 | 08:51 |
| | 16:32 | 17:41 | 18:41 | 20:45 | 21:43 | 22:10 | 21:39 | 20:30 | 19:07 | 16:50 | 15:51 | 15:42 |
| 27 | 08:24 | 07:16 | 06:02 | 05:42 | 04:42 | 04:27 | 05:06 | 06:07 | 07:09 | 08:12 | 08:17 | 08:51 |
| | 16:34 | 17:43 | 18:43 | 20:47 | 21:45 | 22:10 | 21:38 | 20:27 | 19:04 | 16:48 | 15:50 | 15:43 |
| 28 | 08:22 | 07:13 | 06:00 | 05:40 | 04:41 | 04:28 | 05:08 | 06:09 | 07:11 | 08:14 | 08:19 | 08:51 |
| | 16:37 | 17:45 | 18:45 | 20:49 | 21:47 | 22:10 | 21:36 | 20:25 | 19:02 | 16:45 | 15:48 | 15:44 |
| 29 | 08:20 | | 06:57 | 05:37 | 04:40 | 04:29 | 05:10 | 06:11 | 07:13 | 08:16 | 08:21 | 08:51 |
| | 16:39 | | 19:47 | 20:51 | 21:48 | 22:10 | 21:34 | 20:22 | 18:59 | 16:43 | 15:47 | 15:45 |
| 30 | 08:19 | | 06:54 | 05:35 | 04:38 | 04:29 | 05:12 | 06:13 | 07:15 | 08:18 | 08:23 | 08:51 |
| | 16:41 | | 19:49 | 20:53 | 21:50 | 22:10 | 21:32 | 20:19 | 18:56 | 16:41 | 15:46 | 15:46 |
| 31 | 08:17 | | 06:52 | | 04:37 | | 05:14 | 06:15 | | 07:21 | | 08:51 |
| | 16:43 | | 19:51 | | 21:51 | | 21:30 | 20:17 | | 16:38 | | 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pilskalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (32)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:40 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:08 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales - Shadow Receptor: 1.0 × 1.0

Azimuth: 0.0° Slope: 90.0° (118)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | |
|---------------------|----------------|----------------|----------------|----------------------|---------------------|----------------|--------------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 16:38 (C13) 19:53 | 06:49 20:55 | 05:32 21:52 | 05:28 (C4) 05:56 (C4) |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 16:39 (C13) 19:55 | 06:46 20:57 | 05:30 21:54 | 05:27 (C4) 05:57 (C4) |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 16:41 (C13) 19:57 | 06:43 20:59 | 05:28 21:55 | 05:26 (C4) 05:58 (C4) |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 16:42 (C13) 19:59 | 06:41 21:01 | 05:26 21:56 | 05:26 (C4) 05:58 (C4) |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 16:46 (C13) 20:01 | 06:38 21:04 | 05:23 21:58 | 05:26 (C4) 06:00 (C4) |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 16:50 (C13) 20:03 | 20:01 21:06 | 05:21 21:59 | 05:25 (C4) 06:00 (C4) |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 05:25 (C4) 06:00 (C4) |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 07:20 (C8) 20:07 | 06:30 21:10 | 05:17 22:01 | 05:25 (C4) 06:02 (C4) |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 07:17 (C8) 20:10 | 06:27 21:12 | 05:15 22:02 | 05:25 (C4) 06:02 (C4) |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 07:15 (C8) 20:12 | 06:25 21:14 | 05:12 22:03 | 05:25 (C4) 06:03 (C4) |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:45 18:09 | 07:13 (C8) 20:14 | 06:22 21:16 | 05:10 22:04 | 05:24 (C4) 06:02 (C4) |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 07:11 (C8) 20:16 | 06:20 21:18 | 05:08 22:05 | 05:25 (C4) 06:03 (C4) |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 07:11 (C8) 20:18 | 06:17 21:20 | 05:06 22:06 | 05:25 (C4) 06:04 (C4) |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 07:09 (C8) 20:20 | 06:14 21:22 | 05:04 22:07 | 05:24 (C4) 06:03 (C4) |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 07:09 (C8) 20:22 | 06:12 21:23 | 05:02 22:07 | 05:24 (C4) 06:04 (C4) |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 07:09 (C8) 20:24 | 06:09 21:25 | 05:00 22:08 | 05:25 (C4) 06:04 (C4) |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 07:08 (C8) 20:26 | 06:07 21:27 | 04:59 22:08 | 05:25 (C4) 06:05 (C4) |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 07:08 (C8) 20:28 | 06:04 21:29 | 04:57 22:09 | 05:25 (C4) 06:05 (C4) |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 07:09 (C8) 20:30 | 06:02 21:31 | 04:55 22:09 | 05:25 (C4) 06:05 (C4) |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 07:09 (C8) 20:32 | 06:39 (C6) 21:33 | 04:53 22:10 | 05:25 (C4) 06:05 (C4) |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 07:09 (C8) 20:35 | 06:40 (C6) 21:35 | 04:52 22:10 | 05:25 (C4) 06:06 (C4) |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 07:10 (C8) 20:37 | 06:40 (C6) 21:36 | 04:50 22:10 | 05:26 (C4) 06:06 (C4) |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 07:12 (C8) 20:39 | 06:39 (C6) 21:38 | 04:48 22:10 | 05:26 (C4) 06:06 (C4) |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 07:13 (C8) 20:41 | 06:40 (C6) 21:40 | 04:47 22:10 | 05:26 (C4) 06:06 (C4) |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 07:26 (C8) 20:43 | 06:41 (C6) 21:42 | 04:45 22:10 | 05:27 (C4) 06:07 (C4) |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 06:41 (C6) 21:43 | 04:44 22:10 | 05:27 (C4) 06:07 (C4) |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 06:42 (C6) 21:45 | 04:42 22:10 | 05:28 (C4) 06:07 (C4) |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 06:43 (C6) 21:46 | 04:41 22:10 | 05:27 (C4) 06:07 (C4) |
| 29 | 08:20 16:38 | 07:11 17:43 | 05:57 18:47 | 05:37 20:51 | 06:44 (C6) 21:48 | 04:39 22:10 | 05:28 (C4) 06:07 (C4) |
| 30 | 08:18 16:41 | 07:09 17:44 | 05:54 18:49 | 05:35 20:53 | 06:47 (C6) 21:50 | 04:38 22:10 | 05:29 (C4) 06:07 (C4) |
| 31 | 08:16 16:43 | 07:07 17:45 | 05:51 18:51 | 05:33 20:51 | 06:57 (C6) 21:51 | 04:37 22:10 | 05:29 (C4) 06:07 (C4) |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | |
| Total, worst case | | 531 | 445 | 483 | 121 | 1128 | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | 0.57 | 0.56 | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | 0.64 | 0.63 | 0.66 | 0.67 | 0.67 | |
| Total reduction | | 0.12 | 0.25 | 0.32 | 0.37 | 0.36 | |
| Total, real | | 66 | 112 | 154 | 45 | 412 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (118)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------------|-----------------------------------|----------------|-----------------------------------|-------------------------------------|-------------------------------------|
| 1 | 04:30 22:09 39 | 05:28 (C4) 06:07 (C4) 21:28 | 06:17 20:14 | 06:49 (C6) 07:03 (C6) 18:53 | 07:17 08:15 (C8) 16:36 | 07:55 (C10) 08:14 (C10) 15:45 |
| 2 | 04:31 22:08 38 | 05:29 (C4) 06:07 (C4) 21:26 | 06:19 20:11 | 06:53 (C6) 06:59 (C6) 18:51 | 07:19 08:14 (C8) 16:34 | 07:57 (C10) 08:12 (C10) 15:44 |
| 3 | 04:32 22:08 37 | 05:30 (C4) 06:07 (C4) 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 08:12 (C8) 16:31 | 08:00 (C10) 08:11 (C10) 15:43 |
| 4 | 04:32 22:07 37 | 05:30 (C4) 06:07 (C4) 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 08:10 (C8) 16:29 | 08:02 (C10) 08:09 (C10) 15:42 |
| 5 | 04:33 22:07 36 | 05:31 (C4) 06:07 (C4) 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 08:07 (C8) 16:27 | 08:31 15:41 |
| 6 | 04:35 22:06 35 | 05:32 (C4) 06:07 (C4) 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 34 | 05:32 (C4) 06:06 (C4) 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 33 | 05:33 (C4) 06:06 (C4) 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 32 | 05:34 (C4) 06:06 (C4) 21:11 | 06:33 19:53 | 07:34 18:32 | 17:18 (C13) 17:27 (C13) 16:19 | 08:36 15:39 |
| 10 | 04:39 22:02 31 | 05:34 (C4) 06:05 (C4) 21:08 | 06:35 19:50 | 07:36 18:30 | 17:16 (C13) 17:31 (C13) 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 29 | 05:35 (C4) 06:04 (C4) 21:06 | 06:37 19:47 | 07:38 18:27 | 17:14 (C13) 17:32 (C13) 16:15 | 08:39 15:38 |
| 12 | 04:42 22:00 27 | 05:36 (C4) 06:03 (C4) 21:04 | 06:39 19:45 | 07:40 18:25 | 17:12 (C13) 17:32 (C13) 16:13 | 08:40 15:38 |
| 13 | 04:43 21:59 26 | 05:37 (C4) 06:03 (C4) 21:01 | 06:41 19:42 | 07:42 18:22 | 17:11 (C13) 17:33 (C13) 16:11 | 08:41 15:38 |
| 14 | 04:45 21:58 24 | 05:38 (C4) 06:02 (C4) 20:59 | 06:43 19:39 | 07:44 18:19 | 17:10 (C13) 17:33 (C13) 16:09 | 08:43 15:38 |
| 15 | 04:46 21:56 22 | 05:39 (C4) 06:01 (C4) 20:57 | 06:45 19:37 | 07:46 18:17 | 17:09 (C13) 17:33 (C13) 16:07 | 08:44 15:38 |
| 16 | 04:48 21:55 18 | 05:42 (C4) 06:00 (C4) 20:54 | 06:47 19:34 | 07:48 18:14 | 17:10 (C13) 17:33 (C13) 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 14 | 05:43 (C4) 05:57 (C4) 20:52 | 06:49 19:31 | 07:50 18:12 | 17:09 (C13) 17:33 (C13) 16:04 | 08:45 15:38 |
| 18 | 04:51 21:52 8 | 05:47 (C4) 05:55 (C4) 20:49 | 06:51 19:28 | 07:52 18:09 | 17:09 (C13) 17:32 (C13) 16:02 | 08:46 15:38 |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 16:02 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:11 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:13 17:46 | 08:19 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:15 17:44 | 08:21 15:47 | 08:51 15:44 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:17 17:42 | 08:23 15:46 | 08:51 15:45 |
| 31 | 05:14 21:30 | 06:15 20:16 | 07:17 18:54 | 08:19 17:40 | 08:25 15:45 | 08:51 15:45 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 520 | 468 | 299 | 655 | 52 | |
| Sun reduction | 0.49 | 0.50 | 0.43 | 0.26 | 0.08 | |
| Oper. time red. | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | 0.67 | 0.66 | 0.63 | 0.64 | 0.62 | |
| Total reduction | 0.32 | 0.32 | 0.26 | 0.16 | 0.05 | |
| Total, real | 167 | 149 | 78 | 106 | 3 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (117)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | |
|---------------------|----------------|----------------|----------------|----------------------|----------------|----------------|--------------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 16:37 (C13) 19:53 | 06:49 20:55 | 05:32 21:52 | 05:28 (C4) 06:02 (C4) |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 16:38 (C13) 19:55 | 06:46 20:57 | 05:30 21:54 | 05:28 (C4) 06:02 (C4) |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 16:40 (C13) 19:57 | 06:43 20:59 | 05:28 21:55 | 05:27 (C4) 06:03 (C4) |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 16:42 (C13) 19:59 | 06:41 21:01 | 05:26 21:56 | 05:27 (C4) 06:03 (C4) |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 16:52 (C13) 20:01 | 19:59 21:04 | 21:01 21:58 | 05:27 (C4) 06:05 (C4) |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:31 21:59 | 05:27 (C4) 06:05 (C4) |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 05:26 (C4) 06:05 (C4) |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 05:27 (C4) 06:06 (C4) |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:15 21:12 | 04:28 22:02 | 05:26 (C4) 06:06 (C4) |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:28 22:03 | 05:27 (C4) 06:07 (C4) |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 05:26 (C4) 06:07 (C4) |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:18 | 04:27 22:05 | 05:26 (C4) 06:07 (C4) |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 05:27 (C4) 06:08 (C4) |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:26 22:07 | 05:26 (C4) 06:08 (C4) |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 05:26 (C4) 06:08 (C4) |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 05:27 (C4) 06:09 (C4) |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 05:27 (C4) 06:09 (C4) |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 05:27 (C4) 06:09 (C4) |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 05:27 (C4) 06:09 (C4) |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 05:27 (C4) 06:10 (C4) |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 05:27 (C4) 06:10 (C4) |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:36 | 04:25 22:10 | 05:28 (C4) 06:11 (C4) |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 05:28 (C4) 06:11 (C4) |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:28 (C4) 06:10 (C4) |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:42 | 04:26 22:10 | 05:29 (C4) 06:11 (C4) |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:29 (C4) 06:11 (C4) |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:29 (C4) 06:11 (C4) |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:41 21:46 | 04:28 22:10 | 05:29 (C4) 06:11 (C4) |
| 29 | 08:20 16:38 | | 05:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:30 (C4) 06:11 (C4) |
| 30 | 08:18 16:41 | | 05:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:31 (C4) 06:12 (C4) |
| 31 | 08:16 16:43 | | 05:51 19:51 | | 04:37 21:51 | 04:29 22:09 | |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | |
| Total, worst case | | 537 | 432 | 470 | 205 | 1213 | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | 0.57 | 0.56 | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | 0.64 | 0.63 | 0.66 | 0.67 | 0.67 | |
| Total reduction | | 0.13 | 0.25 | 0.32 | 0.37 | 0.37 | |
| Total, real | | 67 | 109 | 150 | 76 | 443 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (117)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | | October | | | November | | | December | | |
|---------------------|-------|------------|------------|--------|------------|------------|-----------|----|------------|---------|----|-------------|----------|----|-------------|----------|--|--|
| 1 | 04:30 | 05:30 (C4) | 05:16 | | | | 06:17 | | 06:49 (C6) | 07:17 | | 07:51 (C8) | 07:22 | | 07:55 (C10) | 08:24 | | |
| | 22:09 | 41 | 06:11 (C4) | 21:28 | | | 20:14 | 17 | 07:06 (C6) | 18:53 | 25 | 08:16 (C8) | 16:36 | 18 | 08:13 (C10) | 15:45 | | |
| 2 | 04:31 | 05:31 (C4) | 05:17 | | | | 06:19 | | 06:51 (C6) | 07:19 | | 07:51 (C8) | 07:25 | | 07:57 (C10) | 08:26 | | |
| | 22:08 | 40 | 06:11 (C4) | 21:26 | | | 20:11 | 12 | 07:03 (C6) | 18:51 | 23 | 08:14 (C8) | 16:34 | 15 | 08:12 (C10) | 15:44 | | |
| 3 | 04:32 | 05:31 (C4) | 05:19 | | | | 06:21 | | | 07:21 | | 07:52 (C8) | 07:27 | | 08:00 (C10) | 08:27 | | |
| | 22:08 | 40 | 06:11 (C4) | 21:24 | | | 20:09 | | | 18:48 | 21 | 08:13 (C8) | 16:31 | 11 | 08:11 (C10) | 15:43 | | |
| 4 | 04:32 | 05:32 (C4) | 05:21 | | | | 06:23 | | | 07:23 | | 07:53 (C8) | 07:29 | | 08:02 (C10) | 08:29 | | |
| | 22:07 | 39 | 06:11 (C4) | 21:22 | | | 20:06 | | | 18:45 | 18 | 08:11 (C8) | 16:29 | 6 | 08:08 (C10) | 15:42 | | |
| 5 | 04:33 | 05:33 (C4) | 05:23 | | | | 06:25 | | | 07:25 | | 07:55 (C8) | 07:31 | | | 08:31 | | |
| | 22:07 | 38 | 06:11 (C4) | 21:19 | | | 20:03 | | | 18:43 | 14 | 08:09 (C8) | 16:27 | | | 15:41 | | |
| 6 | 04:35 | 05:33 (C4) | 05:25 | | | | 06:27 | | | 07:27 | | 07:58 (C8) | 07:33 | | | 08:32 | | |
| | 22:06 | 38 | 06:11 (C4) | 21:17 | | | 20:01 | | | 18:40 | 6 | 08:04 (C8) | 16:25 | | | 15:41 | | |
| 7 | 04:36 | 05:34 (C4) | 05:27 | | | | 06:29 | | | 07:29 | | | 07:35 | | | 08:34 | | |
| | 22:05 | 37 | 06:11 (C4) | 21:15 | | | 19:58 | | | 18:38 | | | 16:23 | | | 15:40 | | |
| 8 | 04:37 | 05:34 (C4) | 05:29 | | | | 06:31 | | | 07:31 | | | 07:38 | | | 08:35 | | |
| | 22:04 | 37 | 06:11 (C4) | 21:13 | | | 19:55 | | | 18:35 | | | 16:21 | | | 15:40 | | |
| 9 | 04:38 | 05:35 (C4) | 05:31 | | | | 06:33 | | | 07:34 | | 17:19 (C13) | 07:40 | | | 08:36 | | |
| | 22:03 | 36 | 06:11 (C4) | 21:11 | | | 19:53 | | | 18:32 | 5 | 17:24 (C13) | 16:19 | | | 15:39 | | |
| 10 | 04:39 | 05:35 (C4) | 05:33 | | | | 06:35 | | | 07:36 | | 17:15 (C13) | 07:42 | | | 08:38 | | |
| | 22:02 | 35 | 06:10 (C4) | 21:08 | | | 19:50 | | | 18:30 | 13 | 17:28 (C13) | 16:17 | | | 15:39 | | |
| 11 | 04:41 | 05:36 (C4) | 05:35 | | | | 06:37 | | | 07:38 | | 17:13 (C13) | 07:44 | | | 08:39 | | |
| | 22:01 | 33 | 06:09 (C4) | 21:06 | | | 19:47 | | | 18:27 | 16 | 17:29 (C13) | 16:15 | | | 15:38 | | |
| 12 | 04:42 | 05:36 (C4) | 05:37 | | | | 06:39 | | | 07:40 | | 17:11 (C13) | 07:46 | | | 08:40 | | |
| | 22:00 | 33 | 06:09 (C4) | 21:04 | | | 19:45 | | | 18:25 | 19 | 17:30 (C13) | 16:13 | | | 15:38 | | |
| 13 | 04:43 | 05:38 (C4) | 05:39 | | 07:00 (C6) | 06:41 | | | | 07:42 | | 17:10 (C13) | 07:48 | | | 08:41 | | |
| | 21:59 | 31 | 06:09 (C4) | 21:01 | 3 | 07:03 (C6) | 19:42 | | | 18:22 | 21 | 17:31 (C13) | 16:11 | | | 15:38 | | |
| 14 | 04:45 | 05:38 (C4) | 05:41 | | 06:56 (C6) | 06:43 | | | | 07:44 | | 17:09 (C13) | 07:51 | | | 08:43 | | |
| | 21:58 | 30 | 06:08 (C4) | 20:59 | 12 | 07:08 (C6) | 19:39 | | | 18:19 | 22 | 17:31 (C13) | 16:09 | | | 15:38 | | |
| 15 | 04:46 | 05:39 (C4) | 05:43 | | 06:53 (C6) | 06:45 | | | | 07:46 | | 17:09 (C13) | 07:53 | | | 08:44 | | |
| | 21:56 | 28 | 06:07 (C4) | 20:57 | 17 | 07:10 (C6) | 19:37 | | | 18:17 | 23 | 17:32 (C13) | 16:07 | | | 15:38 | | |
| 16 | 04:48 | 05:41 (C4) | 05:45 | | 06:52 (C6) | 06:47 | | | | 07:48 | | 17:08 (C13) | 07:55 | | | 08:45 | | |
| | 21:55 | 26 | 06:07 (C4) | 20:54 | 19 | 07:11 (C6) | 19:34 | | | 18:14 | 24 | 17:32 (C13) | 16:06 | | | 15:38 | | |
| 17 | 04:49 | 05:42 (C4) | 05:47 | | 06:49 (C6) | 06:49 | | | | 07:50 | | 17:08 (C13) | 07:57 | | | 08:45 | | |
| | 21:54 | 23 | 06:05 (C4) | 20:52 | 23 | 07:12 (C6) | 19:31 | | | 18:12 | 24 | 17:32 (C13) | 16:04 | | | 15:38 | | |
| 18 | 04:51 | 05:44 (C4) | 05:49 | | 06:48 (C6) | 06:51 | | | | 07:52 | | 17:07 (C13) | 07:59 | | | 08:46 | | |
| | 21:52 | 20 | 06:04 (C4) | 20:49 | 25 | 07:13 (C6) | 19:28 | | | 18:09 | 24 | 17:31 (C13) | 16:02 | | | 15:38 | | |
| 19 | 04:52 | 05:45 (C4) | 05:51 | | 06:48 (C6) | 06:53 | | | 08:03 (C8) | 07:54 | | 09:00 (C10) | 08:01 | | | 08:47 | | |
| | 21:51 | 17 | 06:02 (C4) | 20:47 | 25 | 07:13 (C6) | 19:26 | 7 | 08:10 (C8) | 18:07 | 31 | 17:30 (C13) | 16:01 | | | 15:38 | | |
| 20 | 04:54 | 05:48 (C4) | 05:53 | | 06:47 (C6) | 06:55 | | | 07:59 (C8) | 07:57 | | 08:58 (C10) | 08:03 | | | 08:48 | | |
| | 21:49 | 12 | 06:00 (C4) | 20:45 | 27 | 07:14 (C6) | 19:23 | 14 | 08:13 (C8) | 18:04 | 36 | 17:30 (C13) | 15:59 | | | 15:38 | | |
| 21 | 04:56 | | 05:55 | | 06:46 (C6) | 06:57 | | | 07:57 (C8) | 07:59 | | 08:56 (C10) | 08:05 | | | 08:48 | | |
| | 21:48 | | 20:42 | 28 | 07:14 (C6) | 19:20 | 18 | | 08:15 (C8) | 18:02 | 37 | 17:29 (C13) | 15:57 | | | 15:39 | | |
| 22 | 04:57 | | 05:57 | | 06:46 (C6) | 06:59 | | | 07:55 (C8) | 08:01 | | 08:54 (C10) | 08:07 | | | 08:49 | | |
| | 21:46 | | 20:40 | 28 | 07:14 (C6) | 19:18 | 21 | | 08:16 (C8) | 17:59 | 37 | 17:26 (C13) | 15:56 | | | 15:39 | | |
| 23 | 04:59 | | 05:59 | | 06:45 (C6) | 07:01 | | | 07:54 (C8) | 08:03 | | 08:54 (C10) | 08:09 | | | 08:49 | | |
| | 21:44 | | 20:37 | 29 | 07:14 (C6) | 19:15 | 23 | | 08:17 (C8) | 17:57 | 35 | 17:25 (C13) | 15:55 | | | 15:40 | | |
| 24 | 05:01 | | 06:01 | | 06:45 (C6) | 07:03 | | | 07:52 (C8) | 08:05 | | 08:53 (C10) | 08:11 | | | 08:50 | | |
| | 21:43 | | 20:34 | 29 | 07:14 (C6) | 19:12 | 25 | | 08:17 (C8) | 17:54 | 31 | 17:22 (C13) | 15:53 | | | 15:40 | | |
| 25 | 05:03 | | 06:03 | | 06:44 (C6) | 07:05 | | | 07:52 (C8) | 07:07 | | 07:52 (C10) | 08:13 | | | 08:50 | | |
| | 21:41 | | 20:32 | 29 | 07:13 (C6) | 19:10 | 26 | | 08:18 (C8) | 16:52 | 23 | 08:15 (C10) | 15:52 | | | 15:41 | | |
| 26 | 05:04 | | 06:05 | | 06:44 (C6) | 07:07 | | | 07:51 (C8) | 07:09 | | 07:52 (C10) | 08:15 | | | 08:50 | | |
| | 21:39 | | 20:29 | 29 | 07:13 (C6) | 19:07 | 27 | | 08:18 (C8) | 16:50 | 24 | 08:16 (C10) | 15:51 | | | 15:42 | | |
| 27 | 05:06 | | 06:07 | | 06:44 (C6) | 07:09 | | | 07:50 (C8) | 07:12 | | 07:52 (C10) | 08:17 | | | 08:51 | | |
| | 21:37 | | 20:27 | 28 | 07:12 (C6) | 19:04 | 27 | | 08:17 (C8) | 16:47 | 24 | 08:16 (C10) | 15:49 | | | 15:43 | | |
| 28 | 05:08 | | 06:09 | | 06:45 (C6) | 07:11 | | | 07:50 (C8) | 07:14 | | 07:52 (C10) | 08:19 | | | 08:51 | | |
| | 21:36 | | 20:24 | 26 | 07:11 (C6) | 19:02 | 27 | | 08:17 (C8) | 16:45 | 23 | 08:15 (C10) | 15:48 | | | 15:44 | | |
| 29 | 05:10 | | 06:11 | | 06:45 (C6) | 07:13 | | | 07:51 (C8) | 07:16 | | 07:53 (C10) | 08:21 | | | 08:51 | | |
| | 21:34 | | 20:22 | 25 | 07:10 (C6) | 18:59 | 26 | | 08:17 (C8) | 16:43 | 23 | 08:16 (C10) | 15:47 | | | 15:44 | | |
| 30 | 05:12 | | 06:13 | | 06:46 (C6) | 07:15 | | | 07:51 (C8) | 07:18 | | 07:53 (C10) | 08:22 | | | 08:51 | | |
| | 21:32 | | 20:19 | 23 | 07:09 (C6) | 18:56 | 26 | | 08:17 (C8) | 16:40 | 22 | 08:15 (C10) | 15:46 | | | 15:45 | | |
| 31 | 05:14 | | 06:15 | | 06:47 (C6) | | | | | 07:20 | | 07:53 (C10) | | | | 08:51 | | |
| | 21:30 | | 20:16 | 21 | 07:08 (C6) | | | | | 16:38 | 21 | 08:14 (C10) | | | | 15:47 | | |
| Potential sun hours | 529 | | 469 | | | | 385 | | | 324 | | | 247 | | | 216 | | |
| Total, worst case | | 634 | | 446 | | | 296 | | | 665 | | | 50 | | | | | |
| Sun reduction | | 0.49 | | 0.50 | | | 0.43 | | | 0.26 | | | 0.08 | | | | | |
| Oper. time red. | | 0.98 | | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | | | | |
| Wind dir. red. | | 0.67 | | 0.66 | | | 0.63 | | | 0.64 | | | 0.62 | | | | | |
| Total reduction | | 0.32 | | 0.32 | | | 0.26 | | | 0.16 | | | 0.05 | | | | | |
| Total, real | | 204 | | 142 | | | 77 | | | 107 | | | 2 | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (52)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (6)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (53)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas 3 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (14)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pumpuri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (199)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pumpuri (kad. apz. 56960040091) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (76)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pumpuri (kad. apz. 76860060095) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (198)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Purvini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (20)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:49 19:53 | 05:32 20:56 | 04:35 21:53 | 04:30 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:33 21:56 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:50 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:34 16:25 | 08:33 15:41 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:02 | 04:37 22:05 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:10 | 05:14 21:12 | 04:28 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:28 22:04 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:02 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:26 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:08 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:00 21:26 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:58 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:17 | 07:36 17:25 | 06:23 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:34 16:21 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:39 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:25 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:02 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:44 | 04:26 22:11 | 05:04 21:40 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:50 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:23 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Pucsilavas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (193)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:24 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:05 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:54 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:11 17:47 | 08:17 15:50 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Rasas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (94)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Rijasvecumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (206)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:47 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:42 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:04 16:56 | 06:57 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:22 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:09 | 04:28 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:20 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 04:37 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 06:24 20:11 | 05:12 21:13 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:17 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:37 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:06 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:16 | 07:53 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:28 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:03 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:24 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:25 | 06:01 20:30 | 04:54 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:20 18:28 | 05:59 20:32 | 04:53 21:33 | 04:24 22:10 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:55 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:56 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:24 16:34 | 07:15 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:07 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:21 | 07:13 18:58 | 07:16 16:42 | 08:20 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | 05:34 20:53 | 04:38 21:49 | 04:28 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Robež nieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (220)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:49 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:16 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:18 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:13 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:05 | 07:51 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:26 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Rudzati - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (139)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | | April | May | June | July | August | | September | October | November | December | |
|---------------------|----------------|----------------|----------------|----------------------------|----------------|----------------------------|----------------|----------------|----------------|----------------|-------------------------------|----------------------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | | 06:49 19:53 | 07:14 (C14) 07:26 (C14) | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:04 (C14) 07:23 (C14) | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | | 06:46 19:55 | 07:11 (C14) 07:27 (C14) | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:03 (C14) 07:24 (C14) | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | | 06:44 19:57 | 07:09 (C14) 07:28 (C14) | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:02 (C14) 07:24 (C14) | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | | 06:41 19:59 | 07:06 (C14) 07:28 (C14) | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:01 (C14) 07:25 (C14) | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | | 06:38 20:01 | 07:04 (C14) 07:28 (C14) | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:01 (C14) 07:25 (C14) | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | | 06:36 20:03 | 07:04 (C14) 07:28 (C14) | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:00 (C14) 07:24 (C14) | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | | 06:33 20:06 | 07:04 (C14) 07:28 (C14) | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 06:59 (C14) 07:23 (C14) | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | | 06:30 20:08 | 07:04 (C14) 07:28 (C14) | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:00 (C14) 07:22 (C14) | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | | 06:28 20:10 | 07:04 (C14) 07:26 (C14) | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:02 (C14) 07:21 (C14) | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | | 06:25 20:12 | 07:04 (C14) 07:25 (C14) | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:04 (C14) 07:20 (C14) | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | | 06:22 20:14 | 07:05 (C14) 07:24 (C14) | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:06 (C14) 07:19 (C14) | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | | 06:20 20:16 | 07:05 (C14) 07:22 (C14) | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:08 (C14) 07:17 (C14) | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | | 06:17 20:18 | 07:07 (C14) 07:21 (C14) | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:10 (C14) 07:13 (C14) | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | | 06:15 20:20 | 07:09 (C14) 07:17 (C14) | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:13 (C14) 07:44 | 18:22 18:20 | 16:11 16:10 | 15:38 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | | 06:12 20:22 | | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 18:25 18:17 | 16:13 16:08 | 15:38 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | | 06:09 20:24 | | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 18:26 18:15 | 16:15 16:06 | 15:38 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | | 06:07 20:26 | | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 18:27 18:12 | 16:19 16:04 | 15:38 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | | 06:04 20:28 | | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 18:28 18:10 | 16:19 16:03 | 15:38 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | | 06:02 20:31 | | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 18:30 18:07 | 16:21 16:01 | 15:38 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | | 05:59 20:33 | | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 18:33 18:05 | 16:22 15:59 | 15:38 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | | 05:57 20:35 | | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 18:35 18:02 | 16:23 15:58 | 15:38 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | | 05:54 20:37 | | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 18:37 18:00 | 16:24 15:56 | 15:40 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | | 05:52 20:39 | | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 18:39 18:05 | 16:25 15:55 | 15:40 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | | 05:49 20:41 | | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 18:41 18:08 | 16:26 15:53 | 15:41 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | | 05:47 20:43 | | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 18:43 18:15 | 16:27 15:52 | 15:41 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | | 05:45 20:45 | | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 18:45 18:17 | 16:28 15:51 | 15:42 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | | 05:42 20:47 | | 04:42 21:45 | 04:28 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 18:47 18:19 | 16:29 15:50 | 15:43 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | | 05:40 20:49 | | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 18:49 18:19 | 16:30 15:48 | 15:44 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | | 05:37 20:51 | | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 8 07:10 (C14) 07:18 (C14) | 07:13 18:59 | 08:16 17:43 | 18:51 18:21 | 15:45 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 07:19 (C14) | 05:35 20:53 | | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:07 (C14) 07:21 (C14) | 07:15 18:56 | 08:17 17:41 | 18:52 18:22 | 15:46 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | 07:17 (C14) 07:25 (C14) | 05:33 20:51 | | 04:37 21:51 | 04:29 22:10 | 05:14 21:30 | 06:15 20:17 | 14 07:05 (C14) 07:22 (C14) | 07:15 18:57 | 08:18 17:42 | 18:53 18:23 | 15:47 15:47 |
| Potential sun hours | 235 | 266 | 366 | | 426 | | 508 | 528 | 529 | 469 | 385 | 324 | 247 | 216 | |
| Total, worst case | | | | | 266 | | | | | 39 | 240 | | | | |
| Sun reduction | | | 10 | | 0.50 | | | | | 0.50 | 0.43 | | | | |
| Oper. time red. | | | 0.98 | | 0.98 | | | | | 0.98 | 0.98 | | | | |
| Wind dir. red. | | | 0.66 | | 0.66 | | | | | 0.66 | 0.66 | | | | |
| Total reduction | | | 0.26 | | 0.32 | | | | | 0.32 | 0.28 | | | | |
| Total, real | | | 3 | | 86 | | | | | 13 | 66 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Raceni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (184)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June |
|---------------------|---------|-------------|-------------|-------------|-------|-------------|-------|-------|------------|-------|
| 1 | 08:51 | 14:14 (C13) | 08:15 | 14:24 (C13) | 07:11 | 06:49 | | | 05:32 | 04:36 |
| | 15:48 | 29 | 14:43 (C13) | 16:45 | 31 | 14:55 (C13) | 17:47 | 19:53 | 20:55 | 21:53 |
| 2 | 08:50 | 14:15 (C13) | 08:13 | 14:25 (C13) | 07:08 | 06:46 | | | 05:30 | 04:35 |
| | 15:49 | 30 | 14:45 (C13) | 16:47 | 29 | 14:54 (C13) | 17:50 | 19:55 | 20:57 | 21:54 |
| 3 | 08:50 | 14:15 (C13) | 08:11 | 14:27 (C13) | 07:06 | 06:43 | | | 05:28 | 04:34 |
| | 15:51 | 30 | 14:45 (C13) | 16:50 | 26 | 14:53 (C13) | 17:52 | 19:57 | 20:59 | 21:55 |
| 4 | 08:50 | 14:14 (C13) | 08:09 | 14:29 (C13) | 07:03 | 06:41 | | | 05:26 | 04:33 |
| | 15:52 | 31 | 14:45 (C13) | 16:52 | 23 | 14:52 (C13) | 17:54 | 19:59 | 21:02 | 21:57 |
| 5 | 08:49 | 14:15 (C13) | 08:07 | 14:31 (C13) | 07:00 | 06:38 | | | 05:23 | 04:32 |
| | 15:53 | 32 | 14:47 (C13) | 16:54 | 19 | 14:50 (C13) | 17:56 | 20:01 | 21:04 | 21:58 |
| 6 | 08:49 | 14:15 (C13) | 08:05 | 14:33 (C13) | 06:58 | 06:35 | | | 05:21 | 04:31 |
| | 15:55 | 33 | 14:48 (C13) | 16:56 | 14 | 14:47 (C13) | 17:58 | 20:03 | 21:06 | 21:59 |
| 7 | 08:48 | 14:15 (C13) | 08:03 | | | 06:55 | 06:33 | | 05:19 | 04:30 |
| | 15:56 | 33 | 14:48 (C13) | 16:59 | | 18:00 | 20:05 | | 21:08 | 22:00 |
| 8 | 08:47 | 14:15 (C13) | 08:00 | | | 06:53 | 06:30 | | 05:17 | 04:29 |
| | 15:58 | 34 | 14:49 (C13) | 17:01 | | 18:03 | 20:07 | 4 | 06:59 (C4) | 21:10 |
| 9 | 08:47 | 14:15 (C13) | 07:58 | | | 06:50 | 06:27 | | 06:53 (C4) | 05:15 |
| | 15:59 | 35 | 14:50 (C13) | 17:03 | | 18:05 | 20:10 | 9 | 07:02 (C4) | 21:12 |
| 10 | 08:46 | 14:15 (C13) | 07:56 | | | 06:47 | 06:25 | | 06:50 (C4) | 05:13 |
| | 16:01 | 35 | 14:50 (C13) | 17:05 | | 18:07 | 20:12 | 13 | 07:03 (C4) | 21:14 |
| 11 | 08:45 | 14:16 (C13) | 07:54 | | | 06:45 | 06:22 | | 06:48 (C4) | 05:10 |
| | 16:03 | 35 | 14:51 (C13) | 17:08 | | 18:09 | 20:14 | 17 | 07:05 (C4) | 21:16 |
| 12 | 08:44 | 14:15 (C13) | 07:52 | | | 06:42 | 06:20 | | 06:45 (C4) | 05:08 |
| | 16:04 | 36 | 14:51 (C13) | 17:10 | | 18:11 | 20:16 | 20 | 07:05 (C4) | 21:18 |
| 13 | 08:43 | 14:15 (C13) | 07:49 | | | 06:39 | 06:17 | | 06:44 (C4) | 05:06 |
| | 16:06 | 37 | 14:52 (C13) | 17:12 | | 18:13 | 20:18 | 22 | 07:06 (C4) | 21:20 |
| 14 | 08:42 | 14:16 (C13) | 07:47 | | | 06:37 | 06:14 | | 06:43 (C4) | 05:04 |
| | 16:08 | 37 | 14:53 (C13) | 17:14 | | 18:15 | 20:20 | 22 | 07:05 (C4) | 21:22 |
| 15 | 08:41 | 14:15 (C13) | 07:45 | | | 06:34 | 06:12 | | 06:43 (C4) | 05:02 |
| | 16:10 | 38 | 14:53 (C13) | 17:17 | | 18:17 | 20:22 | 23 | 07:06 (C4) | 21:24 |
| 16 | 08:40 | 14:16 (C13) | 07:43 | | | 06:31 | 06:09 | | 06:42 (C4) | 05:01 |
| | 16:12 | 38 | 14:54 (C13) | 17:19 | | 18:20 | 20:24 | 23 | 07:05 (C4) | 21:25 |
| 17 | 08:39 | 14:16 (C13) | 07:40 | | | 06:29 | 06:07 | | 06:42 (C4) | 04:59 |
| | 16:14 | 38 | 14:54 (C13) | 17:21 | | 18:22 | 20:26 | 23 | 07:05 (C4) | 21:27 |
| 18 | 08:37 | 14:16 (C13) | 07:38 | | | 06:26 | 06:04 | | 06:42 (C4) | 04:57 |
| | 16:16 | 39 | 14:55 (C13) | 17:23 | | 18:24 | 20:28 | 22 | 07:04 (C4) | 21:29 |
| 19 | 08:36 | 14:16 (C13) | 07:35 | | | 06:23 | 06:02 | | 06:43 (C4) | 04:55 |
| | 16:18 | 39 | 14:55 (C13) | 17:25 | | 18:26 | 20:30 | 20 | 07:03 (C4) | 21:31 |
| 20 | 08:35 | 14:17 (C13) | 07:33 | | | 06:21 | 05:59 | | 06:43 (C4) | 04:53 |
| | 16:20 | 39 | 14:56 (C13) | 17:28 | | 18:28 | 20:32 | 19 | 07:02 (C4) | 21:33 |
| 21 | 08:33 | 14:17 (C13) | 07:31 | | | 06:18 | 05:57 | | 06:44 (C4) | 04:52 |
| | 16:22 | 39 | 14:56 (C13) | 17:30 | | 18:30 | 20:35 | 17 | 07:01 (C4) | 21:35 |
| 22 | 08:32 | 14:17 (C13) | 07:28 | | | 06:15 | 05:54 | | 06:46 (C4) | 04:50 |
| | 16:24 | 39 | 14:56 (C13) | 17:32 | | 18:32 | 20:37 | 13 | 06:59 (C4) | 21:36 |
| 23 | 08:30 | 14:17 (C13) | 07:26 | | | 06:13 | 05:52 | | 06:47 (C4) | 04:48 |
| | 16:26 | 39 | 14:56 (C13) | 17:34 | | 18:34 | 20:39 | 9 | 06:56 (C4) | 21:38 |
| 24 | 08:29 | 14:18 (C13) | 07:23 | | | 06:10 | 05:49 | | 04:47 | 04:26 |
| | 16:28 | 38 | 14:56 (C13) | 17:37 | | 18:36 | 20:41 | | 21:40 | 22:10 |
| 25 | 08:27 | 14:19 (C13) | 07:21 | | | 06:07 | 05:47 | | 04:45 | 04:26 |
| | 16:30 | 38 | 14:57 (C13) | 17:39 | | 18:38 | 20:43 | | 21:42 | 22:10 |
| 26 | 08:25 | 14:19 (C13) | 07:18 | | | 06:05 | 05:44 | | 04:44 | 04:27 |
| | 16:32 | 38 | 14:57 (C13) | 17:41 | | 18:40 | 20:45 | | 21:43 | 22:10 |
| 27 | 08:24 | 14:20 (C13) | 07:16 | | | 06:02 | 05:42 | | 04:42 | 04:27 |
| | 16:34 | 37 | 14:57 (C13) | 17:43 | | 18:43 | 20:47 | | 21:45 | 22:10 |
| 28 | 08:22 | 14:21 (C13) | 07:13 | | | 05:59 | 05:39 | | 04:41 | 04:28 |
| | 16:36 | 36 | 14:57 (C13) | 17:45 | | 18:45 | 20:49 | | 21:47 | 22:10 |
| 29 | 08:20 | 14:21 (C13) | | | | 06:57 | 05:37 | | 04:39 | 04:28 |
| | 16:39 | 36 | 14:57 (C13) | | | 19:47 | 20:51 | | 21:48 | 22:10 |
| 30 | 08:18 | 14:22 (C13) | | | | 06:54 | 05:35 | | 04:38 | 04:29 |
| | 16:41 | 34 | 14:56 (C13) | | | 19:49 | 20:53 | | 21:50 | 22:09 |
| 31 | 08:17 | 14:22 (C13) | | | | 06:51 | | | 04:37 | |
| | 16:43 | 33 | 14:55 (C13) | | | 19:51 | | | 21:51 | |
| Potential sun hours | 235 | | 266 | | | 366 | 426 | | 508 | 529 |
| Total, worst case | 1105 | | 142 | | | | 276 | | | |
| Sun reduction | 0.13 | | 0.20 | | | | 0.50 | | | |
| Oper. time red. | 0.98 | | 0.98 | | | | 0.98 | | | |
| Wind dir. red. | 0.66 | | 0.66 | | | | 0.66 | | | |
| Total reduction | 0.09 | | 0.13 | | | | 0.32 | | | |
| Total, real | 96 | | 19 | | | | 89 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Raceni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (184)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December | | | |
|---------------------|----------------|----------------|----------------|-----------------------------|----------------|----------------|-------------------------------|-------------------------------|-------------------------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 06:47 (C4) 17 07:04 (C4) | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 | 13:58 (C13) 35 14:33 (C13) | |
| 2 | 04:31 22:08 | 05:17 21:26 | 06:19 20:11 | 06:49 (C4) 13 07:02 (C4) | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 | 13:58 (C13) 36 14:34 (C13) | |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 06:51 (C4) 9 07:00 (C4) | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 | 13:58 (C13) 35 14:33 (C13) | |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 06:53 (C4) 4 06:57 (C4) | 07:23 18:46 | 07:29 16:29 | 14:08 (C13) 4 14:12 (C13) | 08:29 15:42 | 13:59 (C13) 34 14:33 (C13) |
| 5 | 04:34 22:07 | 05:23 21:19 | 06:25 20:03 | | 07:25 18:43 | 07:31 16:27 | 14:02 (C13) 15 14:17 (C13) | 08:31 15:42 | 14:00 (C13) 33 14:33 (C13) |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | | 07:27 18:40 | 07:33 16:25 | 14:00 (C13) 20 14:20 (C13) | 08:32 15:41 | 14:01 (C13) 33 14:34 (C13) |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | | 07:29 18:38 | 07:36 16:23 | 13:58 (C13) 24 14:22 (C13) | 08:34 15:40 | 14:01 (C13) 32 14:33 (C13) |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | | 07:32 18:35 | 07:38 16:21 | 13:57 (C13) 27 14:24 (C13) | 08:35 15:40 | 14:03 (C13) 31 14:34 (C13) |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | | 07:34 18:32 | 07:40 16:19 | 13:56 (C13) 29 14:25 (C13) | 08:37 15:39 | 14:03 (C13) 30 14:33 (C13) |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | | 07:36 18:30 | 07:42 16:17 | 13:54 (C13) 31 14:25 (C13) | 08:38 15:39 | 14:04 (C13) 30 14:34 (C13) |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | | 07:38 18:27 | 07:44 16:15 | 13:54 (C13) 33 14:27 (C13) | 08:39 15:38 | 14:05 (C13) 28 14:33 (C13) |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | | 07:40 18:25 | 07:46 16:13 | 13:53 (C13) 34 14:27 (C13) | 08:40 15:38 | 14:06 (C13) 28 14:34 (C13) |
| 13 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | | 07:42 18:22 | 07:49 16:11 | 13:53 (C13) 36 14:29 (C13) | 08:42 15:38 | 14:07 (C13) 27 14:34 (C13) |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | | 07:44 18:19 | 07:51 16:09 | 13:53 (C13) 36 14:29 (C13) | 08:43 15:38 | 14:07 (C13) 27 14:34 (C13) |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | | 07:46 18:17 | 07:53 16:08 | 13:52 (C13) 37 14:29 (C13) | 08:44 15:38 | 14:08 (C13) 26 14:34 (C13) |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | | 07:48 18:14 | 07:55 16:06 | 13:52 (C13) 38 14:30 (C13) | 08:45 15:38 | 14:08 (C13) 27 14:35 (C13) |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | | 07:50 18:12 | 07:57 16:04 | 13:52 (C13) 38 14:30 (C13) | 08:45 15:38 | 14:09 (C13) 26 14:35 (C13) |
| 18 | 04:51 21:52 | 05:49 20:49 | 06:51 19:29 | | 07:52 18:09 | 07:59 16:02 | 13:52 (C13) 38 14:30 (C13) | 08:46 15:38 | 14:10 (C13) 25 14:35 (C13) |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | | 07:54 18:07 | 08:01 16:01 | 13:52 (C13) 39 14:31 (C13) | 08:47 15:38 | 14:10 (C13) 25 14:35 (C13) |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | | 07:57 18:04 | 08:03 15:59 | 13:52 (C13) 39 14:31 (C13) | 08:48 15:39 | 14:11 (C13) 25 14:36 (C13) |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | | 07:59 18:02 | 08:05 15:58 | 13:52 (C13) 39 14:31 (C13) | 08:48 15:39 | 14:12 (C13) 24 14:36 (C13) |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | | 08:01 17:59 | 08:07 15:56 | 13:53 (C13) 39 14:32 (C13) | 08:49 15:39 | 14:12 (C13) 24 14:36 (C13) |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | | 08:03 17:57 | 08:09 15:55 | 13:53 (C13) 39 14:32 (C13) | 08:49 15:40 | 14:13 (C13) 25 14:38 (C13) |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | | 08:05 17:55 | 08:11 15:53 | 13:53 (C13) 39 14:32 (C13) | 08:50 15:40 | 14:13 (C13) 25 14:38 (C13) |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | | 08:07 17:52 | 08:13 15:52 | 13:54 (C13) 38 14:32 (C13) | 08:50 15:41 | 14:13 (C13) 25 14:38 (C13) |
| 26 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | | 08:09 17:50 | 08:15 15:51 | 13:54 (C13) 38 14:32 (C13) | 08:51 15:42 | 14:13 (C13) 26 14:39 (C13) |
| 27 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | | 08:11 17:47 | 08:17 15:49 | 13:55 (C13) 38 14:33 (C13) | 08:51 15:43 | 14:13 (C13) 26 14:39 (C13) |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | | 08:13 17:44 | 08:19 15:48 | 13:56 (C13) 37 14:33 (C13) | 08:51 15:44 | 14:14 (C13) 26 14:40 (C13) |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | | 08:15 17:43 | 08:21 15:47 | 13:56 (C13) 37 14:33 (C13) | 08:51 15:45 | 14:14 (C13) 27 14:41 (C13) |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | | 08:17 17:41 | 08:22 15:46 | 13:57 (C13) 36 14:33 (C13) | 08:51 15:46 | 14:14 (C13) 28 14:42 (C13) |
| 31 | 05:14 21:30 | 06:15 20:17 | 07:17 18:53 | | 08:19 17:40 | 08:27 15:47 | 14:33 (C13) 36 14:33 (C13) | 08:51 15:47 | 14:15 (C13) 28 14:43 (C13) |
| Potential sun hours | 529 | 469 | 385 | | 324 | 247 | | 216 | |
| Total, worst case | | 234 | 43 | | | 898 | | 877 | |
| Sun reduction | | 0.50 | 0.43 | | | 0.08 | | 0.07 | |
| Oper. time red. | | 0.98 | 0.98 | | | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.66 | 0.66 | | | 0.66 | | 0.66 | |
| Total reduction | | 0.32 | 0.28 | | | 0.05 | | 0.05 | |
| Total, real | | 75 | 12 | | | 48 | | 40 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ruki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (177)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:30 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:02 | 04:32 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:03 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:57 | 08:00 17:01 | 06:53 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:26 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:24 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:22 | 06:06 20:26 | 04:58 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:31 17:30 | 06:18 18:30 | 05:56 20:35 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:49 15:39 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:57 19:47 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Salvija - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (56)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:04 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Sarkani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (179)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
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| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:54 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
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| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
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| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Sarmas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (154)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Saulkrasti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (112)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December | |
|---------------------|----------------|----------------------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 09:18 (C13) 17:48 | 07:11 19:53 | 06:49 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 | 09:04 (C13) 09:09 (C13) |
| 2 | 08:51 15:49 | 08:13 16:47 | 09:20 (C13) 17:50 | 07:08 19:55 | 06:46 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 | |
| 3 | 08:50 15:51 | 08:11 16:50 | 09:21 (C13) 17:52 | 07:06 19:57 | 06:43 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 | |
| 4 | 08:50 15:52 | 08:09 16:52 | 09:24 (C13) 17:54 | 07:03 19:59 | 06:41 21:02 | 04:33 21:57 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 | |
| 5 | 08:49 15:53 | 08:07 16:54 | 09:28 (C13) 17:56 | 07:01 19:58 | 06:38 20:51 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 | |
| 6 | 08:49 15:55 | 08:05 16:56 | 09:32 (C13) 17:58 | 07:05 19:58 | 06:35 20:52 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 | 08:57 (C13) 09:03 (C13) |
| 7 | 08:48 15:56 | 08:03 16:59 | 09:33 (C13) 18:01 | 07:06 19:59 | 06:33 20:56 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 20:01 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 | 09:05 (C13) |
| 8 | 08:48 15:58 | 08:01 17:01 | 09:34 (C13) 18:03 | 07:07 19:59 | 06:30 21:00 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 20:03 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 | 09:06 (C13) |
| 9 | 08:47 15:59 | 07:58 17:03 | 09:35 (C13) 18:05 | 07:08 19:59 | 06:28 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 20:03 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 | 09:07 (C13) |
| 10 | 08:46 16:01 | 07:56 17:05 | 09:36 (C13) 18:07 | 07:09 19:59 | 06:25 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 20:03 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 | 09:08 (C13) |
| 11 | 08:45 16:03 | 09:22 (C13) 09:27 (C13) | 07:54 18:08 | 07:10 19:59 | 06:22 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 20:03 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 | 09:09 (C13) |
| 12 | 08:44 16:05 | 09:21 (C13) 09:30 (C13) | 07:52 18:10 | 07:11 19:59 | 06:20 21:18 | 04:26 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 20:03 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 | 09:10 (C13) |
| 13 | 08:43 16:06 | 09:19 (C13) 09:30 (C13) | 07:50 18:12 | 07:12 19:59 | 06:17 21:20 | 04:26 22:06 | 04:43 22:02 | 05:39 21:59 | 06:41 21:02 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 | 09:11 (C13) |
| 14 | 08:42 16:08 | 09:18 (C13) 09:32 (C13) | 07:47 18:14 | 07:13 19:59 | 06:15 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 20:03 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 | 09:12 (C13) |
| 15 | 08:41 16:10 | 09:17 (C13) 09:34 (C13) | 07:45 18:17 | 07:14 19:59 | 06:12 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 20:03 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 | 09:13 (C13) |
| 16 | 08:40 16:12 | 09:15 (C13) 09:34 (C13) | 07:43 18:19 | 07:15 19:59 | 06:10 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 20:03 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 | 09:14 (C13) |
| 17 | 08:39 16:14 | 09:15 (C13) 09:36 (C13) | 07:40 18:21 | 07:16 19:59 | 06:09 21:27 | 04:25 22:09 | 04:50 21:54 | 05:47 20:52 | 06:49 20:03 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 | 09:15 (C13) |
| 18 | 08:38 16:16 | 09:15 (C13) 09:36 (C13) | 07:38 18:23 | 07:17 19:59 | 06:07 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 20:03 | 07:52 18:09 | 07:59 16:02 | 08:47 15:38 | 09:16 (C13) |
| 19 | 08:36 16:18 | 09:14 (C13) 09:37 (C13) | 07:36 18:26 | 07:18 19:59 | 06:05 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 20:03 | 07:55 18:07 | 08:01 16:01 | 08:49 15:38 | 09:17 (C13) |
| 20 | 08:35 16:20 | 09:13 (C13) 09:38 (C13) | 07:33 18:28 | 07:19 19:59 | 06:02 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 20:03 | 07:57 18:04 | 08:03 15:59 | 08:49 15:39 | 09:18 (C13) |
| 21 | 08:33 16:22 | 09:12 (C13) 09:39 (C13) | 07:31 18:30 | 07:20 19:59 | 06:01 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 20:03 | 07:59 18:02 | 08:05 15:58 | 08:50 15:39 | 09:19 (C13) |
| 22 | 08:32 16:24 | 09:11 (C13) 09:39 (C13) | 07:28 18:32 | 07:21 19:59 | 06:00 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 20:03 | 08:01 17:59 | 08:07 15:56 | 08:51 15:39 | 09:20 (C13) |
| 23 | 08:30 16:26 | 09:10 (C13) 09:40 (C13) | 07:26 18:34 | 07:22 19:59 | 06:00 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 | 09:21 (C13) |
| 24 | 08:29 16:28 | 09:09 (C13) 09:41 (C13) | 07:23 18:36 | 07:23 19:59 | 06:00 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:51 15:41 | 09:22 (C13) |
| 25 | 08:27 16:30 | 09:08 (C13) 09:41 (C13) | 07:21 18:38 | 07:24 19:59 | 06:00 21:42 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 | 09:23 (C13) |
| 26 | 08:26 16:32 | 09:07 (C13) 09:41 (C13) | 07:18 18:41 | 07:25 19:59 | 06:00 21:45 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:15 17:50 | 08:15 15:51 | 08:51 15:42 | 09:24 (C13) |
| 27 | 08:24 16:34 | 09:06 (C13) 09:41 (C13) | 07:16 18:43 | 07:26 19:59 | 06:00 21:47 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:17 17:47 | 08:17 15:49 | 08:51 15:43 | 09:25 (C13) |
| 28 | 08:22 16:36 | 09:05 (C13) 09:41 (C13) | 07:13 18:45 | 07:27 19:59 | 06:00 21:49 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:19 17:45 | 08:19 15:48 | 08:51 15:44 | 09:26 (C13) |
| 29 | 08:20 16:39 | 09:04 (C13) 09:41 (C13) | 07:11 18:47 | 07:28 19:59 | 06:00 21:51 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:21 17:43 | 08:21 15:47 | 08:51 15:45 | 09:27 (C13) |
| 30 | 08:19 16:41 | 09:03 (C13) 09:41 (C13) | 07:09 18:49 | 07:29 19:59 | 06:00 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:22 17:41 | 08:22 15:46 | 08:51 15:46 | 09:28 (C13) |
| 31 | 08:17 16:43 | 09:02 (C13) 09:40 (C13) | 07:07 18:51 | 07:30 19:59 | 06:00 21:51 | 04:37 22:10 | 05:14 21:30 | 06:15 20:17 | 07:20 17:38 | 08:24 17:20 | 08:24 15:47 | 08:51 15:47 | 09:29 (C13) |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 | |
| Total, worst case | | | | | | | | | | | | | |
| Sun reduction | 0.13 | 0.20 | | | | | | | | | 0.08 | | 0.07 |
| Oper. time red. | 0.98 | 0.98 | | | | | | | | | 0.98 | | 0.98 |
| Wind dir. red. | 0.60 | 0.60 | | | | | | | | | 0.60 | | 0.60 |
| Total reduction | 0.08 | 0.12 | | | | | | | | | 0.05 | | 0.04 |
| Total, real | 34 | 8 | | | | | | | | | 24 | | 0 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Saulites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (136)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|-------|----------------|----------------|-------|
| 1 | 08:51 | 08:15 | 07:11 | 06:49 | 05:33 | 04:36 |
| | 15:48 | 16:45 | 17:48 | 19:53 | 20:55 | 21:53 |
| 2 | 08:50 | 08:13 | 07:08 | 07:34 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 5 07:39 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:32 (C14) | 06:44 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 10 07:42 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:29 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 14 07:43 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:26 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 18 07:44 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 07:24 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:57 | 17:58 | 22 07:46 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 07:21 (C14) | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | 25 07:46 (C14) | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | 07:19 (C14) | 06:30 | 05:17 |
| | 15:58 | 17:01 | 18:03 | 27 07:46 (C14) | 20:08 | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | 07:19 (C14) | 06:28 | 05:15 |
| | 16:00 | 17:03 | 18:05 | 28 07:47 (C14) | 20:10 | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | 07:19 (C14) | 06:25 | 05:13 |
| | 16:01 | 17:05 | 18:07 | 27 07:46 (C14) | 20:12 | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | 07:18 (C14) | 06:22 | 05:11 |
| | 16:03 | 17:08 | 18:09 | 27 07:45 (C14) | 20:14 | 21:16 |
| 12 | 08:44 | 07:52 | 06:42 | 07:19 (C14) | 06:20 | 05:09 |
| | 16:05 | 17:10 | 18:11 | 27 07:46 (C14) | 20:16 | 21:18 |
| 13 | 08:43 | 07:50 | 06:40 | 07:19 (C14) | 06:17 | 05:07 |
| | 16:06 | 17:12 | 18:13 | 26 07:45 (C14) | 20:18 | 21:20 |
| 14 | 08:42 | 07:47 | 06:37 | 07:19 (C14) | 06:15 | 05:05 |
| | 16:08 | 17:14 | 18:15 | 24 07:43 (C14) | 20:20 | 21:22 |
| 15 | 08:41 | 07:45 | 06:34 | 07:20 (C14) | 06:12 | 05:03 |
| | 16:10 | 17:17 | 18:18 | 23 07:43 (C14) | 20:22 | 21:24 |
| 16 | 08:40 | 07:43 | 06:32 | 07:21 (C14) | 06:09 | 05:01 |
| | 16:12 | 17:19 | 18:20 | 20 07:41 (C14) | 20:24 | 21:26 |
| 17 | 08:39 | 07:40 | 06:29 | 07:22 (C14) | 06:07 | 05:00 |
| | 16:14 | 17:21 | 18:22 | 17 07:39 (C14) | 20:26 | 21:27 |
| 18 | 08:38 | 07:38 | 06:26 | 07:24 (C14) | 06:04 | 05:00 |
| | 16:16 | 17:23 | 18:24 | 11 07:35 (C14) | 20:28 | 21:29 |
| 19 | 08:36 | 07:36 | 06:24 | 06:02 | 06:28 (C13) | 04:55 |
| | 16:18 | 17:26 | 18:26 | 20:31 | 15 06:43 (C13) | 21:31 |
| 20 | 08:35 | 07:33 | 06:21 | 05:59 | 06:26 (C13) | 04:54 |
| | 16:20 | 17:28 | 18:28 | 20:33 | 17 06:43 (C13) | 21:33 |
| 21 | 08:33 | 07:31 | 06:18 | 05:57 | 06:23 (C13) | 04:52 |
| | 16:22 | 17:30 | 18:30 | 20:35 | 20 06:43 (C13) | 21:35 |
| 22 | 08:32 | 07:28 | 06:16 | 05:54 | 06:22 (C13) | 04:50 |
| | 16:24 | 17:32 | 18:32 | 20:37 | 21 06:43 (C13) | 21:37 |
| 23 | 08:30 | 07:26 | 06:13 | 05:52 | 06:22 (C13) | 04:48 |
| | 16:26 | 17:34 | 18:34 | 20:39 | 20 06:42 (C13) | 21:38 |
| 24 | 08:29 | 07:23 | 06:10 | 05:49 | 06:22 (C13) | 04:47 |
| | 16:28 | 17:37 | 18:36 | 20:41 | 19 06:41 (C13) | 21:40 |
| 25 | 08:27 | 07:21 | 06:08 | 05:47 | 06:23 (C13) | 04:45 |
| | 16:30 | 17:39 | 18:39 | 20:43 | 18 06:41 (C13) | 21:42 |
| 26 | 08:26 | 07:18 | 06:05 | 05:45 | 06:23 (C13) | 04:44 |
| | 16:32 | 17:41 | 18:41 | 20:45 | 16 06:39 (C13) | 21:43 |
| 27 | 08:24 | 07:16 | 06:02 | 05:42 | 06:25 (C13) | 04:42 |
| | 16:34 | 17:43 | 18:43 | 20:47 | 12 06:37 (C13) | 21:45 |
| 28 | 08:22 | 07:13 | 06:00 | 05:40 | 06:27 (C13) | 04:41 |
| | 16:37 | 17:45 | 18:45 | 20:49 | 8 06:35 (C13) | 21:47 |
| 29 | 08:20 | | 06:57 | 05:37 | | 04:40 |
| | 16:39 | | 19:47 | 20:51 | | 21:48 |
| 30 | 08:19 | | 06:54 | 05:35 | | 04:38 |
| | 16:41 | | 19:49 | 20:53 | | 21:50 |
| 31 | 08:17 | | 06:52 | | | 04:37 |
| | 16:43 | | 19:51 | | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | | 351 | 195 | | |
| Sun reduction | | | 0.41 | 0.50 | | |
| Oper. time red. | | | 0.98 | 0.98 | | |
| Wind dir. red. | | | 0.62 | 0.65 | | |
| Total reduction | | | 0.25 | 0.32 | | |
| Total, real | | | 87 | 62 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Saulites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (136)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:58 (C14) 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:57 (C14) 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:57 (C14) 16:32 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:56 (C14) 16:30 | 08:29 15:43 |
| 5 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:25 18:43 | 07:56 (C14) 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:56 (C14) 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:58 (C14) 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:00 (C14) 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 08:03 (C14) 16:19 | 08:37 15:39 |
| 10 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 08:05 (C14) 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 08:07 (C14) 16:15 | 08:39 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:09 (C14) 16:13 | 08:40 15:38 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:11 (C14) 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:11 (C14) 16:10 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:11 (C14) 16:08 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 08:11 (C14) 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:11 (C14) 16:04 | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 08:11 (C14) 16:03 | 08:46 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:11 (C14) 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:11 (C14) 15:59 | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:11 (C14) 15:58 | 08:49 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:11 (C14) 15:56 | 08:49 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:11 (C14) 15:55 | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 (C14) 15:53 | 08:50 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:09 (C14) 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:05 (C14) 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:03 (C14) 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:22 (C14) 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:23 (C14) 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:59 (C14) 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 08:24 (C14) 16:38 | | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 197 | 115 | | 244 | |
| Sun reduction | | 0.50 | 0.43 | | 0.26 | |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.65 | 0.62 | | 0.62 | |
| Total reduction | | 0.32 | 0.26 | | 0.16 | |
| Total, real | | 62 | 30 | | 38 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Seglini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (79)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------------------|----------------------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 07:26 (C14) 07:30 (C14) | 06:38 20:01 | 05:24 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 07:24 (C14) 07:33 (C14) | 06:36 20:03 | 05:21 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 07:21 (C14) 07:35 (C14) | 06:33 20:06 | 05:19 22:00 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 07:18 (C14) 07:35 (C14) | 06:30 20:08 | 05:17 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 07:16 (C14) 07:37 (C14) | 06:28 20:10 | 05:15 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 07:13 (C14) 07:37 (C14) | 06:25 20:12 | 05:13 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 07:11 (C14) 07:37 (C14) | 06:22 20:14 | 05:11 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 07:11 (C14) 07:38 (C14) | 06:20 20:16 | 05:09 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 07:10 (C14) 07:37 (C14) | 06:17 20:18 | 05:07 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 07:10 (C14) 07:36 (C14) | 06:15 20:20 | 05:05 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 07:11 (C14) 07:37 (C14) | 06:12 20:22 | 05:03 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 07:11 (C14) 07:35 (C14) | 06:09 20:24 | 05:01 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 07:11 (C14) 07:34 (C14) | 06:07 20:26 | 04:59 22:08 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 07:11 (C14) 07:32 (C14) | 06:04 20:28 | 04:57 22:09 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 07:13 (C14) 07:31 (C14) | 06:02 20:31 | 04:55 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 07:14 (C14) 07:29 (C14) | 05:59 20:33 | 04:54 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 07:17 (C14) 07:25 (C14) | 05:57 20:35 | 04:52 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 06:21 (C13) 06:39 (C13) | 04:50 21:37 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 06:18 (C13) 06:38 (C13) | 04:48 21:38 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 06:19 (C13) 06:38 (C13) | 04:47 21:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 06:19 (C13) 06:38 (C13) | 04:45 21:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 06:19 (C13) 06:36 (C13) | 04:44 21:43 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 06:20 (C13) 06:35 (C13) | 04:42 21:45 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 06:21 (C13) 06:34 (C13) | 04:41 21:47 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 06:24 (C13) 06:32 (C13) | 04:40 21:48 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | | 04:38 21:50 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | | 04:37 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 330 | 182 | | |
| Sun reduction | | | 0.41 | 0.50 | | |
| Oper. time red. | | | 0.98 | 0.98 | | |
| Wind dir. red. | | | 0.62 | 0.65 | | |
| Total reduction | | | 0.25 | 0.32 | | |
| Total, real | | | 82 | 58 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Seglini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (79)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------------|----------------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:50 (C14) 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:50 (C14) 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:50 (C14) 16:32 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:52 (C14) 16:30 | 08:29 15:43 |
| 5 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:25 18:43 | 07:54 (C14) 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:56 (C14) 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:58 (C14) 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:00 (C14) 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 08:07 (C14) 16:19 | 08:37 15:39 |
| 10 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 08:07 (C14) 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 08:07 (C14) 16:15 | 08:39 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:07 (C14) 16:13 | 08:40 15:38 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:07 (C14) 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 (C13) 19:39 | 07:44 18:20 | 08:07 (C14) 16:10 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 (C13) 19:37 | 07:46 18:17 | 08:07 (C14) 16:08 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 (C13) 19:34 | 07:48 18:15 | 08:07 (C14) 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 (C13) 19:31 | 07:50 18:12 | 08:07 (C14) 16:04 | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 (C13) 19:29 | 07:53 18:09 | 08:07 (C14) 16:03 | 08:46 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 (C13) 19:26 | 07:55 18:07 | 08:07 (C14) 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 (C13) 19:23 | 07:57 18:04 | 08:07 (C14) 15:59 | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 (C13) 19:21 | 07:59 18:02 | 08:07 (C14) 15:58 | 08:49 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 (C13) 19:18 | 08:04 (C14) 18:00 | 08:07 (C14) 15:56 | 08:49 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 (C13) 19:15 | 08:09 (C14) 17:57 | 08:07 (C14) 15:55 | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 (C13) 19:12 | 08:13 (C14) 17:55 | 08:07 (C14) 15:53 | 08:50 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 (C13) 19:10 | 08:15 (C14) 17:52 | 08:07 (C14) 15:52 | 08:51 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 (C13) 19:07 | 08:17 (C14) 17:50 | 08:07 (C14) 15:51 | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 (C13) 19:04 | 08:17 (C14) 17:48 | 08:07 (C14) 15:50 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 (C13) 19:02 | 08:17 (C14) 17:46 | 08:07 (C14) 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 (C13) 18:59 | 08:17 (C14) 17:44 | 08:07 (C14) 15:47 | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 (C13) 18:56 | 08:17 (C14) 17:42 | 08:07 (C14) 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 08:17 (C14) 17:40 | 08:07 (C14) 15:45 | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 184 | 182 | 154 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.65 | 0.62 | 0.62 | | |
| Total reduction | | 0.32 | 0.26 | 0.16 | | |
| Total, real | | 58 | 47 | 24 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Senlici - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (140)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------------|----------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 06:01 (C13) 21:53 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 06:01 (C13) 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 06:01 (C13) 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 06:02 (C13) 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 06:02 (C13) 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 06:03 (C13) 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 06:04 (C13) 22:00 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 06:06 (C13) 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 06:09 (C13) 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 06:13 (C13) 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 06:15 (C13) 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 06:17 (C13) 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 06:19 (C13) 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 06:21 (C13) 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 06:23 (C13) 22:08 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 | 06:25 (C13) 22:09 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 06:27 (C13) 22:10 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 06:29 (C13) 22:11 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 06:31 (C13) 22:12 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 06:33 (C13) 22:13 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 06:35 (C13) 22:14 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 06:37 (C13) 22:15 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 06:39 (C13) 22:16 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 06:16 (C13) 21:40 | 06:41 (C13) 22:17 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 06:14 (C13) 21:42 | 06:43 (C13) 22:18 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 06:11 (C13) 21:43 | 06:45 (C13) 22:19 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 06:09 (C13) 21:45 | 06:47 (C13) 22:20 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 06:07 (C13) 21:47 | 06:49 (C13) 22:21 |
| 29 | 08:20 16:39 | 07:11 19:47 | 05:57 18:47 | 05:37 20:51 | 06:05 (C13) 21:48 | 06:51 (C13) 22:22 |
| 30 | 08:19 16:41 | 07:09 19:49 | 05:54 18:49 | 05:35 20:53 | 06:03 (C13) 21:50 | 06:53 (C13) 22:23 |
| 31 | 08:17 16:43 | 07:07 19:51 | 05:52 18:51 | 05:33 20:55 | 06:01 (C13) 21:51 | 06:55 (C13) 22:24 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 418 | 86 | 143 | |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | | 0.63 | 0.66 | 0.66 | |
| Total reduction | | | 0.25 | 0.32 | 0.37 | |
| Total, real | | | 106 | 28 | 52 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Senlici - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (140)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|----------------|----------------|----------------|----------|
| 1 | 04:30 | 05:16 | 06:17 | 07:17 | 07:46 (C14) | 07:23 |
| | 22:09 | 21:28 | 20:14 | 18:54 | 13 07:59 (C14) | 16:36 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 07:48 (C14) | 07:25 |
| | 22:09 | 21:26 | 20:11 | 18:51 | 8 07:56 (C14) | 16:34 |
| 3 | 04:32 | 05:20 | 06:21 | 07:21 | | 07:27 |
| | 22:08 | 21:24 | 20:09 | 18:48 | | 16:32 |
| 4 | 04:33 | 05:22 | 06:18 (C13) | 06:23 | 07:23 | 07:29 |
| | 22:07 | 21:22 | 7 06:25 (C13) | 20:06 | 18:46 | 16:30 |
| 5 | 04:34 | 05:24 | 06:16 (C13) | 06:25 | 07:25 | 07:31 |
| | 22:07 | 21:20 | 11 06:27 (C13) | 20:04 | 18:43 | 16:27 |
| 6 | 04:35 | 05:25 | 06:13 (C13) | 06:27 | 07:28 | 07:33 |
| | 22:06 | 21:17 | 15 06:28 (C13) | 20:01 | 18:40 | 16:25 |
| 7 | 04:36 | 05:27 | 06:12 (C13) | 06:29 | 07:30 | 07:36 |
| | 22:05 | 21:15 | 17 06:29 (C13) | 19:58 | 18:38 | 16:23 |
| 8 | 04:37 | 05:29 | 06:12 (C13) | 06:31 | 07:32 | 07:38 |
| | 22:04 | 21:13 | 18 06:30 (C13) | 19:56 | 18:35 | 16:21 |
| 9 | 04:38 | 05:31 | 06:11 (C13) | 06:33 | 07:34 | 07:40 |
| | 22:03 | 21:11 | 20 06:31 (C13) | 19:53 | 18:33 | 16:19 |
| 10 | 04:40 | 05:33 | 06:11 (C13) | 06:35 | 07:36 | 07:42 |
| | 22:02 | 21:08 | 20 06:31 (C13) | 19:50 | 18:30 | 16:17 |
| 11 | 04:41 | 05:35 | 06:10 (C13) | 06:37 | 07:38 | 07:44 |
| | 22:01 | 21:06 | 21 06:31 (C13) | 19:47 | 18:27 | 16:15 |
| 12 | 04:42 | 05:37 | 06:09 (C13) | 06:39 | 07:40 | 07:46 |
| | 22:00 | 21:04 | 21 06:30 (C13) | 19:45 | 18:25 | 16:13 |
| 13 | 04:44 | 05:39 | 06:11 (C13) | 06:41 | 07:42 | 07:49 |
| | 21:59 | 21:02 | 19 06:30 (C13) | 19:42 | 18:22 | 16:11 |
| 14 | 04:45 | 05:41 | 06:13 (C13) | 06:43 | 07:53 (C14) | 07:44 |
| | 21:58 | 20:59 | 17 06:30 (C13) | 19:39 | 6 07:59 (C14) | 18:20 |
| 15 | 04:46 | 05:43 | 06:15 (C13) | 06:45 | 07:49 (C14) | 07:46 |
| | 21:57 | 20:57 | 15 06:30 (C13) | 19:37 | 14 08:03 (C14) | 18:17 |
| 16 | 04:48 | 05:45 | 06:17 (C13) | 06:47 | 07:46 (C14) | 07:48 |
| | 21:55 | 20:54 | 12 06:29 (C13) | 19:34 | 19 08:05 (C14) | 18:15 |
| 17 | 04:49 | 05:47 | 06:19 (C13) | 06:49 | 07:45 (C14) | 07:50 |
| | 21:54 | 20:52 | 9 06:28 (C13) | 19:31 | 21 08:06 (C14) | 18:12 |
| 18 | 04:51 | 05:49 | 06:21 (C13) | 06:51 | 07:43 (C14) | 07:52 |
| | 21:52 | 20:50 | 6 06:27 (C13) | 19:29 | 24 08:07 (C14) | 18:09 |
| 19 | 04:53 | 05:51 | 06:22 (C13) | 06:53 | 07:42 (C14) | 07:55 |
| | 21:51 | 20:47 | 3 06:25 (C13) | 19:26 | 26 08:08 (C14) | 18:07 |
| 20 | 04:54 | 05:53 | 06:55 | 07:41 (C14) | 07:57 | 08:03 |
| | 21:49 | 20:45 | 19:23 | 27 08:08 (C14) | 18:04 | 15:59 |
| 21 | 04:56 | 05:55 | 06:57 | 07:40 (C14) | 07:59 | 08:05 |
| | 21:48 | 20:42 | 19:21 | 28 08:08 (C14) | 18:02 | 15:58 |
| 22 | 04:58 | 05:57 | 06:59 | 07:39 (C14) | 08:01 | 08:07 |
| | 21:46 | 20:40 | 19:18 | 29 08:08 (C14) | 18:00 | 15:56 |
| 23 | 04:59 | 05:59 | 07:01 | 07:39 (C14) | 08:03 | 08:09 |
| | 21:45 | 20:37 | 19:15 | 29 08:08 (C14) | 17:57 | 15:55 |
| 24 | 05:01 | 06:01 | 07:03 | 07:39 (C14) | 08:05 | 08:11 |
| | 21:43 | 20:35 | 19:12 | 29 08:08 (C14) | 17:55 | 15:53 |
| 25 | 05:03 | 06:03 | 07:05 | 07:38 (C14) | 07:07 | 08:13 |
| | 21:41 | 20:32 | 19:10 | 29 08:07 (C14) | 16:52 | 15:52 |
| 26 | 05:05 | 06:05 | 07:07 | 07:38 (C14) | 07:10 | 08:15 |
| | 21:39 | 20:30 | 19:07 | 29 08:07 (C14) | 16:50 | 15:51 |
| 27 | 05:06 | 06:07 | 07:09 | 07:39 (C14) | 07:12 | 08:17 |
| | 21:38 | 20:27 | 19:04 | 27 08:06 (C14) | 16:48 | 15:50 |
| 28 | 05:08 | 06:09 | 07:11 | 07:40 (C14) | 07:14 | 08:19 |
| | 21:36 | 20:24 | 19:02 | 24 08:04 (C14) | 16:45 | 15:48 |
| 29 | 05:10 | 06:11 | 07:13 | 07:42 (C14) | 07:16 | 08:21 |
| | 21:34 | 20:22 | 18:59 | 21 08:03 (C14) | 16:43 | 15:47 |
| 30 | 05:12 | 06:13 | 07:15 | 07:44 (C14) | 07:18 | 08:22 |
| | 21:32 | 20:19 | 18:56 | 17 08:01 (C14) | 16:41 | 15:46 |
| 31 | 05:14 | 06:15 | | | 07:20 | 08:51 |
| | 21:30 | 20:17 | | | 16:38 | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 231 | 399 | 21 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.66 | 0.63 | 0.63 | | |
| Total reduction | | 0.32 | 0.26 | 0.16 | | |
| Total, real | | 74 | 106 | 3 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Silavinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (224)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:12 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:24 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:05 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:52 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:54 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:26 22:10 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:11 17:47 | 08:17 15:50 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (152)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|-------|-------|--------------|-------|--|
| 1 | 08:51 | | 10:01 (C13) | 08:15 | | 10:08 (C13) | 07:11 | 06:49 | 05:33 | | 04:36 | |
| | 15:48 | 33 | 10:34 (C13) | 16:45 | 40 | 10:48 (C13) | 17:48 | 19:53 | 20:55 | | 21:53 | |
| 2 | 08:50 | | 10:02 (C13) | 08:13 | | 10:09 (C13) | 07:08 | 06:46 | 05:30 | | 04:35 | |
| | 15:49 | 33 | 10:35 (C13) | 16:47 | 38 | 10:47 (C13) | 17:50 | 19:55 | 20:57 | | 21:54 | |
| 3 | 08:50 | | 10:02 (C13) | 08:11 | | 10:10 (C13) | 07:06 | 06:43 | 05:28 | 05:56 (C1) | 04:34 | |
| | 15:51 | 34 | 10:36 (C13) | 16:50 | 37 | 10:47 (C13) | 17:52 | 19:57 | 21:00 | 06:00 (C1) | 21:55 | |
| 4 | 08:50 | | 10:01 (C13) | 08:09 | | 10:11 (C13) | 07:03 | 06:41 | 05:26 | 05:54 (C1) | 04:33 | |
| | 15:52 | 35 | 10:36 (C13) | 16:52 | 35 | 10:46 (C13) | 17:54 | 19:59 | 21:02 | 06:02 (C1) | 21:57 | |
| 5 | 08:49 | | 10:02 (C13) | 08:07 | | 10:12 (C13) | 07:00 | 06:38 | 05:23 | 05:52 (C1) | 04:32 | |
| | 15:53 | 36 | 10:38 (C13) | 16:54 | 33 | 10:45 (C13) | 17:56 | 20:01 | 21:04 | 06:03 (C1) | 21:58 | |
| 6 | 08:49 | | 10:02 (C13) | 08:05 | | 10:13 (C13) | 06:58 | 06:35 | 05:21 | 05:50 (C1) | 04:31 | |
| | 15:55 | 36 | 10:38 (C13) | 16:56 | 30 | 10:43 (C13) | 17:58 | 20:03 | 21:06 | 06:03 (C1) | 21:59 | |
| 7 | 08:48 | | 10:02 (C13) | 08:03 | | 10:15 (C13) | 06:55 | 06:33 | 05:19 | 05:48 (C1) | 04:30 | |
| | 15:56 | 37 | 10:39 (C13) | 16:59 | 27 | 10:42 (C13) | 18:00 | 20:05 | 21:08 | 06:04 (C1) | 22:00 | |
| 8 | 08:48 | | 10:02 (C13) | 08:01 | | 10:17 (C13) | 06:53 | 06:30 | 05:17 | 05:46 (C1) | 04:29 | |
| | 15:58 | 38 | 10:40 (C13) | 17:01 | 24 | 10:41 (C13) | 18:03 | 20:08 | 21:10 | 06:04 (C1) | 22:01 | |
| 9 | 08:47 | | 10:02 (C13) | 07:58 | | 10:19 (C13) | 06:50 | 06:28 | 05:15 | 05:44 (C1) | 04:29 | |
| | 15:59 | 39 | 10:41 (C13) | 17:03 | 18 | 10:37 (C13) | 18:05 | 20:10 | 21:12 | 06:04 (C1) | 22:02 | |
| 10 | 08:46 | | 10:02 (C13) | 07:56 | | 10:24 (C13) | 06:47 | 06:25 | 05:13 | 05:44 (C1) | 04:28 | |
| | 16:01 | 39 | 10:41 (C13) | 17:05 | 9 | 10:33 (C13) | 18:07 | 20:12 | 21:14 | 06:04 (C1) | 22:03 | |
| 11 | 08:45 | | 10:02 (C13) | 07:54 | | | 06:45 | 06:22 | 05:11 | 05:44 (C1) | 04:27 | |
| | 16:03 | 40 | 10:42 (C13) | 17:08 | | | 18:09 | 20:14 | 21:16 | 06:04 (C1) | 22:04 | |
| 12 | 08:44 | | 10:03 (C13) | 07:52 | | | 06:42 | 06:20 | 05:08 | 05:44 (C1) | 04:27 | |
| | 16:04 | 40 | 10:43 (C13) | 17:10 | | | 18:11 | 20:16 | 21:18 | 06:04 (C1) | 22:05 | |
| 13 | 08:43 | | 10:02 (C13) | 07:49 | | | 06:40 | 06:17 | 05:06 | 05:44 (C1) | 04:26 | |
| | 16:06 | 41 | 10:43 (C13) | 17:12 | | | 18:13 | 20:18 | 21:20 | 06:03 (C1) | 22:06 | |
| 14 | 08:42 | | 10:02 (C13) | 07:47 | | | 06:37 | 06:14 | 05:04 | 05:45 (C1) | 04:26 | |
| | 16:08 | 42 | 10:44 (C13) | 17:14 | | | 18:15 | 20:20 | 21:22 | 06:03 (C1) | 22:07 | |
| 15 | 08:41 | | 10:02 (C13) | 07:45 | | | 06:34 | 06:12 | 05:03 | 05:45 (C1) | 04:26 | |
| | 16:10 | 42 | 10:44 (C13) | 17:17 | | | 18:18 | 20:22 | 21:24 | 06:03 (C1) | 22:07 | |
| 16 | 08:40 | | 10:02 (C13) | 07:43 | | | 06:32 | 06:09 | 05:01 | 05:46 (C1) | 04:25 | |
| | 16:12 | 43 | 10:45 (C13) | 17:19 | | | 18:20 | 20:24 | 21:25 | 06:02 (C1) | 22:08 | |
| 17 | 08:39 | | 10:03 (C13) | 07:40 | | | 06:29 | 06:07 | 04:59 | 05:47 (C1) | 04:25 | |
| | 16:14 | 43 | 10:46 (C13) | 17:21 | | | 18:22 | 20:26 | 21:27 | 06:02 (C1) | 22:08 | |
| 18 | 08:37 | | 10:03 (C13) | 07:38 | | | 06:26 | 06:04 | 04:57 | 05:48 (C1) | 04:25 | |
| | 16:16 | 44 | 10:47 (C13) | 17:23 | | | 18:24 | 20:28 | 21:29 | 06:00 (C1) | 22:09 | |
| 19 | 08:36 | | 10:03 (C13) | 07:36 | | | 06:24 | 06:02 | 04:55 | 05:49 (C1) | 04:25 | |
| | 16:18 | 44 | 10:47 (C13) | 17:26 | | | 18:26 | 20:30 | 21:31 | 9 05:58 (C1) | 22:09 | |
| 20 | 08:35 | | 10:03 (C13) | 07:33 | | | 06:21 | 05:59 | 04:53 | 05:52 (C1) | 04:25 | |
| | 16:20 | 45 | 10:48 (C13) | 17:28 | | | 18:28 | 20:33 | 21:33 | 4 05:56 (C1) | 22:10 | |
| 21 | 08:33 | | 10:03 (C13) | 07:31 | | | 06:18 | 05:57 | 04:52 | | 04:25 | |
| | 16:22 | 45 | 10:48 (C13) | 17:30 | | | 18:30 | 20:35 | 21:35 | | 22:10 | |
| 22 | 08:32 | | 10:03 (C13) | 07:28 | | | 06:16 | 05:54 | 04:50 | | 04:25 | |
| | 16:24 | 45 | 10:48 (C13) | 17:32 | | | 18:32 | 20:37 | 21:37 | | 22:10 | |
| 23 | 08:30 | | 10:03 (C13) | 07:26 | | | 06:13 | 05:52 | 04:48 | | 04:26 | |
| | 16:26 | 45 | 10:48 (C13) | 17:34 | | | 18:34 | 20:39 | 21:38 | | 22:10 | |
| 24 | 08:29 | | 10:04 (C13) | 07:23 | | | 06:10 | 05:49 | 04:47 | | 04:26 | |
| | 16:28 | 45 | 10:49 (C13) | 17:37 | | | 18:36 | 20:41 | 21:40 | | 22:10 | |
| 25 | 08:27 | | 10:05 (C13) | 07:21 | | | 06:07 | 05:47 | 04:45 | | 04:26 | |
| | 16:30 | 44 | 10:49 (C13) | 17:39 | | | 18:38 | 20:43 | 21:42 | | 22:10 | |
| 26 | 08:26 | | 10:05 (C13) | 07:18 | | | 06:05 | 05:44 | 04:44 | | 04:27 | |
| | 16:32 | 44 | 10:49 (C13) | 17:41 | | | 18:41 | 20:45 | 21:43 | | 22:10 | |
| 27 | 08:24 | | 10:05 (C13) | 07:16 | | | 06:02 | 05:42 | 04:42 | | 04:27 | |
| | 16:34 | 44 | 10:49 (C13) | 17:43 | | | 18:43 | 20:47 | 21:45 | | 22:10 | |
| 28 | 08:22 | | 10:06 (C13) | 07:13 | | | 05:59 | 05:40 | 04:41 | | 04:28 | |
| | 16:36 | 43 | 10:49 (C13) | 17:45 | | | 18:45 | 20:49 | 21:47 | | 22:10 | |
| 29 | 08:20 | | 10:06 (C13) | | | | 06:57 | 05:37 | 04:40 | | 04:29 | |
| | 16:39 | 43 | 10:49 (C13) | | | | 19:47 | 20:51 | 21:48 | | 22:10 | |
| 30 | 08:18 | | 10:07 (C13) | | | | 06:54 | 05:35 | 04:38 | | 04:29 | |
| | 16:41 | 42 | 10:49 (C13) | | | | 19:49 | 20:53 | 21:50 | | 22:09 | |
| 31 | 08:17 | | 10:08 (C13) | | | | 06:51 | | 04:37 | | | |
| | 16:43 | 41 | 10:49 (C13) | | | | 19:51 | | 21:51 | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | 426 | 508 | | 529 | |
| Total, worst case | 1265 | | | 291 | | | | | 261 | | | |
| Sun reduction | 0.13 | | | 0.20 | | | | | 0.57 | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | | | 0.98 | | | |
| Wind dir. red. | 0.61 | | | 0.61 | | | | | 0.67 | | | |
| Total reduction | 0.08 | | | 0.12 | | | | | 0.36 | | | |
| Total, real | 98 | | | 34 | | | | | 95 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (152)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | October | | November | | December | | | |
|---------------------|-------|------|------------|--------|------|------------|-----------|-----|---------|--|----------|----|-------------|-------|------|-------------|
| 1 | 04:30 | | | 05:16 | | 05:54 (C1) | 06:17 | | 07:17 | | 07:23 | | 09:52 (C13) | 08:24 | | 09:44 (C13) |
| | 22:09 | | | 21:28 | 20 | 06:14 (C1) | 20:14 | | 18:54 | | 16:36 | 12 | 10:04 (C13) | 15:45 | 41 | 10:25 (C13) |
| 2 | 04:31 | | | 05:18 | | 05:54 (C1) | 06:19 | | 07:19 | | 07:25 | | 09:48 (C13) | 08:26 | | 09:45 (C13) |
| | 22:09 | | | 21:26 | 20 | 06:14 (C1) | 20:11 | | 18:51 | | 16:34 | 19 | 10:07 (C13) | 15:44 | 40 | 10:25 (C13) |
| 3 | 04:32 | | | 05:19 | | 05:54 (C1) | 06:21 | | 07:21 | | 07:27 | | 09:46 (C13) | 08:28 | | 09:45 (C13) |
| | 22:08 | | | 21:24 | 21 | 06:15 (C1) | 20:09 | | 18:48 | | 16:32 | 25 | 10:11 (C13) | 15:43 | 39 | 10:24 (C13) |
| 4 | 04:33 | | | 05:21 | | 05:55 (C1) | 06:23 | | 07:23 | | 07:29 | | 09:44 (C13) | 08:29 | | 09:46 (C13) |
| | 22:07 | | | 21:22 | 20 | 06:15 (C1) | 20:06 | | 18:46 | | 16:29 | 28 | 10:12 (C13) | 15:42 | 38 | 10:24 (C13) |
| 5 | 04:34 | | | 05:23 | | 05:56 (C1) | 06:25 | | 07:25 | | 07:31 | | 09:42 (C13) | 08:31 | | 09:47 (C13) |
| | 22:07 | | | 21:20 | 17 | 06:13 (C1) | 20:03 | | 18:43 | | 16:27 | 31 | 10:13 (C13) | 15:42 | 37 | 10:24 (C13) |
| 6 | 04:35 | | | 05:25 | | 05:58 (C1) | 06:27 | | 07:27 | | 07:33 | | 09:42 (C13) | 08:32 | | 09:48 (C13) |
| | 22:06 | | | 21:17 | 15 | 06:13 (C1) | 20:01 | | 18:40 | | 16:25 | 33 | 10:15 (C13) | 15:41 | 37 | 10:25 (C13) |
| 7 | 04:36 | | | 05:27 | | 06:00 (C1) | 06:29 | | 07:30 | | 07:36 | | 09:41 (C13) | 08:34 | | 09:48 (C13) |
| | 22:05 | | | 21:15 | 13 | 06:13 (C1) | 19:58 | | 18:38 | | 16:23 | 35 | 10:16 (C13) | 15:40 | 36 | 10:24 (C13) |
| 8 | 04:37 | | | 05:29 | | 06:02 (C1) | 06:31 | | 07:32 | | 07:38 | | 09:40 (C13) | 08:35 | | 09:50 (C13) |
| | 22:04 | | | 21:13 | 10 | 06:12 (C1) | 19:55 | | 18:35 | | 16:21 | 38 | 10:18 (C13) | 15:40 | 34 | 10:24 (C13) |
| 9 | 04:38 | | | 05:31 | | 06:04 (C1) | 06:33 | | 07:34 | | 07:40 | | 09:39 (C13) | 08:37 | | 09:50 (C13) |
| | 22:03 | | | 21:11 | 7 | 06:11 (C1) | 19:53 | | 18:32 | | 16:19 | 39 | 10:18 (C13) | 15:39 | 34 | 10:24 (C13) |
| 10 | 04:39 | | | 05:33 | | 06:06 (C1) | 06:35 | | 07:36 | | 07:42 | | 09:39 (C13) | 08:38 | | 09:51 (C13) |
| | 22:02 | | | 21:08 | 3 | 06:09 (C1) | 19:50 | | 18:30 | | 16:17 | 40 | 10:19 (C13) | 15:39 | 34 | 10:25 (C13) |
| 11 | 04:41 | | | 05:35 | | | 06:37 | | 07:38 | | 07:44 | | 09:39 (C13) | 08:39 | | 09:52 (C13) |
| | 22:01 | | | 21:06 | | | 19:47 | | 18:27 | | 16:15 | 41 | 10:20 (C13) | 15:38 | 32 | 10:24 (C13) |
| 12 | 04:42 | | | 05:37 | | | 06:39 | | 07:40 | | 07:46 | | 09:38 (C13) | 08:40 | | 09:53 (C13) |
| | 22:00 | | | 21:04 | | | 19:45 | | 18:25 | | 16:13 | 42 | 10:20 (C13) | 15:38 | 32 | 10:25 (C13) |
| 13 | 04:43 | | | 05:39 | | | 06:41 | | 07:42 | | 07:49 | | 09:38 (C13) | 08:42 | | 09:53 (C13) |
| | 21:59 | | | 21:02 | | | 19:42 | | 18:22 | | 16:11 | 43 | 10:21 (C13) | 15:38 | 32 | 10:25 (C13) |
| 14 | 04:45 | | | 05:41 | | | 06:43 | | 07:44 | | 07:51 | | 09:38 (C13) | 08:43 | | 09:54 (C13) |
| | 21:58 | | | 20:59 | | | 19:39 | | 18:19 | | 16:09 | 43 | 10:21 (C13) | 15:38 | 31 | 10:25 (C13) |
| 15 | 04:46 | | | 05:43 | | | 06:45 | | 07:46 | | 07:53 | | 09:37 (C13) | 08:44 | | 09:55 (C13) |
| | 21:57 | | | 20:57 | | | 19:37 | | 18:17 | | 16:08 | 44 | 10:21 (C13) | 15:38 | 30 | 10:25 (C13) |
| 16 | 04:48 | | | 05:45 | | | 06:47 | | 07:48 | | 07:55 | | 09:38 (C13) | 08:45 | | 09:55 (C13) |
| | 21:55 | | | 20:54 | | | 19:34 | | 18:14 | | 16:06 | 44 | 10:22 (C13) | 15:38 | 30 | 10:25 (C13) |
| 17 | 04:49 | | | 05:47 | | | 06:49 | | 07:50 | | 07:57 | | 09:38 (C13) | 08:46 | | 09:56 (C13) |
| | 21:54 | | | 20:52 | | | 19:31 | | 18:12 | | 16:04 | 44 | 10:22 (C13) | 15:38 | 30 | 10:26 (C13) |
| 18 | 04:51 | | | 05:49 | | | 06:51 | | 07:52 | | 07:59 | | 09:38 (C13) | 08:46 | | 09:57 (C13) |
| | 21:52 | | | 20:50 | | | 19:29 | | 18:09 | | 16:02 | 45 | 10:23 (C13) | 15:38 | 29 | 10:26 (C13) |
| 19 | 04:52 | | | 05:51 | | | 06:53 | | 07:55 | | 08:01 | | 09:38 (C13) | 08:47 | | 09:57 (C13) |
| | 21:51 | | | 20:47 | | | 19:26 | | 18:07 | | 16:01 | 45 | 10:23 (C13) | 15:38 | 29 | 10:26 (C13) |
| 20 | 04:54 | | | 05:53 | | | 06:55 | | 07:57 | | 08:03 | | 09:38 (C13) | 08:48 | | 09:58 (C13) |
| | 21:49 | | | 20:45 | | | 19:23 | | 18:04 | | 15:59 | 45 | 10:23 (C13) | 15:39 | 29 | 10:27 (C13) |
| 21 | 04:56 | | | 05:55 | | | 06:57 | | 07:59 | | 08:05 | | 09:38 (C13) | 08:48 | | 09:59 (C13) |
| | 21:48 | | | 20:42 | | | 19:20 | | 18:02 | | 15:58 | 45 | 10:23 (C13) | 15:39 | 28 | 10:27 (C13) |
| 22 | 04:57 | | | 05:57 | | | 06:59 | | 08:01 | | 08:07 | | 09:39 (C13) | 08:49 | | 09:59 (C13) |
| | 21:46 | | | 20:40 | | | 19:18 | | 17:59 | | 15:56 | 45 | 10:24 (C13) | 15:39 | 28 | 10:27 (C13) |
| 23 | 04:59 | | | 05:59 | | | 07:01 | | 08:03 | | 08:09 | | 09:40 (C13) | 08:50 | | 10:00 (C13) |
| | 21:45 | | | 20:37 | | | 19:15 | | 17:57 | | 15:55 | 44 | 10:24 (C13) | 15:40 | 28 | 10:28 (C13) |
| 24 | 05:01 | | 06:01 (C1) | 06:01 | | | 07:03 | | 08:05 | | 08:11 | | 09:40 (C13) | 08:50 | | 10:00 (C13) |
| | 21:43 | 7 | 06:08 (C1) | 20:35 | | | 19:12 | | 17:55 | | 15:53 | 44 | 10:24 (C13) | 15:41 | 29 | 10:29 (C13) |
| 25 | 05:03 | | 05:59 (C1) | 06:03 | | | 07:05 | | 07:07 | | 08:13 | | 09:40 (C13) | 08:50 | | 10:00 (C13) |
| | 21:41 | 11 | 06:10 (C1) | 20:32 | | | 19:10 | | 16:52 | | 15:52 | 44 | 10:24 (C13) | 15:41 | 29 | 10:29 (C13) |
| 26 | 05:04 | | 05:58 (C1) | 06:05 | | | 07:07 | | 07:10 | | 08:15 | | 09:41 (C13) | 08:51 | | 10:00 (C13) |
| | 21:39 | 13 | 06:11 (C1) | 20:30 | | | 19:07 | | 16:50 | | 15:51 | 42 | 10:23 (C13) | 15:42 | 30 | 10:30 (C13) |
| 27 | 05:06 | | 05:57 (C1) | 06:07 | | | 07:09 | | 07:12 | | 08:17 | | 09:42 (C13) | 08:51 | | 10:00 (C13) |
| | 21:38 | 15 | 06:12 (C1) | 20:27 | | | 19:04 | | 16:47 | | 15:49 | 42 | 10:24 (C13) | 15:43 | 30 | 10:30 (C13) |
| 28 | 05:08 | | 05:56 (C1) | 06:09 | | | 07:11 | | 07:14 | | 08:19 | | 09:43 (C13) | 08:51 | | 10:01 (C13) |
| | 21:36 | 16 | 06:12 (C1) | 20:24 | | | 19:02 | | 16:45 | | 15:48 | 41 | 10:24 (C13) | 15:44 | 30 | 10:31 (C13) |
| 29 | 05:10 | | 05:55 (C1) | 06:11 | | | 07:13 | | 07:16 | | 08:21 | | 09:43 (C13) | 08:51 | | 10:01 (C13) |
| | 21:34 | 18 | 06:13 (C1) | 20:22 | | | 18:59 | | 16:43 | | 15:47 | 41 | 10:24 (C13) | 15:45 | 31 | 10:32 (C13) |
| 30 | 05:12 | | 05:55 (C1) | 06:13 | | | 07:15 | | 07:18 | | 08:22 | | 09:44 (C13) | 08:51 | | 10:01 (C13) |
| | 21:32 | 19 | 06:14 (C1) | 20:19 | | | 18:56 | | 16:40 | | 15:46 | 40 | 10:24 (C13) | 15:46 | 32 | 10:33 (C13) |
| 31 | 05:14 | | 05:55 (C1) | 06:15 | | | | | 07:20 | | | | | 08:51 | | 10:02 (C13) |
| | 21:30 | 20 | 06:15 (C1) | 20:17 | | | | | 16:38 | | | | | 15:47 | 32 | 10:34 (C13) |
| Potential sun hours | 529 | | | 469 | | | | 385 | 324 | | 247 | | | 216 | | |
| Total, worst case | | 119 | | | 146 | | | | | | 1164 | | | | 1001 | |
| Sun reduction | | 0.49 | | | 0.50 | | | | | | 0.08 | | | | 0.07 | |
| Oper. time red. | | 0.98 | | | 0.98 | | | | | | 0.98 | | | | 0.98 | |
| Wind dir. red. | | 0.67 | | | 0.67 | | | | | | 0.61 | | | | 0.61 | |
| Total reduction | | 0.31 | | | 0.32 | | | | | | 0.05 | | | | 0.04 | |
| Total, real | | 37 | | | 46 | | | | | | 56 | | | | 41 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345002) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (144)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|-------|-------------|-------------|-------------|-------|-------------|-------|-------|------------|------------|------------|-------|--|--|------|--|--|
| 1 | 08:51 | 10:05 (C13) | 08:15 | 10:11 (C13) | 07:11 | 06:49 | 05:33 | | 04:36 | | | | | | | | |
| | 15:48 | 35 | 10:40 (C13) | 16:45 | 43 | 10:54 (C13) | 17:48 | 19:53 | 20:55 | | | | | | | | |
| 2 | 08:50 | 10:06 (C13) | 08:13 | 10:12 (C13) | 07:08 | 06:46 | 05:30 | | 04:35 | | | | | | | | |
| | 15:49 | 35 | 10:41 (C13) | 16:47 | 41 | 10:53 (C13) | 17:50 | 19:55 | 20:57 | | | | | | | | |
| 3 | 08:50 | 10:05 (C13) | 08:11 | 10:13 (C13) | 07:06 | 06:43 | 05:28 | | 04:34 | | | | | | | | |
| | 15:51 | 36 | 10:41 (C13) | 16:50 | 40 | 10:53 (C13) | 17:52 | 19:57 | 21:00 | | | | | | | | |
| 4 | 08:50 | 10:05 (C13) | 08:09 | 10:14 (C13) | 07:03 | 06:41 | 05:26 | | 05:54 (C1) | 04:33 | | | | | | | |
| | 15:52 | 37 | 10:42 (C13) | 16:52 | 38 | 10:52 (C13) | 17:54 | 19:59 | 21:02 | 1 | 05:55 (C1) | 21:57 | | | | | |
| 5 | 08:49 | 10:06 (C13) | 08:07 | 10:15 (C13) | 07:00 | 06:38 | 05:23 | | 05:52 (C1) | 04:32 | | | | | | | |
| | 15:53 | 37 | 10:43 (C13) | 16:54 | 37 | 10:52 (C13) | 17:56 | 20:01 | 21:04 | 5 | 05:57 (C1) | 21:58 | | | | | |
| 6 | 08:49 | 10:06 (C13) | 08:05 | 10:16 (C13) | 06:58 | 06:35 | 05:21 | | 05:50 (C1) | 04:31 | | | | | | | |
| | 15:55 | 38 | 10:44 (C13) | 16:56 | 34 | 10:50 (C13) | 17:58 | 20:03 | 21:06 | 8 | 05:58 (C1) | 21:59 | | | | | |
| 7 | 08:48 | 10:06 (C13) | 08:03 | 10:18 (C13) | 06:55 | 06:33 | 05:19 | | 05:48 (C1) | 04:30 | | | | | | | |
| | 15:56 | 39 | 10:45 (C13) | 16:59 | 31 | 10:49 (C13) | 18:00 | 20:05 | 21:08 | 11 | 05:59 (C1) | 22:00 | | | | | |
| 8 | 08:48 | 10:06 (C13) | 08:01 | 10:20 (C13) | 06:53 | 06:30 | 05:17 | | 05:46 (C1) | 04:29 | | | | | | | |
| | 15:58 | 39 | 10:45 (C13) | 17:01 | 27 | 10:47 (C13) | 18:03 | 20:08 | 21:10 | 14 | 06:00 (C1) | 22:01 | | | | | |
| 9 | 08:47 | 10:06 (C13) | 07:58 | 10:21 (C13) | 06:50 | 06:28 | 05:15 | | 05:44 (C1) | 04:29 | | | | | | | |
| | 15:59 | 40 | 10:46 (C13) | 17:03 | 24 | 10:45 (C13) | 18:05 | 20:10 | 21:12 | 16 | 06:00 (C1) | 22:02 | | | | | |
| 10 | 08:46 | 10:06 (C13) | 07:56 | 10:24 (C13) | 06:47 | 06:25 | 05:13 | | 05:42 (C1) | 04:28 | | | | | | | |
| | 16:01 | 41 | 10:47 (C13) | 17:05 | 18 | 10:42 (C13) | 18:07 | 20:12 | 21:14 | 18 | 06:00 (C1) | 22:03 | | | | | |
| 11 | 08:45 | 10:06 (C13) | 07:54 | 10:29 (C13) | 06:45 | 06:22 | 05:11 | | 05:40 (C1) | 04:27 | | | | | | | |
| | 16:03 | 42 | 10:48 (C13) | 17:08 | 9 | 10:38 (C13) | 18:09 | 20:14 | 21:16 | 20 | 06:00 (C1) | 22:04 | | | | | |
| 12 | 08:44 | 10:06 (C13) | 07:52 | | | 06:42 | 06:20 | 05:08 | 05:40 (C1) | 04:27 | | | | | | | |
| | 16:04 | 43 | 10:49 (C13) | 17:10 | | 18:11 | 20:16 | 21:18 | 20 | 06:00 (C1) | 22:05 | | | | | | |
| 13 | 08:43 | 10:06 (C13) | 07:49 | | | 06:40 | 06:17 | 05:06 | 05:40 (C1) | 04:26 | | | | | | | |
| | 16:06 | 43 | 10:49 (C13) | 17:12 | | 18:13 | 20:18 | 21:20 | 20 | 06:00 (C1) | 22:06 | | | | | | |
| 14 | 08:42 | 10:06 (C13) | 07:47 | | | 06:37 | 06:14 | 05:04 | 05:40 (C1) | 04:26 | | | | | | | |
| | 16:08 | 44 | 10:50 (C13) | 17:14 | | 18:15 | 20:20 | 21:22 | 21 | 06:01 (C1) | 22:07 | | | | | | |
| 15 | 08:41 | 10:06 (C13) | 07:45 | | | 06:34 | 06:12 | 05:03 | 05:40 (C1) | 04:26 | | | | | | | |
| | 16:10 | 44 | 10:50 (C13) | 17:17 | | 18:18 | 20:22 | 21:24 | 20 | 06:00 (C1) | 22:07 | | | | | | |
| 16 | 08:40 | 10:06 (C13) | 07:43 | | | 06:32 | 06:09 | 05:01 | 05:40 (C1) | 04:25 | | | | | | | |
| | 16:12 | 45 | 10:51 (C13) | 17:19 | | 18:20 | 20:24 | 21:25 | 20 | 06:00 (C1) | 22:08 | | | | | | |
| 17 | 08:39 | 10:07 (C13) | 07:40 | | | 06:29 | 06:07 | 04:59 | 05:41 (C1) | 04:25 | | | | | | | |
| | 16:14 | 45 | 10:52 (C13) | 17:21 | | 18:22 | 20:26 | 21:27 | 19 | 06:00 (C1) | 22:08 | | | | | | |
| 18 | 08:37 | 10:07 (C13) | 07:38 | | | 06:26 | 06:04 | 04:57 | 05:42 (C1) | 04:25 | | | | | | | |
| | 16:16 | 45 | 10:52 (C13) | 17:23 | | 18:24 | 20:28 | 21:29 | 17 | 05:59 (C1) | 22:09 | | | | | | |
| 19 | 08:36 | 10:06 (C13) | 07:36 | | | 06:24 | 06:02 | 04:55 | 05:42 (C1) | 04:25 | | | | | | | |
| | 16:18 | 46 | 10:52 (C13) | 17:26 | | 18:26 | 20:30 | 21:31 | 16 | 05:58 (C1) | 22:09 | | | | | | |
| 20 | 08:35 | 10:07 (C13) | 07:33 | | | 06:21 | 05:59 | 04:53 | 05:43 (C1) | 04:25 | | | | | | | |
| | 16:20 | 46 | 10:53 (C13) | 17:28 | | 18:28 | 20:33 | 21:33 | 14 | 05:57 (C1) | 22:10 | | | | | | |
| 21 | 08:33 | 10:07 (C13) | 07:31 | | | 06:18 | 05:57 | 04:52 | 05:44 (C1) | 04:25 | | | | | | | |
| | 16:22 | 46 | 10:53 (C13) | 17:30 | | 18:30 | 20:35 | 21:35 | 12 | 05:56 (C1) | 22:10 | | | | | | |
| 22 | 08:32 | 10:07 (C13) | 07:28 | | | 06:16 | 05:54 | 04:50 | 05:46 (C1) | 04:25 | | | | | | | |
| | 16:24 | 47 | 10:54 (C13) | 17:32 | | 18:32 | 20:37 | 21:37 | 9 | 05:55 (C1) | 22:10 | | | | | | |
| 23 | 08:30 | 10:07 (C13) | 07:26 | | | 06:13 | 05:52 | 04:48 | 05:49 (C1) | 04:26 | | | | | | | |
| | 16:26 | 47 | 10:54 (C13) | 17:34 | | 18:34 | 20:39 | 21:38 | 4 | 05:53 (C1) | 22:10 | | | | | | |
| 24 | 08:29 | 10:08 (C13) | 07:23 | | | 06:10 | 05:49 | 04:47 | | 04:26 | | | | | | | |
| | 16:28 | 47 | 10:55 (C13) | 17:37 | | 18:36 | 20:41 | 21:40 | | 22:10 | | | | | | | |
| 25 | 08:27 | 10:08 (C13) | 07:21 | | | 06:07 | 05:47 | 04:45 | | 04:26 | | | | | | | |
| | 16:30 | 47 | 10:55 (C13) | 17:39 | | 18:38 | 20:43 | 21:42 | | 22:10 | | | | | | | |
| 26 | 08:26 | 10:09 (C13) | 07:18 | | | 06:05 | 05:44 | 04:44 | | 04:27 | | | | | | | |
| | 16:32 | 46 | 10:55 (C13) | 17:41 | | 18:41 | 20:45 | 21:43 | | 22:10 | | | | | | | |
| 27 | 08:24 | 10:09 (C13) | 07:16 | | | 06:02 | 05:42 | 04:42 | | 04:27 | | | | | | | |
| | 16:34 | 46 | 10:55 (C13) | 17:43 | | 18:43 | 20:47 | 21:45 | | 22:10 | | | | | | | |
| 28 | 08:22 | 10:09 (C13) | 07:13 | | | 05:59 | 05:40 | 04:41 | | 04:28 | | | | | | | |
| | 16:36 | 46 | 10:55 (C13) | 17:45 | | 18:45 | 20:49 | 21:47 | | 22:10 | | | | | | | |
| 29 | 08:20 | 10:10 (C13) | | | | 06:57 | 05:37 | 04:40 | | 04:29 | | | | | | | |
| | 16:39 | 45 | 10:55 (C13) | | | 19:47 | 20:51 | 21:48 | | 22:10 | | | | | | | |
| 30 | 08:18 | 10:11 (C13) | | | | 06:54 | 05:35 | 04:38 | | 04:29 | | | | | | | |
| | 16:41 | 44 | 10:55 (C13) | | | 19:49 | 20:53 | 21:50 | | 22:09 | | | | | | | |
| 31 | 08:17 | 10:11 (C13) | | | | 06:51 | | 04:37 | | | | | | | | | |
| | 16:43 | 44 | 10:55 (C13) | | | 19:51 | | 21:51 | | | | | | | | | |
| Potential sun hours | 235 | | 266 | | | 366 | 426 | 508 | | 529 | | | | | | | |
| Total, worst case | 1325 | | 342 | | | | | 285 | | | | | | | | | |
| Sun reduction | 0.13 | | 0.20 | | | | | 0.57 | | | | | | | | | |
| Oper. time red. | 0.98 | | 0.98 | | | | | 0.98 | | | | | | | | | |
| Wind dir. red. | 0.61 | | 0.61 | | | | | 0.67 | | | | | | | | | |
| Total reduction | 0.08 | | 0.12 | | | | | 0.36 | | | | | | | | | |
| Total, real | 103 | | 40 | | | | | 103 | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345002) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (144)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|------------|------------|------------|-------|-------------|-------------|-------------|-------------|----------|-------------|
| 1 | 04:30 | 05:16 | 05:50 (C1) | 06:17 | 07:17 | 07:23 | 09:53 (C13) | 08:24 | 09:48 (C13) | | |
| | 22:09 | 21:28 | 21 | 06:11 (C1) | 20:14 | 18:54 | 19 | 10:12 (C13) | 15:45 | 42 | 10:30 (C13) |
| 2 | 04:31 | 05:18 | 05:51 (C1) | 06:19 | 07:19 | 07:25 | 09:50 (C13) | 08:26 | 09:49 (C13) | | |
| | 22:09 | 21:26 | 20 | 06:11 (C1) | 20:11 | 18:51 | 16:34 | 25 | 10:15 (C13) | 15:44 | 41 |
| 3 | 04:32 | 05:19 | 05:53 (C1) | 06:21 | 07:21 | 07:27 | 09:49 (C13) | 08:28 | 09:49 (C13) | | |
| | 22:08 | 21:24 | 17 | 06:10 (C1) | 20:09 | 18:48 | 16:32 | 28 | 10:17 (C13) | 15:43 | 40 |
| 4 | 04:33 | 05:21 | 05:55 (C1) | 06:23 | 07:23 | 07:29 | 09:47 (C13) | 08:29 | 09:50 (C13) | | |
| | 22:07 | 21:22 | 15 | 06:10 (C1) | 20:06 | 18:46 | 16:29 | 32 | 10:19 (C13) | 15:42 | 39 |
| 5 | 04:34 | 05:23 | 05:56 (C1) | 06:25 | 07:25 | 07:31 | 09:45 (C13) | 08:31 | 09:51 (C13) | | |
| | 22:07 | 21:20 | 13 | 06:09 (C1) | 20:03 | 18:43 | 16:27 | 35 | 10:20 (C13) | 15:42 | 39 |
| 6 | 04:35 | 05:25 | 05:58 (C1) | 06:27 | 07:27 | 07:33 | 09:45 (C13) | 08:32 | 09:52 (C13) | | |
| | 22:06 | 21:17 | 10 | 06:08 (C1) | 20:01 | 18:40 | 16:25 | 36 | 10:21 (C13) | 15:41 | 38 |
| 7 | 04:36 | 05:27 | 06:00 (C1) | 06:29 | 07:30 | 07:36 | 09:44 (C13) | 08:34 | 09:52 (C13) | | |
| | 22:05 | 21:15 | 7 | 06:07 (C1) | 19:58 | 18:38 | 16:23 | 38 | 10:22 (C13) | 15:40 | 37 |
| 8 | 04:37 | 05:29 | 06:02 (C1) | 06:31 | 07:32 | 07:38 | 09:44 (C13) | 08:35 | 09:53 (C13) | | |
| | 22:04 | 21:13 | 4 | 06:06 (C1) | 19:55 | 18:35 | 16:21 | 40 | 10:24 (C13) | 15:40 | 37 |
| 9 | 04:38 | 05:31 | | 06:33 | 07:34 | 07:40 | 09:43 (C13) | 08:37 | 09:54 (C13) | | |
| | 22:03 | 21:11 | | 19:53 | 18:32 | 16:19 | 41 | 10:24 (C13) | 15:39 | 35 | 10:29 (C13) |
| 10 | 04:39 | 05:33 | | 06:35 | 07:36 | 07:42 | 09:43 (C13) | 08:38 | 09:55 (C13) | | |
| | 22:02 | 21:08 | | 19:50 | 18:30 | 16:17 | 42 | 10:25 (C13) | 15:39 | 35 | 10:30 (C13) |
| 11 | 04:41 | 05:35 | | 06:37 | 07:38 | 07:44 | 09:42 (C13) | 08:39 | 09:55 (C13) | | |
| | 22:01 | 21:06 | | 19:47 | 18:27 | 16:15 | 44 | 10:26 (C13) | 15:38 | 35 | 10:30 (C13) |
| 12 | 04:42 | 05:37 | | 06:39 | 07:40 | 07:46 | 09:41 (C13) | 08:40 | 09:57 (C13) | | |
| | 22:00 | 21:04 | | 19:45 | 18:25 | 16:13 | 45 | 10:26 (C13) | 15:38 | 34 | 10:31 (C13) |
| 13 | 04:43 | 05:39 | | 06:41 | 07:42 | 07:49 | 09:42 (C13) | 08:42 | 09:57 (C13) | | |
| | 21:59 | 21:02 | | 19:42 | 18:22 | 16:11 | 45 | 10:27 (C13) | 15:38 | 34 | 10:31 (C13) |
| 14 | 04:45 | 05:41 | | 06:43 | 07:44 | 07:51 | 09:41 (C13) | 08:43 | 09:58 (C13) | | |
| | 21:58 | 20:59 | | 19:39 | 18:19 | 16:09 | 46 | 10:27 (C13) | 15:38 | 33 | 10:31 (C13) |
| 15 | 04:46 | 05:43 | | 06:45 | 07:46 | 07:53 | 09:41 (C13) | 08:44 | 09:58 (C13) | | |
| | 21:57 | 20:57 | | 19:37 | 18:17 | 16:08 | 46 | 10:27 (C13) | 15:38 | 33 | 10:31 (C13) |
| 16 | 04:48 | 05:45 | | 06:47 | 07:48 | 07:55 | 09:42 (C13) | 08:45 | 09:59 (C13) | | |
| | 21:55 | 20:54 | | 19:34 | 18:14 | 16:06 | 46 | 10:28 (C13) | 15:38 | 32 | 10:31 (C13) |
| 17 | 04:49 | 05:47 | | 06:49 | 07:50 | 07:57 | 09:41 (C13) | 08:46 | 10:00 (C13) | | |
| | 21:54 | 20:52 | | 19:31 | 18:12 | 16:04 | 47 | 10:28 (C13) | 15:38 | 31 | 10:31 (C13) |
| 18 | 04:51 | 05:49 | | 06:51 | 07:52 | 07:59 | 09:42 (C13) | 08:46 | 10:01 (C13) | | |
| | 21:52 | 20:50 | | 19:29 | 18:09 | 16:02 | 47 | 10:29 (C13) | 15:38 | 31 | 10:32 (C13) |
| 19 | 04:52 | 05:51 | | 06:53 | 07:55 | 08:01 | 09:42 (C13) | 08:47 | 10:01 (C13) | | |
| | 21:51 | 20:47 | | 19:26 | 18:07 | 16:01 | 47 | 10:29 (C13) | 15:38 | 30 | 10:31 (C13) |
| 20 | 04:54 | 05:53 | | 06:55 | 07:57 | 08:03 | 09:42 (C13) | 08:48 | 10:01 (C13) | | |
| | 21:49 | 20:45 | | 19:23 | 18:04 | 15:59 | 47 | 10:29 (C13) | 15:39 | 31 | 10:32 (C13) |
| 21 | 04:56 | 05:57 (C1) | 05:55 | 06:57 | 07:59 | 08:05 | 09:42 (C13) | 08:48 | 10:02 (C13) | | |
| | 21:48 | 7 | 06:04 (C1) | 20:42 | 19:20 | 18:02 | 15:58 | 47 | 10:29 (C13) | 15:39 | 31 |
| 22 | 04:57 | 05:55 (C1) | 05:57 | 06:59 | 08:01 | 08:07 | 09:43 (C13) | 08:49 | 10:02 (C13) | | |
| | 21:46 | 11 | 06:06 (C1) | 20:40 | 19:18 | 17:59 | 15:56 | 46 | 10:29 (C13) | 15:39 | 31 |
| 23 | 04:59 | 05:54 (C1) | 05:59 | 07:01 | 08:03 | 08:09 | 09:43 (C13) | 08:50 | 10:03 (C13) | | |
| | 21:45 | 13 | 06:07 (C1) | 20:37 | 19:15 | 17:57 | 15:55 | 46 | 10:29 (C13) | 15:40 | 31 |
| 24 | 05:01 | 05:53 (C1) | 06:01 | 07:03 | 08:05 | 08:11 | 09:44 (C13) | 08:50 | 10:03 (C13) | | |
| | 21:43 | 15 | 06:08 (C1) | 20:35 | 19:12 | 17:55 | 15:53 | 45 | 10:29 (C13) | 15:41 | 31 |
| 25 | 05:03 | 05:53 (C1) | 06:03 | 07:05 | 07:07 | 08:13 | 09:44 (C13) | 08:50 | 10:04 (C13) | | |
| | 21:41 | 16 | 06:09 (C1) | 20:32 | 19:10 | 16:52 | 15:52 | 45 | 10:29 (C13) | 15:41 | 31 |
| 26 | 05:04 | 05:52 (C1) | 06:05 | 07:07 | 07:10 | 08:15 | 09:44 (C13) | 08:51 | 10:04 (C13) | | |
| | 21:39 | 17 | 06:09 (C1) | 20:30 | 19:07 | 16:50 | 15:51 | 45 | 10:29 (C13) | 15:42 | 31 |
| 27 | 05:06 | 05:52 (C1) | 06:07 | 07:09 | 07:12 | 08:17 | 09:46 (C13) | 08:51 | 10:04 (C13) | | |
| | 21:38 | 18 | 06:10 (C1) | 20:27 | 19:04 | 16:47 | 15:49 | 44 | 10:30 (C13) | 15:43 | 32 |
| 28 | 05:08 | 05:51 (C1) | 06:09 | 07:11 | 07:14 | 08:19 | 09:46 (C13) | 08:51 | 10:06 (C13) | | |
| | 21:36 | 19 | 06:10 (C1) | 20:24 | 19:02 | 16:45 | 15:48 | 44 | 10:30 (C13) | 15:44 | 32 |
| 29 | 05:10 | 05:51 (C1) | 06:11 | 07:13 | 07:16 | 08:21 | 09:47 (C13) | 08:51 | 10:05 (C13) | | |
| | 21:34 | 20 | 06:11 (C1) | 20:22 | 18:59 | 16:43 | 15:47 | 43 | 10:30 (C13) | 15:45 | 32 |
| 30 | 05:12 | 05:51 (C1) | 06:13 | 07:15 | 07:18 | 08:22 | 09:48 (C13) | 08:51 | 10:05 (C13) | | |
| | 21:32 | 20 | 06:11 (C1) | 20:19 | 18:56 | 16:40 | 15:46 | 42 | 10:30 (C13) | 15:46 | 33 |
| 31 | 05:14 | 05:51 (C1) | 06:15 | | 07:20 | 09:56 (C13) | | 08:51 | 10:06 (C13) | | |
| | 21:30 | 20 | 06:11 (C1) | 20:17 | 16:38 | 12 | 10:08 (C13) | 15:47 | 10:39 (C13) | | |
| Potential sun hours | 529 | | 469 | | 385 | 324 | | 247 | | 216 | |
| Total, worst case | 176 | | 107 | | | 12 | | 1243 | | 1055 | |
| Sun reduction | 0.49 | | 0.50 | | | 0.26 | | 0.08 | | 0.07 | |
| Oper. time red. | 0.98 | | 0.98 | | | 0.98 | | 0.98 | | 0.98 | |
| Wind dir. red. | 0.67 | | 0.67 | | | 0.61 | | 0.61 | | 0.61 | |
| Total reduction | 0.31 | | 0.32 | | | 0.15 | | 0.05 | | 0.04 | |
| Total, real | 55 | | 34 | | | 2 | | 60 | | 43 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345005) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (143)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|-------|-------|------------|------------|-------|
| 1 | 08:51 | | 10:10 (C13) | 08:15 | | 10:19 (C13) | 07:11 | 06:49 | 05:33 | | 04:36 | |
| | 15:48 | 38 | 10:48 (C13) | 16:45 | 40 | 10:59 (C13) | 17:48 | 19:53 | 20:55 | | 21:53 | |
| 2 | 08:50 | | 10:11 (C13) | 08:13 | | 10:20 (C13) | 07:08 | 06:46 | 05:30 | | 04:35 | |
| | 15:49 | 38 | 10:49 (C13) | 16:47 | 38 | 10:58 (C13) | 17:50 | 19:55 | 20:57 | | 21:54 | |
| 3 | 08:50 | | 10:11 (C13) | 08:11 | | 10:21 (C13) | 07:06 | 06:43 | 05:28 | | 04:34 | |
| | 15:51 | 39 | 10:50 (C13) | 16:50 | 37 | 10:58 (C13) | 17:52 | 19:57 | 21:00 | | 21:55 | |
| 4 | 08:50 | | 10:11 (C13) | 08:09 | | 10:23 (C13) | 07:03 | 06:41 | 05:26 | 05:54 (C1) | 04:33 | |
| | 15:52 | 39 | 10:50 (C13) | 16:52 | 34 | 10:57 (C13) | 17:54 | 19:59 | 21:02 | 2 | 05:56 (C1) | 21:57 |
| 5 | 08:49 | | 10:11 (C13) | 08:07 | | 10:24 (C13) | 07:00 | 06:38 | 05:23 | | 05:52 (C1) | 04:32 |
| | 15:53 | 40 | 10:51 (C13) | 16:54 | 32 | 10:56 (C13) | 17:56 | 20:01 | 21:04 | 6 | 05:58 (C1) | 21:58 |
| 6 | 08:49 | | 10:11 (C13) | 08:05 | | 10:25 (C13) | 06:58 | 06:35 | 05:21 | | 05:50 (C1) | 04:31 |
| | 15:55 | 41 | 10:52 (C13) | 16:56 | 29 | 10:54 (C13) | 17:58 | 20:03 | 21:06 | 9 | 05:59 (C1) | 21:59 |
| 7 | 08:48 | | 10:11 (C13) | 08:03 | | 10:27 (C13) | 06:55 | 06:33 | 05:19 | | 05:48 (C1) | 04:30 |
| | 15:56 | 41 | 10:52 (C13) | 16:59 | 25 | 10:52 (C13) | 18:00 | 20:05 | 21:08 | 12 | 06:00 (C1) | 22:00 |
| 8 | 08:48 | | 10:11 (C13) | 08:01 | | 10:30 (C13) | 06:53 | 06:30 | 05:17 | | 05:46 (C1) | 04:29 |
| | 15:58 | 42 | 10:53 (C13) | 17:01 | 20 | 10:50 (C13) | 18:03 | 20:08 | 21:10 | 15 | 06:01 (C1) | 22:01 |
| 9 | 08:47 | | 10:12 (C13) | 07:58 | | 10:33 (C13) | 06:50 | 06:28 | 05:15 | | 05:44 (C1) | 04:28 |
| | 15:59 | 42 | 10:54 (C13) | 17:03 | 13 | 10:46 (C13) | 18:05 | 20:10 | 21:12 | 17 | 06:01 (C1) | 22:02 |
| 10 | 08:46 | | 10:12 (C13) | 07:56 | | | 06:47 | 06:25 | 05:13 | | 05:42 (C1) | 04:28 |
| | 16:01 | 43 | 10:55 (C13) | 17:05 | | | 18:07 | 20:12 | 21:14 | 19 | 06:01 (C1) | 22:03 |
| 11 | 08:45 | | 10:12 (C13) | 07:54 | | | 06:45 | 06:22 | 05:11 | | 05:41 (C1) | 04:27 |
| | 16:03 | 43 | 10:55 (C13) | 17:08 | | | 18:09 | 20:14 | 21:16 | 20 | 06:01 (C1) | 22:04 |
| 12 | 08:44 | | 10:12 (C13) | 07:52 | | | 06:42 | 06:20 | 05:08 | | 05:40 (C1) | 04:27 |
| | 16:04 | 44 | 10:56 (C13) | 17:10 | | | 18:11 | 20:16 | 21:18 | 21 | 06:01 (C1) | 22:05 |
| 13 | 08:43 | | 10:12 (C13) | 07:49 | | | 06:40 | 06:17 | 05:06 | | 05:40 (C1) | 04:26 |
| | 16:06 | 44 | 10:56 (C13) | 17:12 | | | 18:13 | 20:18 | 21:20 | 21 | 06:01 (C1) | 22:06 |
| 14 | 08:42 | | 10:12 (C13) | 07:47 | | | 06:37 | 06:14 | 05:04 | | 05:41 (C1) | 04:26 |
| | 16:08 | 45 | 10:57 (C13) | 17:14 | | | 18:15 | 20:20 | 21:22 | 21 | 06:02 (C1) | 22:07 |
| 15 | 08:41 | | 10:12 (C13) | 07:45 | | | 06:34 | 06:12 | 05:03 | | 05:41 (C1) | 04:26 |
| | 16:10 | 45 | 10:57 (C13) | 17:17 | | | 18:18 | 20:22 | 21:24 | 20 | 06:01 (C1) | 22:07 |
| 16 | 08:40 | | 10:13 (C13) | 07:43 | | | 06:32 | 06:09 | 05:01 | | 05:41 (C1) | 04:25 |
| | 16:12 | 45 | 10:58 (C13) | 17:19 | | | 18:20 | 20:24 | 21:25 | 19 | 06:00 (C1) | 22:08 |
| 17 | 08:39 | | 10:13 (C13) | 07:40 | | | 06:29 | 06:07 | 04:59 | | 05:42 (C1) | 04:25 |
| | 16:14 | 46 | 10:59 (C13) | 17:21 | | | 18:22 | 20:26 | 21:27 | 19 | 06:01 (C1) | 22:08 |
| 18 | 08:37 | | 10:13 (C13) | 07:38 | | | 06:26 | 06:04 | 04:57 | | 05:43 (C1) | 04:25 |
| | 16:16 | 46 | 10:59 (C13) | 17:23 | | | 18:24 | 20:28 | 21:29 | 17 | 06:00 (C1) | 22:09 |
| 19 | 08:36 | | 10:13 (C13) | 07:35 | | | 06:24 | 06:02 | 04:55 | | 05:43 (C1) | 04:25 |
| | 16:18 | 46 | 10:59 (C13) | 17:26 | | | 18:26 | 20:30 | 21:31 | 16 | 05:59 (C1) | 22:09 |
| 20 | 08:35 | | 10:14 (C13) | 07:33 | | | 06:21 | 05:59 | 04:53 | | 05:44 (C1) | 04:25 |
| | 16:20 | 46 | 11:00 (C13) | 17:28 | | | 18:28 | 20:33 | 21:33 | 14 | 05:58 (C1) | 22:10 |
| 21 | 08:33 | | 10:14 (C13) | 07:31 | | | 06:18 | 05:57 | 04:52 | | 05:45 (C1) | 04:25 |
| | 16:22 | 46 | 11:00 (C13) | 17:30 | | | 18:30 | 20:35 | 21:35 | 12 | 05:57 (C1) | 22:10 |
| 22 | 08:32 | | 10:14 (C13) | 07:28 | | | 06:16 | 05:54 | 04:50 | | 05:47 (C1) | 04:25 |
| | 16:24 | 46 | 11:00 (C13) | 17:32 | | | 18:32 | 20:37 | 21:37 | 9 | 05:56 (C1) | 22:10 |
| 23 | 08:30 | | 10:14 (C13) | 07:26 | | | 06:13 | 05:52 | 04:48 | | 05:50 (C1) | 04:26 |
| | 16:26 | 46 | 11:00 (C13) | 17:34 | | | 18:34 | 20:39 | 21:38 | 4 | 05:54 (C1) | 22:10 |
| 24 | 08:29 | | 10:15 (C13) | 07:23 | | | 06:10 | 05:49 | 04:47 | | | 04:26 |
| | 16:28 | 46 | 11:01 (C13) | 17:37 | | | 18:36 | 20:41 | 21:40 | | | 22:10 |
| 25 | 08:27 | | 10:15 (C13) | 07:21 | | | 06:07 | 05:47 | 04:45 | | | 04:26 |
| | 16:30 | 46 | 11:01 (C13) | 17:39 | | | 18:38 | 20:43 | 21:42 | | | 22:10 |
| 26 | 08:26 | | 10:16 (C13) | 07:18 | | | 06:05 | 05:44 | 04:44 | | | 04:27 |
| | 16:32 | 45 | 11:01 (C13) | 17:41 | | | 18:41 | 20:45 | 21:43 | | | 22:10 |
| 27 | 08:24 | | 10:16 (C13) | 07:16 | | | 06:02 | 05:42 | 04:42 | | | 04:27 |
| | 16:34 | 45 | 11:01 (C13) | 17:43 | | | 18:43 | 20:47 | 21:45 | | | 22:10 |
| 28 | 08:22 | | 10:17 (C13) | 07:13 | | | 05:59 | 05:40 | 04:41 | | | 04:28 |
| | 16:36 | 44 | 11:01 (C13) | 17:45 | | | 18:45 | 20:49 | 21:47 | | | 22:10 |
| 29 | 08:20 | | 10:17 (C13) | | | | 06:57 | 05:37 | 04:40 | | | 04:29 |
| | 16:39 | 44 | 11:01 (C13) | | | | 19:47 | 20:51 | 21:48 | | | 22:10 |
| 30 | 08:18 | | 10:18 (C13) | | | | 06:54 | 05:35 | 04:38 | | | 04:29 |
| | 16:41 | 43 | 11:01 (C13) | | | | 19:49 | 20:53 | 21:50 | | | 22:09 |
| 31 | 08:17 | | 10:19 (C13) | | | | 06:51 | | 04:37 | | | |
| | 16:43 | 41 | 11:00 (C13) | | | | 19:51 | | 21:51 | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | 426 | 508 | | 529 | |
| Total, worst case | 1345 | | | 268 | | | | | 293 | | | |
| Sun reduction | 0.13 | | | 0.20 | | | | | 0.57 | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | | | 0.98 | | | |
| Wind dir. red. | 0.61 | | | 0.61 | | | | | 0.67 | | | |
| Total reduction | 0.08 | | | 0.12 | | | | | 0.36 | | | |
| Total, real | 104 | | | 31 | | | | | 106 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345005) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (143)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|---------------|------------|------------|----------|-------------|
| 1 | 04:30 | 05:16 | 05:51 (C1) | 06:17 | 07:17 | 07:23 |
| 2 | 22:09 | 21:28 | 21 | 06:12 (C1) | 20:14 | 18:54 |
| 2 | 04:31 | 05:18 | 05:51 (C1) | 06:19 | 07:19 | 07:25 |
| 3 | 22:09 | 21:26 | 21 | 06:12 (C1) | 20:11 | 18:51 |
| 3 | 04:32 | 05:19 | 05:53 (C1) | 06:21 | 07:21 | 07:27 |
| 4 | 22:08 | 21:24 | 19 | 06:12 (C1) | 20:09 | 18:48 |
| 4 | 04:33 | 05:21 | 05:55 (C1) | 06:23 | 07:23 | 07:29 |
| 5 | 22:07 | 21:22 | 16 | 06:11 (C1) | 20:06 | 18:46 |
| 5 | 04:34 | 05:23 | 05:56 (C1) | 06:25 | 07:25 | 07:31 |
| 6 | 22:07 | 21:20 | 14 | 06:10 (C1) | 20:03 | 18:43 |
| 6 | 04:35 | 05:25 | 05:58 (C1) | 06:27 | 07:27 | 07:33 |
| 7 | 22:06 | 21:17 | 11 | 06:09 (C1) | 20:01 | 18:40 |
| 7 | 04:36 | 05:27 | 06:00 (C1) | 06:29 | 07:30 | 07:36 |
| 8 | 22:05 | 21:15 | 8 | 06:08 (C1) | 19:58 | 18:38 |
| 8 | 04:37 | 05:29 | 06:02 (C1) | 06:31 | 07:32 | 07:38 |
| 9 | 22:04 | 21:13 | 5 | 06:07 (C1) | 19:55 | 18:35 |
| 9 | 04:38 | 05:31 | 06:04 (C1) | 06:33 | 07:34 | 07:40 |
| 10 | 22:03 | 21:11 | 1 | 06:05 (C1) | 19:53 | 18:32 |
| 10 | 04:39 | 05:33 | 06:35 | 07:36 | 07:42 | 07:48 |
| 11 | 22:02 | 21:08 | 19:50 | 18:30 | 16:17 | 40 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 07:44 | 09:50 (C13) |
| 12 | 22:01 | 21:06 | 19:47 | 18:27 | 16:15 | 41 |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | 07:46 | 09:49 (C13) |
| 13 | 22:00 | 21:04 | 19:45 | 18:25 | 16:13 | 43 |
| 13 | 04:43 | 05:39 | 06:41 | 07:42 | 07:49 | 09:49 (C13) |
| 14 | 21:59 | 21:02 | 19:42 | 18:22 | 16:11 | 44 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 07:51 | 09:49 (C13) |
| 15 | 21:58 | 20:59 | 19:39 | 18:19 | 16:09 | 44 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 07:53 | 09:48 (C13) |
| 16 | 21:57 | 20:57 | 19:37 | 18:17 | 16:08 | 45 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 07:55 | 09:49 (C13) |
| 17 | 21:55 | 20:54 | 19:34 | 18:14 | 16:06 | 45 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | 07:57 | 09:48 (C13) |
| 18 | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 46 |
| 18 | 04:51 | 05:49 | 06:51 | 07:52 | 07:59 | 09:49 (C13) |
| 19 | 21:52 | 20:50 | 19:29 | 18:09 | 16:02 | 46 |
| 19 | 04:52 | 05:51 | 06:53 | 07:55 | 08:01 | 09:49 (C13) |
| 20 | 21:51 | 20:47 | 19:26 | 18:07 | 16:01 | 46 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | 08:03 | 09:49 (C13) |
| 21 | 21:49 | 20:45 | 19:23 | 18:04 | 15:59 | 46 |
| 21 | 04:56 | 05:58 (C1) | 06:57 | 07:59 | 08:05 | 09:49 (C13) |
| 22 | 21:48 | 6 06:04 (C1) | 19:20 | 18:02 | 15:58 | 46 |
| 22 | 04:57 | 05:56 (C1) | 06:59 | 08:01 | 08:07 | 09:50 (C13) |
| 23 | 21:46 | 11 06:07 (C1) | 19:18 | 17:59 | 15:56 | 46 |
| 23 | 04:59 | 05:55 (C1) | 07:01 | 08:03 | 08:09 | 09:50 (C13) |
| 24 | 21:45 | 13 06:08 (C1) | 19:15 | 17:57 | 15:55 | 46 |
| 24 | 05:01 | 05:54 (C1) | 07:03 | 08:05 | 08:11 | 09:50 (C13) |
| 25 | 21:43 | 15 06:09 (C1) | 19:12 | 17:55 | 15:53 | 46 |
| 25 | 05:03 | 05:54 (C1) | 07:05 | 08:07 | 08:13 | 09:50 (C13) |
| 26 | 21:41 | 16 06:10 (C1) | 19:10 | 16:52 | 15:52 | 46 |
| 26 | 05:04 | 05:53 (C1) | 07:07 | 08:09 | 08:15 | 09:51 (C13) |
| 27 | 21:39 | 17 06:10 (C1) | 19:07 | 16:50 | 15:51 | 45 |
| 27 | 05:06 | 05:52 (C1) | 07:09 | 08:11 | 08:17 | 09:52 (C13) |
| 28 | 21:38 | 19 06:11 (C1) | 19:04 | 16:47 | 15:49 | 45 |
| 28 | 05:08 | 05:51 (C1) | 07:11 | 08:13 | 08:19 | 09:52 (C13) |
| 29 | 21:36 | 20 06:11 (C1) | 19:02 | 16:45 | 15:48 | 45 |
| 29 | 05:10 | 05:51 (C1) | 07:13 | 08:15 | 08:21 | 09:53 (C13) |
| 30 | 21:34 | 20 06:11 (C1) | 18:59 | 16:43 | 15:47 | 44 |
| 30 | 05:12 | 05:51 (C1) | 07:15 | 08:17 | 08:22 | 09:54 (C13) |
| 31 | 21:32 | 21 06:12 (C1) | 18:56 | 16:40 | 15:46 | 43 |
| 31 | 05:14 | 05:52 (C1) | 07:20 | 08:22 | 08:28 | 09:55 (C13) |
| | 21:30 | 20 06:12 (C1) | 20:17 | 16:38 | 15:47 | 37 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 178 | 116 | | | 1169 | 1162 |
| Sun reduction | 0.49 | 0.50 | | | 0.08 | 0.07 |
| Oper. time red. | 0.98 | 0.98 | | | 0.98 | 0.98 |
| Wind dir. red. | 0.67 | 0.67 | | | 0.61 | 0.61 |
| Total reduction | 0.31 | 0.32 | | | 0.05 | 0.04 |
| Total, real | 56 | 37 | | | 56 | 48 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Smelceja - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (216)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:33 | 08:25 15:44 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:33 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:57 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:34 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:13 | 07:40 17:21 | 06:29 18:21 | 06:06 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:25 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:38 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Smelceju majas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (197)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:16 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Spridiš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (82)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------------------|----------------------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 09:14 (C13) 09:54 (C13) | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 |
| 2 | 08:50 15:49 | 08:13 16:47 | 09:14 (C13) 09:55 (C13) | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 |
| 3 | 08:50 15:51 | 08:11 16:50 | 09:14 (C13) 09:56 (C13) | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 |
| 4 | 08:50 15:52 | 08:09 16:52 | 09:14 (C13) 09:57 (C13) | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 |
| 5 | 08:49 15:53 | 08:07 16:54 | 09:14 (C13) 09:57 (C13) | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 |
| 6 | 08:49 15:55 | 08:05 16:56 | 09:14 (C13) 09:57 (C13) | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 |
| 7 | 08:48 15:56 | 08:03 16:59 | 09:14 (C13) 09:57 (C13) | 06:55 18:01 | 06:33 20:05 | 05:19 21:08 |
| 8 | 08:48 15:58 | 08:01 17:01 | 09:14 (C13) 09:58 (C13) | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 |
| 9 | 08:47 15:59 | 07:58 17:03 | 09:14 (C13) 09:57 (C13) | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 |
| 10 | 08:46 16:01 | 07:56 17:05 | 09:14 (C13) 09:57 (C13) | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 |
| 11 | 08:45 16:03 | 07:54 17:08 | 09:15 (C13) 09:57 (C13) | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 |
| 12 | 08:44 16:05 | 07:52 17:10 | 09:15 (C13) 09:57 (C13) | 06:42 18:11 | 06:20 20:16 | 05:08 21:18 |
| 13 | 08:43 16:06 | 07:50 17:12 | 09:15 (C13) 09:57 (C13) | 06:40 18:13 | 06:17 20:18 | 05:06 21:20 |
| 14 | 08:42 16:08 | 07:47 17:14 | 09:15 (C13) 09:55 (C13) | 06:37 18:15 | 06:15 20:20 | 05:04 21:22 |
| 15 | 08:41 16:10 | 07:45 17:17 | 09:16 (C13) 09:55 (C13) | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 |
| 16 | 08:40 16:12 | 07:43 17:19 | 09:17 (C13) 09:54 (C13) | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 |
| 17 | 08:39 16:14 | 07:40 17:21 | 09:18 (C13) 09:53 (C13) | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 |
| 18 | 08:37 16:16 | 07:38 17:23 | 09:19 (C13) 09:51 (C13) | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 |
| 19 | 08:36 16:18 | 07:36 17:26 | 09:20 (C13) 09:50 (C13) | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 |
| 20 | 08:35 16:20 | 09:29 (C13) 09:36 (C13) | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 |
| 21 | 08:33 16:22 | 09:25 (C13) 09:39 (C13) | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 |
| 22 | 08:32 16:24 | 09:23 (C13) 09:42 (C13) | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 |
| 23 | 08:30 16:26 | 09:21 (C13) 09:44 (C13) | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 |
| 24 | 08:29 16:28 | 09:21 (C13) 09:46 (C13) | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 |
| 25 | 08:27 16:30 | 09:20 (C13) 09:48 (C13) | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:42 |
| 26 | 08:26 16:32 | 09:19 (C13) 09:49 (C13) | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 |
| 27 | 08:24 16:34 | 09:18 (C13) 09:50 (C13) | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 |
| 28 | 08:22 16:36 | 09:17 (C13) 09:51 (C13) | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:47 |
| 29 | 08:20 16:39 | 09:16 (C13) 09:52 (C13) | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 |
| 30 | 08:18 16:41 | 09:16 (C13) 09:53 (C13) | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 |
| 31 | 08:17 16:43 | 09:16 (C13) 09:54 (C13) | | 06:51 19:51 | | 04:37 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | 323 | 834 | | | | |
| Sun reduction | 0.13 | 0.20 | | | | |
| Oper. time red. | 0.98 | 0.98 | | | | |
| Wind dir. red. | 0.59 | 0.59 | | | | |
| Total reduction | 0.08 | 0.12 | | | | |
| Total, real | 25 | 98 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

SHADOW - Calendar

Shadow receptor: Spridiš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (82)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|-----------|---------|-------------|--------------------------|
| 1 | 04:30 | 05:16 | 06:17 | 07:17 | 07:23 | 08:44 (C13) 08:24 |
| | 22:09 | 21:28 | 20:14 | 18:54 | 16:36 | 43 09:27 (C13) 15:45 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 07:25 | 08:43 (C13) 08:26 |
| | 22:09 | 21:26 | 20:11 | 18:51 | 16:34 | 44 09:27 (C13) 15:44 |
| 3 | 04:32 | 05:19 | 06:21 | 07:21 | 07:27 | 08:44 (C13) 08:28 |
| | 22:08 | 21:24 | 20:09 | 18:48 | 16:32 | 43 09:27 (C13) 15:43 |
| 4 | 04:33 | 05:21 | 06:23 | 07:23 | 07:29 | 08:43 (C13) 08:29 |
| | 22:07 | 21:22 | 20:06 | 18:46 | 16:29 | 44 09:27 (C13) 15:42 |
| 5 | 04:34 | 05:23 | 06:25 | 07:25 | 07:31 | 08:43 (C13) 08:31 |
| | 22:07 | 21:20 | 20:03 | 18:43 | 16:27 | 43 09:26 (C13) 15:42 |
| 6 | 04:35 | 05:25 | 06:27 | 07:27 | 07:33 | 08:44 (C13) 08:32 |
| | 22:06 | 21:17 | 20:01 | 18:40 | 16:25 | 43 09:27 (C13) 15:41 |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | 07:36 | 08:44 (C13) 08:34 |
| | 22:05 | 21:15 | 19:58 | 18:38 | 16:23 | 42 09:26 (C13) 15:40 |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | 07:38 | 08:45 (C13) 08:35 |
| | 22:04 | 21:13 | 19:55 | 18:35 | 16:21 | 42 09:27 (C13) 15:40 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 07:40 | 08:45 (C13) 08:37 |
| | 22:03 | 21:11 | 19:53 | 18:32 | 16:19 | 41 09:26 (C13) 15:39 |
| 10 | 04:39 | 05:33 | 06:35 | 07:36 | 07:42 | 08:46 (C13) 08:38 |
| | 22:02 | 21:08 | 19:50 | 18:30 | 16:17 | 40 09:26 (C13) 15:39 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 07:44 | 08:47 (C13) 08:39 |
| | 22:01 | 21:06 | 19:47 | 18:27 | 16:15 | 38 09:25 (C13) 15:38 |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | 07:46 | 08:47 (C13) 08:40 |
| | 22:00 | 21:04 | 19:45 | 18:25 | 16:13 | 37 09:24 (C13) 15:38 |
| 13 | 04:43 | 05:39 | 06:41 | 07:42 | 07:49 | 08:48 (C13) 08:42 |
| | 21:59 | 21:02 | 19:42 | 18:22 | 16:11 | 36 09:24 (C13) 15:38 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 07:51 | 08:49 (C13) 08:43 |
| | 21:58 | 20:59 | 19:39 | 18:20 | 16:09 | 34 09:23 (C13) 15:38 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 07:53 | 08:50 (C13) 08:44 |
| | 21:57 | 20:57 | 19:37 | 18:17 | 16:08 | 32 09:22 (C13) 15:38 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 07:55 | 08:52 (C13) 08:45 |
| | 21:55 | 20:54 | 19:34 | 18:14 | 16:06 | 30 09:22 (C13) 15:38 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | 07:57 | 08:53 (C13) 08:46 |
| | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 28 09:21 (C13) 15:38 |
| 18 | 04:51 | 05:49 | 06:51 | 07:52 | 07:59 | 08:55 (C13) 08:46 |
| | 21:52 | 20:50 | 19:29 | 18:09 | 16:02 | 25 09:20 (C13) 15:38 |
| 19 | 04:52 | 05:51 | 06:53 | 07:55 | 10:01 (C13) | 08:01 |
| | 21:51 | 20:47 | 19:26 | 18:07 | 10:11 (C13) | 16:01 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | 09:56 (C13) | 08:03 |
| | 21:49 | 20:45 | 19:23 | 18:04 | 10:15 (C13) | 15:59 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | 09:53 (C13) | 08:05 |
| | 21:48 | 20:42 | 19:20 | 18:02 | 10:17 (C13) | 15:58 |
| 22 | 04:57 | 05:57 | 06:59 | 08:01 | 09:51 (C13) | 08:07 |
| | 21:46 | 20:40 | 19:18 | 17:59 | 10:19 (C13) | 15:56 |
| 23 | 04:59 | 05:59 | 07:01 | 08:03 | 09:50 (C13) | 08:09 |
| | 21:45 | 20:37 | 19:15 | 17:57 | 10:21 (C13) | 15:55 |
| 24 | 05:01 | 06:01 | 07:03 | 08:05 | 09:49 (C13) | 08:11 |
| | 21:43 | 20:35 | 19:12 | 17:55 | 10:22 (C13) | 15:53 |
| 25 | 05:03 | 06:03 | 07:05 | 07:07 | 08:47 (C13) | 08:13 |
| | 21:41 | 20:32 | 19:10 | 16:52 | 09:23 (C13) | 15:52 |
| 26 | 05:04 | 06:05 | 07:07 | 07:10 | 08:47 (C13) | 08:15 |
| | 21:39 | 20:30 | 19:07 | 16:50 | 09:24 (C13) | 15:51 |
| 27 | 05:06 | 06:07 | 07:09 | 07:12 | 08:46 (C13) | 08:17 |
| | 21:38 | 20:27 | 19:04 | 16:47 | 09:25 (C13) | 15:49 |
| 28 | 05:08 | 06:09 | 07:11 | 07:14 | 08:45 (C13) | 08:19 |
| | 21:36 | 20:24 | 19:02 | 16:45 | 09:25 (C13) | 15:48 |
| 29 | 05:10 | 06:11 | 07:13 | 07:16 | 08:45 (C13) | 08:21 |
| | 21:34 | 20:22 | 18:59 | 16:43 | 09:26 (C13) | 15:47 |
| 30 | 05:12 | 06:13 | 07:15 | 07:18 | 08:44 (C13) | 08:22 |
| | 21:32 | 20:19 | 18:56 | 16:41 | 09:26 (C13) | 15:46 |
| 31 | 05:14 | 06:15 | | 07:20 | 08:44 (C13) | 08:51 |
| | 21:30 | 20:17 | | 16:38 | 09:27 (C13) | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | 423 | 748 | 84 |
| Sun reduction | | | | 0.26 | 0.08 | 0.07 |
| Oper. time red. | | | | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | | 0.59 | 0.59 | 0.61 |
| Total reduction | | | | 0.15 | 0.05 | 0.04 |
| Total, real | | | | 64 | 36 | 4 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Spares - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (203)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:23 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:46 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:09 | 05:15 21:11 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:15 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:05 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:39 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:11 17:47 | 08:17 15:50 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:18 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:33 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Stacija Trepe 2 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (3)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:46 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:44 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:24 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:26 20:04 | 07:26 18:43 | 07:31 16:28 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:32 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:12 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:37 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:26 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:00 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:50 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:06 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:08 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:10 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Starumeni - Shadow Receptor: 1.0 × 1.0
Assumptions for shadow calculations

Azimuth: 0.0° Slope: 90.0° (121)

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 08:37 (C13) | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 08:34 (C13) | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 08:32 (C13) | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 08:30 (C13) | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 08:28 (C13) | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 08:27 (C13) | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 08:26 (C13) | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 08:27 (C13) | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 08:27 (C13) | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 08:26 (C13) | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 08:27 (C13) | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 08:27 (C13) | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 08:27 (C13) | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 08:28 (C13) | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 08:29 (C13) | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 08:30 (C13) | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 08:32 (C13) | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 08:34 (C13) | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 08:42 (C13) | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:51 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | | 06:08 18:38 | 05:47 20:43 | 04:45 21:42 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:15 17:50 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:17 17:48 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | | 05:59 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:19 17:45 | 08:51 15:44 |
| 29 | 08:20 16:39 | | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:21 17:43 | 08:51 15:45 |
| 30 | 08:19 16:41 | | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:22 17:41 | 08:51 15:46 |
| 31 | 08:17 16:43 | | | 06:51 19:51 | 05:32 21:51 | 04:37 21:51 | 04:30 21:51 | 05:14 21:30 | 06:15 20:17 | 07:20 18:56 | 08:24 17:40 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 216 |
| Total, worst case | | 343 | | | | | | | | | | 185 |
| Sun reduction | | 0.20 | | | | | | | | | | 0.07 |
| Oper. time red. | | 0.98 | | | | | | | | | | 0.98 |
| Wind dir. red. | | 0.61 | | | | | | | | | | 0.61 |
| Total reduction | | 0.12 | | | | | | | | | | 0.04 |
| Total, real | | 41 | | | | | | | 40 | 5 | | 8 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Stepi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (166)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Straumenini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | March | April | | May | | | June |
|---------------------|---------|------|-------------|----------|-------|-------|-------|------------|-------|----|------------|-------|
| 1 | 08:51 | | 10:12 (C13) | 08:15 | 07:11 | 06:49 | | | 05:33 | | 06:21 (C1) | 04:36 |
| | 15:48 | 34 | 10:46 (C13) | 16:45 | 17:48 | 19:53 | | | 20:55 | 10 | 06:31 (C1) | 21:53 |
| 2 | 08:51 | | 10:12 (C13) | 08:13 | 07:08 | 06:46 | | | 05:30 | | | 04:35 |
| | 15:49 | 35 | 10:47 (C13) | 16:47 | 17:50 | 19:55 | | | 20:58 | | | 21:54 |
| 3 | 08:50 | | 10:12 (C13) | 08:11 | 07:06 | 06:43 | | | 05:28 | | | 04:34 |
| | 15:51 | 35 | 10:47 (C13) | 16:50 | 17:52 | 19:57 | | | 21:00 | | | 21:55 |
| 4 | 08:50 | | 10:13 (C13) | 08:09 | 07:03 | 06:41 | | | 05:26 | | | 04:33 |
| | 15:52 | 34 | 10:47 (C13) | 16:52 | 17:54 | 19:59 | | | 21:02 | | | 21:57 |
| 5 | 08:49 | | 10:14 (C13) | 08:07 | 07:00 | 06:38 | | | 05:23 | | | 04:32 |
| | 15:53 | 34 | 10:48 (C13) | 16:54 | 17:56 | 20:01 | | | 21:04 | | | 21:58 |
| 6 | 08:49 | | 10:14 (C13) | 08:05 | 06:58 | 06:35 | | | 05:21 | | | 04:31 |
| | 15:55 | 34 | 10:48 (C13) | 16:56 | 17:58 | 20:03 | | | 21:06 | | | 21:59 |
| 7 | 08:48 | | 10:14 (C13) | 08:03 | 06:55 | 06:33 | | | 05:19 | | | 04:30 |
| | 15:56 | 35 | 10:49 (C13) | 16:59 | 18:00 | 20:05 | | | 21:08 | | | 22:00 |
| 8 | 08:48 | | 10:15 (C13) | 08:01 | 06:53 | 06:30 | | | 05:17 | | | 04:29 |
| | 15:58 | 34 | 10:49 (C13) | 17:01 | 18:03 | 20:08 | | | 21:10 | | | 22:01 |
| 9 | 08:47 | | 10:15 (C13) | 07:58 | 06:50 | 06:28 | | | 05:15 | | | 04:28 |
| | 15:59 | 34 | 10:49 (C13) | 17:03 | 18:05 | 20:10 | | | 21:12 | | | 22:02 |
| 10 | 08:46 | | 10:16 (C13) | 07:56 | 06:47 | 06:25 | | | 05:13 | | | 04:28 |
| | 16:01 | 34 | 10:50 (C13) | 17:05 | 18:07 | 20:12 | | | 21:14 | | | 22:03 |
| 11 | 08:45 | | 10:17 (C13) | 07:54 | 06:45 | 06:22 | | | 05:11 | | | 04:27 |
| | 16:03 | 33 | 10:50 (C13) | 17:08 | 18:09 | 20:14 | | | 21:16 | | | 22:04 |
| 12 | 08:44 | | 10:17 (C13) | 07:52 | 06:42 | 06:20 | | | 05:08 | | | 04:27 |
| | 16:04 | 33 | 10:50 (C13) | 17:10 | 18:11 | 20:16 | | | 21:18 | | | 22:05 |
| 13 | 08:43 | | 10:17 (C13) | 07:50 | 06:40 | 06:17 | | | 05:06 | | | 04:26 |
| | 16:06 | 33 | 10:50 (C13) | 17:12 | 18:13 | 20:18 | | | 21:20 | | | 22:06 |
| 14 | 08:42 | | 10:18 (C13) | 07:47 | 06:37 | 06:14 | | | 05:04 | | | 04:26 |
| | 16:08 | 32 | 10:50 (C13) | 17:14 | 18:15 | 20:20 | | | 21:22 | | | 22:07 |
| 15 | 08:41 | | 10:19 (C13) | 07:45 | 06:34 | 06:12 | | | 05:03 | | | 04:26 |
| | 16:10 | 32 | 10:51 (C13) | 17:17 | 18:18 | 20:22 | | | 21:24 | | | 22:07 |
| 16 | 08:40 | | 10:19 (C13) | 07:43 | 06:32 | 06:09 | | | 05:01 | | | 04:25 |
| | 16:12 | 31 | 10:50 (C13) | 17:19 | 18:20 | 20:24 | | | 21:26 | | | 22:08 |
| 17 | 08:39 | | 10:21 (C13) | 07:40 | 06:29 | 06:07 | | | 04:59 | | | 04:25 |
| | 16:14 | 30 | 10:51 (C13) | 17:21 | 18:22 | 20:26 | | | 21:27 | | | 22:08 |
| 18 | 08:38 | | 10:21 (C13) | 07:38 | 06:26 | 06:04 | | 06:30 (C1) | 04:57 | | | 04:25 |
| | 16:16 | 29 | 10:50 (C13) | 17:23 | 18:24 | 20:28 | 4 | 06:34 (C1) | 21:29 | | | 22:09 |
| 19 | 08:36 | | 10:22 (C13) | 07:36 | 06:24 | 06:02 | | 06:28 (C1) | 04:55 | | | 04:25 |
| | 16:18 | 27 | 10:49 (C13) | 17:26 | 18:26 | 20:30 | 8 | 06:36 (C1) | 21:31 | | | 22:09 |
| 20 | 08:35 | | 10:23 (C13) | 07:33 | 06:21 | 05:59 | | 06:25 (C1) | 04:53 | | | 04:25 |
| | 16:20 | 26 | 10:49 (C13) | 17:28 | 18:28 | 20:33 | 11 | 06:36 (C1) | 21:33 | | | 22:10 |
| 21 | 08:33 | | 10:24 (C13) | 07:31 | 06:18 | 05:57 | | 06:23 (C1) | 04:52 | | | 04:25 |
| | 16:22 | 25 | 10:49 (C13) | 17:30 | 18:30 | 20:35 | 14 | 06:37 (C1) | 21:35 | | | 22:10 |
| 22 | 08:32 | | 10:26 (C13) | 07:28 | 06:16 | 05:54 | | 06:21 (C1) | 04:50 | | | 04:25 |
| | 16:24 | 21 | 10:47 (C13) | 17:32 | 18:32 | 20:37 | 17 | 06:38 (C1) | 21:37 | | | 22:10 |
| 23 | 08:30 | | 10:27 (C13) | 07:26 | 06:13 | 05:52 | | 06:18 (C1) | 04:48 | | | 04:26 |
| | 16:26 | 19 | 10:46 (C13) | 17:34 | 18:34 | 20:39 | 19 | 06:37 (C1) | 21:38 | | | 22:10 |
| 24 | 08:29 | | 10:30 (C13) | 07:23 | 06:10 | 05:49 | | 06:17 (C1) | 04:47 | | | 04:26 |
| | 16:28 | 16 | 10:46 (C13) | 17:37 | 18:36 | 20:41 | 21 | 06:38 (C1) | 21:40 | | | 22:10 |
| 25 | 08:27 | | 10:32 (C13) | 07:21 | 06:07 | 05:47 | | 06:18 (C1) | 04:45 | | | 04:26 |
| | 16:30 | 11 | 10:43 (C13) | 17:39 | 18:38 | 20:43 | 20 | 06:38 (C1) | 21:42 | | | 22:10 |
| 26 | 08:26 | | | 07:18 | 06:05 | 05:44 | | 06:17 (C1) | 04:44 | | | 04:27 |
| | 16:32 | | | 17:41 | 18:41 | 20:45 | 20 | 06:37 (C1) | 21:43 | | | 22:10 |
| 27 | 08:24 | | | 07:16 | 06:02 | 05:42 | | 06:17 (C1) | 04:42 | | | 04:27 |
| | 16:34 | | | 17:43 | 18:43 | 20:47 | 19 | 06:36 (C1) | 21:45 | | | 22:10 |
| 28 | 08:22 | | | 07:13 | 05:59 | 05:40 | | 06:18 (C1) | 04:41 | | | 04:28 |
| | 16:36 | | | 17:45 | 18:45 | 20:49 | 18 | 06:36 (C1) | 21:47 | | | 22:10 |
| 29 | 08:20 | | | | 06:57 | 05:37 | | 06:19 (C1) | 04:40 | | | 04:29 |
| | 16:39 | | | | 19:47 | 20:51 | 16 | 06:35 (C1) | 21:48 | | | 22:10 |
| 30 | 08:18 | | | | 06:54 | 05:35 | | 06:19 (C1) | 04:38 | | | 04:29 |
| | 16:41 | | | | 19:49 | 20:53 | 14 | 06:33 (C1) | 21:50 | | | 22:09 |
| 31 | 08:17 | | | | 06:51 | | | | 04:37 | | | |
| | 16:43 | | | | 19:51 | | | | 21:51 | | | |
| Potential sun hours | 235 | | | 266 | 366 | 426 | | | 508 | | | 529 |
| Total, worst case | | 741 | | | | 201 | | | 10 | | | |
| Sun reduction | | 0.13 | | | | 0.50 | | | 0.57 | | | |
| Oper. time red. | | 0.98 | | | | 0.98 | | | 0.98 | | | |
| Wind dir. red. | | 0.61 | | | | 0.65 | | | 0.65 | | | |
| Total reduction | | 0.08 | | | | 0.31 | | | 0.35 | | | |
| Total, real | | 58 | | | | 63 | | | 4 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Straumenini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|------------------|----------------|----------------|--|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 33 10:32 (C13) |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 34 10:33 (C13) |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 34 10:32 (C13) |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 34 10:33 (C13) |
| 5 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 35 10:34 (C13) |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 35 10:35 (C13) |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 34 10:34 (C13) |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 34 10:35 (C13) |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 34 10:35 (C13) |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 34 10:36 (C13) |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 (C1) 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 34 10:36 (C13) |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:29 (C1) 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 34 10:37 (C13) |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:27 (C1) 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 34 10:37 (C13) |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:26 (C1) 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:38 35 10:38 (C13) |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:25 (C1) 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 34 10:38 (C13) |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:25 (C1) 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 34 10:38 (C13) |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:24 (C1) 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 34 10:39 (C13) |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:23 (C1) 19:29 | 07:52 18:09 | 07:59 16:02 | 10:05 (C13) 10:16 (C13) 10:04 (C13) 10:20 (C13) 15:38 34 10:40 (C13) |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:23 (C1) 19:26 | 07:55 18:07 | 08:01 16:01 | 10:02 (C13) 10:21 (C13) 10:01 (C13) 10:08 (C13) 15:38 34 10:40 (C13) |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:24 (C1) 19:23 | 07:57 18:04 | 08:03 15:59 | 10:01 (C13) 10:22 (C13) 10:01 (C13) 10:06 (C13) 15:38 34 10:40 (C13) |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:26 (C1) 19:20 | 07:59 18:02 | 08:05 15:58 | 09:59 (C13) 10:24 (C13) 10:00 (C13) 10:07 (C13) 15:39 34 10:41 (C13) |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:28 (C1) 19:18 | 08:01 17:59 | 08:07 15:56 | 10:00 (C13) 10:25 (C13) 10:00 (C13) 10:07 (C13) 15:39 34 10:41 (C13) |
| 23 | 04:59 21:45 | 05:59 20:37 | 06:30 (C1) 19:15 | 08:03 17:57 | 08:09 15:55 | 09:59 (C13) 10:26 (C13) 10:00 (C13) 10:08 (C13) 15:40 34 10:42 (C13) |
| 24 | 05:01 21:43 | 06:01 20:35 | 06:32 (C1) 19:12 | 08:05 17:55 | 08:11 15:53 | 09:58 (C13) 10:27 (C13) 10:00 (C13) 10:08 (C13) 15:41 34 10:42 (C13) |
| 25 | 05:03 21:41 | 06:03 20:32 | 06:34 (C1) 19:10 | 08:13 16:52 | 08:19 15:52 | 09:58 (C13) 10:28 (C13) 10:00 (C13) 10:08 (C13) 15:41 34 10:42 (C13) |
| 26 | 05:04 21:39 | 06:05 20:30 | 06:37 (C1) 19:07 | 08:15 16:50 | 08:21 15:51 | 09:59 (C13) 10:29 (C13) 10:00 (C13) 10:09 (C13) 15:42 34 10:43 (C13) |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 09:58 (C13) 10:30 (C13) 10:00 (C13) 10:09 (C13) 15:43 34 10:43 (C13) |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 09:58 (C13) 10:30 (C13) 10:00 (C13) 10:10 (C13) 15:44 34 10:44 (C13) |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 09:58 (C13) 10:31 (C13) 10:00 (C13) 10:10 (C13) 15:45 34 10:44 (C13) |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 09:58 (C13) 10:32 (C13) 10:00 (C13) 10:11 (C13) 15:46 34 10:45 (C13) |
| 31 | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 34 10:12 (C13) 10:46 (C13) |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 214 | | | 364 | 1056 |
| Sun reduction | | 0.50 | | | 0.08 | 0.07 |
| Oper. time red. | | 0.98 | | | 0.98 | 0.98 |
| Wind dir. red. | | 0.65 | | | 0.61 | 0.61 |
| Total reduction | | 0.31 | | | 0.05 | 0.04 |
| Total, real | | 66 | | | 18 | 43 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Strauti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (57)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June | | |
|---------------------|---------|-------------|-------------|-------------|-------|-------------|-------|------------|-------|------------|------------|-------|
| 1 | 08:51 | 10:16 (C13) | 08:15 | 10:30 (C13) | 07:11 | 06:49 | 05:33 | 06:00 (C1) | 04:36 | | | |
| | 15:48 | 38 | 10:54 (C13) | 16:45 | 30 | 11:00 (C13) | 17:48 | 19:53 | 20:55 | 5 | 06:05 (C1) | 21:53 |
| 2 | 08:50 | 10:16 (C13) | 08:13 | 10:31 (C13) | 07:08 | 06:46 | 05:30 | 05:58 (C1) | 04:35 | | | |
| | 15:49 | 39 | 10:55 (C13) | 16:47 | 27 | 10:58 (C13) | 17:50 | 19:55 | 20:57 | 8 | 06:06 (C1) | 21:54 |
| 3 | 08:50 | 10:16 (C13) | 08:11 | 10:33 (C13) | 07:06 | 06:43 | 05:28 | 05:56 (C1) | 04:34 | | | |
| | 15:51 | 40 | 10:56 (C13) | 16:50 | 24 | 10:57 (C13) | 17:52 | 19:57 | 21:00 | 12 | 06:08 (C1) | 21:55 |
| 4 | 08:50 | 10:16 (C13) | 08:09 | 10:36 (C13) | 07:03 | 06:41 | 05:26 | 05:54 (C1) | 04:33 | | | |
| | 15:52 | 40 | 10:56 (C13) | 16:52 | 19 | 10:55 (C13) | 17:54 | 19:59 | 21:02 | 14 | 06:08 (C1) | 21:57 |
| 5 | 08:49 | 10:17 (C13) | 08:07 | 10:40 (C13) | 07:00 | 06:38 | 05:23 | 05:52 (C1) | 04:32 | | | |
| | 15:53 | 40 | 10:57 (C13) | 16:54 | 12 | 10:52 (C13) | 17:56 | 20:01 | 21:04 | 17 | 06:09 (C1) | 21:58 |
| 6 | 08:49 | 10:17 (C13) | 08:05 | | | 06:58 | 06:35 | 05:21 | 04:31 | | | |
| | 15:55 | 41 | 10:58 (C13) | 16:56 | | 17:58 | 20:03 | 21:06 | 19 | 06:09 (C1) | 21:59 | |
| 7 | 08:48 | 10:17 (C13) | 08:03 | | | 06:55 | 06:33 | 05:19 | 04:30 | | | |
| | 15:56 | 41 | 10:58 (C13) | 16:59 | | 18:00 | 20:05 | 21:08 | 21 | 06:10 (C1) | 22:00 | |
| 8 | 08:48 | 10:17 (C13) | 08:01 | | | 06:53 | 06:30 | 05:17 | 04:29 | | | |
| | 15:58 | 42 | 10:59 (C13) | 17:01 | | 18:03 | 20:08 | 21:10 | 21 | 06:10 (C1) | 22:01 | |
| 9 | 08:47 | 10:18 (C13) | 07:58 | | | 06:50 | 06:28 | 05:15 | 04:28 | | | |
| | 15:59 | 41 | 10:59 (C13) | 17:03 | | 18:05 | 20:10 | 21:12 | 21 | 06:10 (C1) | 22:02 | |
| 10 | 08:46 | 10:18 (C13) | 07:56 | | | 06:47 | 06:25 | 05:13 | 04:28 | | | |
| | 16:01 | 42 | 11:00 (C13) | 17:05 | | 18:07 | 20:12 | 21:14 | 20 | 06:09 (C1) | 22:03 | |
| 11 | 08:45 | 10:18 (C13) | 07:54 | | | 06:45 | 06:22 | 05:11 | 04:27 | | | |
| | 16:03 | 43 | 11:01 (C13) | 17:08 | | 18:09 | 20:14 | 21:16 | 20 | 06:09 (C1) | 22:04 | |
| 12 | 08:44 | 10:19 (C13) | 07:52 | | | 06:42 | 06:20 | 05:08 | 04:27 | | | |
| | 16:04 | 42 | 11:01 (C13) | 17:10 | | 18:11 | 20:16 | 21:18 | 19 | 06:08 (C1) | 22:05 | |
| 13 | 08:43 | 10:18 (C13) | 07:49 | | | 06:40 | 06:17 | 05:06 | 04:26 | | | |
| | 16:06 | 43 | 11:01 (C13) | 17:12 | | 18:13 | 20:18 | 21:20 | 19 | 06:08 (C1) | 22:06 | |
| 14 | 08:42 | 10:19 (C13) | 07:47 | | | 06:37 | 06:14 | 05:04 | 04:26 | | | |
| | 16:08 | 43 | 11:02 (C13) | 17:14 | | 18:15 | 20:20 | 21:22 | 18 | 06:08 (C1) | 22:07 | |
| 15 | 08:41 | 10:19 (C13) | 07:45 | | | 06:34 | 06:12 | 05:03 | 04:26 | | | |
| | 16:10 | 43 | 11:02 (C13) | 17:17 | | 18:18 | 20:22 | 21:24 | 16 | 06:07 (C1) | 22:07 | |
| 16 | 08:40 | 10:19 (C13) | 07:43 | | | 06:32 | 06:09 | 05:01 | 04:25 | | | |
| | 16:12 | 44 | 11:03 (C13) | 17:19 | | 18:20 | 20:24 | 21:25 | 14 | 06:05 (C1) | 22:08 | |
| 17 | 08:39 | 10:20 (C13) | 07:40 | | | 06:29 | 06:07 | 04:59 | 04:25 | | | |
| | 16:14 | 44 | 11:04 (C13) | 17:21 | | 18:22 | 20:26 | 21:27 | 12 | 06:05 (C1) | 22:08 | |
| 18 | 08:37 | 10:20 (C13) | 07:38 | | | 06:26 | 06:04 | 04:57 | 04:25 | | | |
| | 16:16 | 43 | 11:03 (C13) | 17:23 | | 18:24 | 20:28 | 21:29 | 8 | 06:03 (C1) | 22:09 | |
| 19 | 08:36 | 10:20 (C13) | 07:36 | | | 06:24 | 06:02 | 04:55 | 04:25 | | | |
| | 16:18 | 43 | 11:03 (C13) | 17:26 | | 18:26 | 20:30 | 21:31 | 22:09 | | | |
| 20 | 08:35 | 10:21 (C13) | 07:33 | | | 06:21 | 05:59 | 04:53 | 04:25 | | | |
| | 16:20 | 43 | 11:04 (C13) | 17:28 | | 18:28 | 20:33 | 21:33 | 22:10 | | | |
| 21 | 08:33 | 10:21 (C13) | 07:31 | | | 06:18 | 05:57 | 04:52 | 04:25 | | | |
| | 16:22 | 43 | 11:04 (C13) | 17:30 | | 18:30 | 20:35 | 21:35 | 22:10 | | | |
| 22 | 08:32 | 10:22 (C13) | 07:28 | | | 06:16 | 05:54 | 04:50 | 04:25 | | | |
| | 16:24 | 42 | 11:04 (C13) | 17:32 | | 18:32 | 20:37 | 21:37 | 22:10 | | | |
| 23 | 08:30 | 10:22 (C13) | 07:26 | | | 06:13 | 05:52 | 04:48 | 04:26 | | | |
| | 16:26 | 42 | 11:04 (C13) | 17:34 | | 18:34 | 20:39 | 21:38 | 22:10 | | | |
| 24 | 08:29 | 10:23 (C13) | 07:23 | | | 06:10 | 05:49 | 04:47 | 04:26 | | | |
| | 16:28 | 42 | 11:05 (C13) | 17:37 | | 18:36 | 20:41 | 21:40 | 22:10 | | | |
| 25 | 08:27 | 10:24 (C13) | 07:21 | | | 06:07 | 05:47 | 04:45 | 04:26 | | | |
| | 16:30 | 40 | 11:04 (C13) | 17:39 | | 18:38 | 20:43 | 21:42 | 22:10 | | | |
| 26 | 08:26 | 10:24 (C13) | 07:18 | | | 06:05 | 05:44 | 04:44 | 04:27 | | | |
| | 16:32 | 40 | 11:04 (C13) | 17:41 | | 18:41 | 20:45 | 21:43 | 22:10 | | | |
| 27 | 08:24 | 10:25 (C13) | 07:16 | | | 06:02 | 05:42 | 04:42 | 04:27 | | | |
| | 16:34 | 39 | 11:04 (C13) | 17:43 | | 18:43 | 20:47 | 21:45 | 22:10 | | | |
| 28 | 08:22 | 10:26 (C13) | 07:13 | | | 05:59 | 05:40 | 04:41 | 04:28 | | | |
| | 16:36 | 37 | 11:03 (C13) | 17:45 | | 18:45 | 20:49 | 21:47 | 22:10 | | | |
| 29 | 08:20 | 10:27 (C13) | | | | 06:57 | 05:37 | 04:40 | 04:29 | | | |
| | 16:39 | 36 | 11:03 (C13) | | | 19:47 | 20:51 | 21:48 | 22:10 | | | |
| 30 | 08:18 | 10:28 (C13) | | | | 06:54 | 05:35 | 04:38 | 04:29 | | | |
| | 16:41 | 34 | 11:02 (C13) | | | 19:49 | 20:53 | 21:50 | 22:09 | | | |
| 31 | 08:17 | 10:29 (C13) | | | | 06:51 | | 04:37 | | | | |
| | 16:43 | 32 | 11:01 (C13) | | | 19:51 | | 21:51 | | | | |
| Potential sun hours | 235 | | 266 | | | 366 | 426 | 508 | | 529 | | |
| Total, worst case | 1262 | | 112 | | | | | 284 | | | | |
| Sun reduction | 0.13 | | 0.20 | | | | | 0.57 | | | | |
| Oper. time red. | 0.98 | | 0.98 | | | | | 0.98 | | | | |
| Wind dir. red. | 0.61 | | 0.61 | | | | | 0.67 | | | | |
| Total reduction | 0.08 | | 0.12 | | | | | 0.36 | | | | |
| Total, real | 98 | | 13 | | | | | 102 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Strauti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (57)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | October | November | | December | | |
|---------------------|-------|------|------------|--------|------|------------|-----------|-------|---------|----------|-------------|----------|------|-------------|
| 1 | 04:30 | | | 05:16 | | 05:59 (C1) | 06:17 | 07:17 | 07:23 | | | 08:24 | | 10:00 (C13) |
| | 22:09 | | | 21:28 | 20 | 06:19 (C1) | 20:14 | 18:54 | 16:36 | | | 15:45 | 43 | 10:43 (C13) |
| 2 | 04:31 | | | 05:18 | | 05:59 (C1) | 06:19 | 07:19 | 07:25 | | | 08:26 | | 10:01 (C13) |
| | 22:09 | | | 21:26 | 20 | 06:19 (C1) | 20:11 | 18:51 | 16:34 | | | 15:44 | 42 | 10:43 (C13) |
| 3 | 04:32 | | | 05:19 | | 05:59 (C1) | 06:21 | 07:21 | 07:27 | | | 08:28 | | 10:01 (C13) |
| | 22:08 | | | 21:24 | 21 | 06:20 (C1) | 20:09 | 18:48 | 16:32 | | | 15:43 | 41 | 10:42 (C13) |
| 4 | 04:33 | | | 05:21 | | 05:59 (C1) | 06:23 | 07:23 | 07:29 | | | 08:29 | | 10:01 (C13) |
| | 22:07 | | | 21:22 | 21 | 06:20 (C1) | 20:06 | 18:46 | 16:29 | | | 15:42 | 42 | 10:43 (C13) |
| 5 | 04:34 | | | 05:23 | | 05:58 (C1) | 06:25 | 07:25 | 07:31 | | | 08:31 | | 10:02 (C13) |
| | 22:07 | | | 21:20 | 21 | 06:19 (C1) | 20:03 | 18:43 | 16:27 | | | 15:42 | 41 | 10:43 (C13) |
| 6 | 04:35 | | | 05:25 | | 05:58 (C1) | 06:27 | 07:27 | 07:33 | | 10:09 (C13) | 08:32 | | 10:03 (C13) |
| | 22:06 | | | 21:17 | 21 | 06:19 (C1) | 20:01 | 18:40 | 16:25 | 13 | 10:22 (C13) | 15:41 | 41 | 10:44 (C13) |
| 7 | 04:36 | | | 05:27 | | 06:00 (C1) | 06:29 | 07:30 | 07:36 | | 10:05 (C13) | 08:34 | | 10:03 (C13) |
| | 22:05 | | | 21:15 | 19 | 06:19 (C1) | 19:58 | 18:38 | 16:23 | 20 | 10:25 (C13) | 15:40 | 40 | 10:43 (C13) |
| 8 | 04:37 | | | 05:29 | | 06:02 (C1) | 06:31 | 07:32 | 07:38 | | 10:04 (C13) | 08:35 | | 10:04 (C13) |
| | 22:04 | | | 21:13 | 16 | 06:18 (C1) | 19:55 | 18:35 | 16:21 | 24 | 10:28 (C13) | 15:40 | 40 | 10:44 (C13) |
| 9 | 04:38 | | | 05:31 | | 06:04 (C1) | 06:33 | 07:34 | 07:40 | | 10:02 (C13) | 08:37 | | 10:04 (C13) |
| | 22:03 | | | 21:11 | 14 | 06:18 (C1) | 19:53 | 18:32 | 16:19 | 27 | 10:29 (C13) | 15:39 | 40 | 10:44 (C13) |
| 10 | 04:39 | | | 05:33 | | 06:06 (C1) | 06:35 | 07:36 | 07:42 | | 10:01 (C13) | 08:38 | | 10:05 (C13) |
| | 22:02 | | | 21:08 | 11 | 06:17 (C1) | 19:50 | 18:30 | 16:17 | 30 | 10:31 (C13) | 15:39 | 40 | 10:45 (C13) |
| 11 | 04:41 | | | 05:35 | | 06:07 (C1) | 06:37 | 07:38 | 07:44 | | 10:00 (C13) | 08:39 | | 10:06 (C13) |
| | 22:01 | | | 21:06 | 7 | 06:14 (C1) | 19:47 | 18:27 | 16:15 | 32 | 10:32 (C13) | 15:38 | 38 | 10:44 (C13) |
| 12 | 04:42 | | | 05:37 | | 06:09 (C1) | 06:39 | 07:40 | 07:46 | | 09:59 (C13) | 08:40 | | 10:07 (C13) |
| | 22:00 | | | 21:04 | 3 | 06:12 (C1) | 19:45 | 18:25 | 16:13 | 34 | 10:33 (C13) | 15:38 | 38 | 10:45 (C13) |
| 13 | 04:43 | | | 05:39 | | | 06:41 | 07:42 | 07:49 | | 09:59 (C13) | 08:42 | | 10:07 (C13) |
| | 21:59 | | | 21:02 | | | 19:42 | 18:22 | 16:11 | 36 | 10:35 (C13) | 15:38 | 38 | 10:45 (C13) |
| 14 | 04:45 | | | 05:41 | | | 06:43 | 07:44 | 07:51 | | 09:58 (C13) | 08:43 | | 10:08 (C13) |
| | 21:58 | | | 20:59 | | | 19:39 | 18:19 | 16:09 | 37 | 10:35 (C13) | 15:38 | 38 | 10:46 (C13) |
| 15 | 04:46 | | | 05:43 | | | 06:45 | 07:46 | 07:53 | | 09:57 (C13) | 08:44 | | 10:08 (C13) |
| | 21:57 | | | 20:57 | | | 19:37 | 18:17 | 16:08 | 39 | 10:36 (C13) | 15:38 | 38 | 10:46 (C13) |
| 16 | 04:48 | | | 05:45 | | | 06:47 | 07:48 | 07:55 | | 09:57 (C13) | 08:45 | | 10:09 (C13) |
| | 21:55 | | | 20:54 | | | 19:34 | 18:14 | 16:06 | 40 | 10:37 (C13) | 15:38 | 37 | 10:46 (C13) |
| 17 | 04:49 | | | 05:47 | | | 06:49 | 07:50 | 07:57 | | 09:57 (C13) | 08:46 | | 10:10 (C13) |
| | 21:54 | | | 20:52 | | | 19:31 | 18:12 | 16:04 | 40 | 10:37 (C13) | 15:38 | 37 | 10:47 (C13) |
| 18 | 04:51 | | | 05:49 | | | 06:51 | 07:52 | 07:59 | | 09:57 (C13) | 08:46 | | 10:10 (C13) |
| | 21:52 | | | 20:50 | | | 19:29 | 18:09 | 16:02 | 42 | 10:39 (C13) | 15:38 | 37 | 10:47 (C13) |
| 19 | 04:52 | | | 05:51 | | | 06:53 | 07:55 | 08:01 | | 09:57 (C13) | 08:47 | | 10:10 (C13) |
| | 21:51 | | | 20:47 | | | 19:26 | 18:07 | 16:01 | 42 | 10:39 (C13) | 15:38 | 37 | 10:47 (C13) |
| 20 | 04:54 | | | 05:53 | | | 06:55 | 07:57 | 08:03 | | 09:57 (C13) | 08:48 | | 10:11 (C13) |
| | 21:49 | | | 20:45 | | | 19:23 | 18:04 | 15:59 | 42 | 10:39 (C13) | 15:39 | 37 | 10:48 (C13) |
| 21 | 04:56 | | | 05:55 | | | 06:57 | 07:59 | 08:05 | | 09:56 (C13) | 08:48 | | 10:12 (C13) |
| | 21:48 | | | 20:42 | | | 19:20 | 18:02 | 15:58 | 43 | 10:39 (C13) | 15:39 | 36 | 10:48 (C13) |
| 22 | 04:57 | | | 05:57 | | | 06:59 | 08:01 | 08:07 | | 09:57 (C13) | 08:49 | | 10:12 (C13) |
| | 21:46 | | | 20:40 | | | 19:18 | 17:59 | 15:56 | 43 | 10:40 (C13) | 15:39 | 36 | 10:48 (C13) |
| 23 | 04:59 | | | 05:59 | | | 07:01 | 08:03 | 08:09 | | 09:57 (C13) | 08:50 | | 10:13 (C13) |
| | 21:45 | | | 20:37 | | | 19:15 | 17:57 | 15:55 | 43 | 10:40 (C13) | 15:40 | 36 | 10:49 (C13) |
| 24 | 05:01 | | | 06:01 | | | 07:03 | 08:05 | 08:11 | | 09:57 (C13) | 08:50 | | 10:13 (C13) |
| | 21:43 | | | 20:35 | | | 19:12 | 17:55 | 15:53 | 44 | 10:41 (C13) | 15:41 | 37 | 10:50 (C13) |
| 25 | 05:03 | | 06:07 (C1) | 06:03 | | | 07:05 | 07:07 | 08:13 | | 09:57 (C13) | 08:50 | | 10:13 (C13) |
| | 21:41 | 5 | 06:12 (C1) | 20:32 | | | 19:10 | 16:52 | 15:52 | 44 | 10:41 (C13) | 15:41 | 37 | 10:50 (C13) |
| 26 | 05:04 | | 06:04 (C1) | 06:05 | | | 07:07 | 07:10 | 08:15 | | 09:58 (C13) | 08:51 | | 10:14 (C13) |
| | 21:39 | 10 | 06:14 (C1) | 20:30 | | | 19:07 | 16:50 | 15:51 | 43 | 10:41 (C13) | 15:42 | 36 | 10:50 (C13) |
| 27 | 05:06 | | 06:03 (C1) | 06:07 | | | 07:09 | 07:12 | 08:17 | | 09:59 (C13) | 08:51 | | 10:14 (C13) |
| | 21:38 | 13 | 06:16 (C1) | 20:27 | | | 19:04 | 16:47 | 15:49 | 43 | 10:42 (C13) | 15:43 | 37 | 10:51 (C13) |
| 28 | 05:08 | | 06:01 (C1) | 06:09 | | | 07:11 | 07:14 | 08:19 | | 09:59 (C13) | 08:51 | | 10:14 (C13) |
| | 21:36 | 15 | 06:16 (C1) | 20:24 | | | 19:02 | 16:45 | 15:48 | 43 | 10:42 (C13) | 15:44 | 38 | 10:52 (C13) |
| 29 | 05:10 | | 06:01 (C1) | 06:11 | | | 07:13 | 07:16 | 08:21 | | 09:59 (C13) | 08:51 | | 10:15 (C13) |
| | 21:34 | 16 | 06:17 (C1) | 20:22 | | | 18:59 | 16:43 | 15:47 | 43 | 10:42 (C13) | 15:45 | 37 | 10:52 (C13) |
| 30 | 05:12 | | 06:00 (C1) | 06:13 | | | 07:15 | 07:18 | 08:22 | | 10:00 (C13) | 08:51 | | 10:15 (C13) |
| | 21:32 | 18 | 06:18 (C1) | 20:19 | | | 18:56 | 16:40 | 15:46 | 43 | 10:43 (C13) | 15:46 | 38 | 10:53 (C13) |
| 31 | 05:14 | | 06:00 (C1) | 06:15 | | | | 07:20 | | | | 08:51 | | 10:16 (C13) |
| | 21:30 | 19 | 06:19 (C1) | 20:17 | | | | 16:38 | | | | 15:47 | 38 | 10:54 (C13) |
| Potential sun hours | 529 | | | 469 | | | 385 | 324 | 247 | | | 216 | | |
| Total, worst case | | 96 | | | 194 | | | | 930 | | | | 1191 | |
| Sun reduction | | 0.49 | | | 0.50 | | | | 0.08 | | | | 0.07 | |
| Oper. time red. | | 0.98 | | | 0.98 | | | | 0.98 | | | | 0.98 | |
| Wind dir. red. | | 0.67 | | | 0.67 | | | | 0.61 | | | | 0.61 | |
| Total reduction | | 0.31 | | | 0.32 | | | | 0.05 | | | | 0.04 | |
| Total, real | | 30 | | | 61 | | | | 45 | | | | 49 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Strautini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (36)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | | January | February | March | April | May | June | July | August | September | October | November | | December |
|---------------------|----------------------|-------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------------|----------|
| 1 | 08:51 15:48 26 | 09:42 (C13) 10:08 (C13) 16:45 | 08:15 07:11 17:48 | 07:11 06:49 19:53 | 05:33 20:55 17:48 | 04:36 21:53 20:55 | 04:30 22:09 21:28 | 05:16 21:28 20:14 | 06:17 21:28 18:54 | 07:17 21:28 16:36 | 07:23 21:28 15:45 | 08:24 21:28 15:45 | 09:27 (C13) 21:28 09:57 (C13) | |
| 2 | 08:51 15:49 26 | 09:43 (C13) 10:09 (C13) 16:47 | 08:13 07:08 17:50 | 07:08 06:46 19:55 | 05:30 20:58 17:50 | 04:35 21:54 20:58 | 04:31 22:09 21:26 | 05:18 21:26 20:11 | 06:19 21:26 18:51 | 07:19 21:26 16:34 | 07:25 21:26 15:44 | 08:26 21:26 15:44 | 09:27 (C13) 21:26 09:57 (C13) | |
| 3 | 08:50 15:51 27 | 09:43 (C13) 10:10 (C13) 16:50 | 08:11 07:06 17:52 | 07:06 06:43 19:57 | 05:28 21:00 17:52 | 04:34 21:55 21:00 | 04:32 22:08 21:24 | 05:19 22:08 21:24 | 06:21 22:08 20:09 | 07:21 22:08 18:48 | 07:27 22:08 16:32 | 08:28 22:08 15:43 | 09:28 (C13) 22:08 09:57 (C13) | |
| 4 | 08:50 15:52 27 | 09:43 (C13) 10:10 (C13) 16:52 | 08:09 07:03 17:54 | 08:09 07:03 19:59 | 05:26 21:02 17:54 | 04:33 21:57 21:02 | 04:33 22:07 21:22 | 05:21 22:07 21:22 | 06:23 22:07 20:06 | 07:23 22:07 18:46 | 07:29 22:07 16:29 | 08:29 22:07 15:42 | 09:28 (C13) 22:07 09:57 (C13) | |
| 5 | 08:49 15:53 28 | 09:43 (C13) 10:11 (C13) 16:54 | 08:07 07:01 17:56 | 08:07 07:01 19:59 | 05:23 21:04 17:56 | 04:32 21:58 21:04 | 04:34 22:07 21:20 | 05:23 22:07 20:03 | 06:25 22:07 18:43 | 07:25 22:07 16:27 | 07:31 22:07 15:42 | 08:31 22:07 15:42 | 09:29 (C13) 22:07 09:57 (C13) | |
| 6 | 08:49 15:55 29 | 09:43 (C13) 10:12 (C13) 16:56 | 08:05 07:03 17:58 | 08:05 07:03 19:59 | 05:21 21:06 17:58 | 04:31 21:59 21:06 | 04:35 22:06 21:17 | 05:25 22:06 20:01 | 06:27 22:06 18:40 | 07:27 22:06 16:25 | 07:33 22:06 15:41 | 08:32 22:06 15:41 | 09:30 (C13) 22:06 09:58 (C13) | |
| 7 | 08:48 15:56 28 | 09:44 (C13) 10:12 (C13) 16:59 | 08:03 07:05 18:01 | 08:03 07:05 19:59 | 05:19 21:08 18:01 | 04:30 22:00 21:08 | 04:36 22:05 21:15 | 05:27 22:05 20:01 | 06:29 22:05 18:38 | 07:30 22:05 16:23 | 07:36 22:05 15:40 | 08:34 22:05 15:40 | 09:30 (C13) 22:05 09:57 (C13) | |
| 8 | 08:48 15:58 29 | 09:44 (C13) 10:13 (C13) 17:01 | 08:01 07:08 18:03 | 08:01 07:08 19:59 | 05:17 21:10 18:03 | 04:29 22:01 21:10 | 04:37 22:04 21:13 | 05:29 22:04 20:01 | 06:31 22:04 18:35 | 07:32 22:04 16:21 | 07:38 22:04 15:40 | 08:35 22:04 15:40 | 09:31 (C13) 22:04 09:58 (C13) | |
| 9 | 08:47 15:59 29 | 09:44 (C13) 10:13 (C13) 17:03 | 07:58 07:10 18:05 | 07:58 07:10 19:59 | 05:15 21:12 18:05 | 04:28 22:02 21:12 | 04:38 22:03 21:11 | 05:31 22:03 20:01 | 06:33 22:03 18:32 | 07:34 22:03 16:19 | 07:40 22:03 15:39 | 08:37 22:03 15:39 | 09:32 (C13) 22:03 09:59 (C13) | |
| 10 | 08:46 16:01 30 | 09:44 (C13) 10:14 (C13) 17:05 | 07:56 07:12 18:07 | 07:56 07:12 19:59 | 05:13 21:14 18:07 | 04:28 22:03 21:14 | 04:39 22:03 21:11 | 05:33 22:03 20:01 | 06:35 22:03 18:32 | 07:36 22:03 16:17 | 07:42 22:03 15:39 | 08:38 22:03 15:39 | 09:32 (C13) 22:03 09:58 (C13) | |
| 11 | 08:45 16:03 30 | 09:45 (C13) 10:15 (C13) 17:08 | 07:54 07:18 18:09 | 07:54 07:18 19:59 | 05:11 21:16 18:09 | 04:27 22:04 21:16 | 04:41 22:02 21:01 | 05:35 22:02 20:01 | 06:37 22:02 18:30 | 07:38 22:02 16:15 | 07:44 22:02 15:38 | 08:39 22:02 15:38 | 09:32 (C13) 22:02 09:58 (C13) | |
| 12 | 08:44 16:04 30 | 09:45 (C13) 10:15 (C13) 17:10 | 07:52 07:17 18:11 | 07:52 07:17 19:59 | 05:08 21:18 18:11 | 04:27 22:05 21:18 | 04:42 22:02 21:04 | 05:37 22:02 20:01 | 06:39 22:02 18:25 | 07:40 22:02 16:13 | 07:46 22:02 15:38 | 08:40 22:02 15:38 | 09:34 (C13) 22:02 09:59 (C13) | |
| 13 | 08:43 16:06 30 | 09:45 (C13) 10:15 (C13) 17:12 | 07:50 07:17 18:13 | 07:50 07:17 19:59 | 05:06 21:20 18:13 | 04:26 22:06 21:20 | 04:43 22:01 21:02 | 05:39 22:01 20:01 | 06:41 22:01 18:22 | 07:42 22:01 16:11 | 07:49 22:01 15:38 | 08:42 22:01 15:38 | 09:34 (C13) 22:01 09:59 (C13) | |
| 14 | 08:42 16:08 30 | 09:46 (C13) 10:16 (C13) 17:14 | 07:47 07:14 18:15 | 07:47 07:14 19:59 | 05:04 21:22 18:15 | 04:26 22:07 21:22 | 04:45 22:01 21:02 | 05:41 22:01 20:01 | 06:43 22:01 18:20 | 07:44 22:01 16:09 | 07:51 22:01 15:38 | 08:43 22:01 15:38 | 09:34 (C13) 22:01 09:59 (C13) | |
| 15 | 08:41 16:10 31 | 09:46 (C13) 10:17 (C13) 17:17 | 07:45 07:17 18:18 | 07:45 07:17 19:59 | 05:03 21:24 18:18 | 04:26 22:07 21:24 | 04:46 22:01 21:02 | 05:43 22:01 20:01 | 06:45 22:01 18:17 | 07:46 22:01 16:08 | 07:53 22:01 15:38 | 08:44 22:01 15:38 | 09:35 (C13) 22:01 10:00 (C13) | |
| 16 | 08:40 16:12 30 | 09:46 (C13) 10:17 (C13) 17:19 | 07:43 07:19 18:20 | 07:43 07:19 19:59 | 05:01 21:26 18:20 | 04:25 22:07 21:26 | 04:48 22:01 21:02 | 05:45 22:01 20:01 | 06:47 22:01 18:14 | 07:48 22:01 16:06 | 07:55 22:01 15:38 | 08:45 22:01 15:38 | 09:36 (C13) 22:01 10:00 (C13) | |
| 17 | 08:39 16:14 30 | 09:47 (C13) 10:17 (C13) 17:21 | 07:40 07:21 18:22 | 07:40 07:21 19:59 | 05:00 21:27 18:22 | 04:25 22:07 21:27 | 04:49 22:01 21:02 | 05:47 22:01 20:01 | 06:49 22:01 18:12 | 07:50 22:01 16:04 | 07:57 22:01 15:38 | 08:46 22:01 15:38 | 09:36 (C13) 22:01 10:00 (C13) | |
| 18 | 08:38 16:16 30 | 09:47 (C13) 10:17 (C13) 17:23 | 07:38 07:23 18:24 | 07:38 07:23 19:59 | 04:57 21:29 18:24 | 04:25 22:07 21:29 | 04:51 22:01 21:02 | 05:49 22:01 20:01 | 06:51 22:01 18:12 | 07:52 22:01 16:04 | 07:59 22:01 15:38 | 08:46 22:01 15:38 | 09:37 (C13) 22:01 10:00 (C13) | |
| 19 | 08:36 16:18 30 | 09:47 (C13) 10:17 (C13) 17:26 | 07:36 07:26 18:26 | 07:36 07:26 19:59 | 04:55 21:30 18:26 | 04:25 22:07 21:31 | 04:52 22:01 21:02 | 05:51 22:01 20:01 | 06:53 22:01 18:07 | 07:55 22:01 16:01 | 08:01 22:01 15:38 | 08:47 22:01 15:38 | 09:38 (C13) 22:01 10:00 (C13) | |
| 20 | 08:35 16:20 28 | 09:49 (C13) 10:17 (C13) 17:28 | 07:33 07:28 18:28 | 07:33 07:28 19:59 | 04:53 21:33 18:28 | 04:25 22:07 21:33 | 04:54 22:01 21:02 | 05:53 22:01 20:01 | 06:55 22:01 18:04 | 07:57 22:01 15:59 | 08:03 22:01 15:39 | 08:48 22:01 15:39 | 09:38 (C13) 22:01 10:00 (C13) | |
| 21 | 08:33 16:22 28 | 09:49 (C13) 10:17 (C13) 17:30 | 07:31 07:30 18:30 | 07:31 07:30 19:59 | 04:52 21:35 18:30 | 04:25 22:07 21:35 | 04:56 22:01 21:02 | 05:55 22:01 20:01 | 06:57 22:01 18:02 | 07:59 22:01 15:58 | 08:05 22:01 15:39 | 08:49 22:01 15:39 | 09:39 (C13) 22:01 10:00 (C13) | |
| 22 | 08:32 16:24 28 | 09:49 (C13) 10:17 (C13) 17:32 | 07:28 07:32 18:32 | 07:28 07:32 19:59 | 04:50 21:37 18:32 | 04:25 22:07 21:37 | 04:57 22:01 21:02 | 05:57 22:01 20:01 | 06:59 22:01 17:59 | 08:01 22:01 15:56 | 08:07 22:01 15:39 | 08:49 22:01 15:39 | 09:39 (C13) 22:01 10:00 (C13) | |
| 23 | 08:30 16:26 26 | 09:50 (C13) 10:16 (C13) 17:34 | 07:26 07:34 18:34 | 07:26 07:34 19:59 | 04:48 21:38 18:34 | 04:26 22:07 21:38 | 04:59 22:01 21:02 | 05:59 22:01 20:01 | 07:01 22:01 17:57 | 08:03 22:01 15:55 | 08:09 22:01 15:40 | 08:50 22:01 15:40 | 09:40 (C13) 22:01 10:00 (C13) | |
| 24 | 08:29 16:28 25 | 09:52 (C13) 10:17 (C13) 17:37 | 07:23 07:37 18:36 | 07:23 07:37 19:59 | 04:47 21:40 18:36 | 04:26 22:07 21:40 | 05:01 22:01 21:02 | 06:01 22:01 20:01 | 07:03 22:01 17:55 | 08:05 22:01 15:53 | 08:11 22:01 15:41 | 08:51 22:01 15:41 | 09:40 (C13) 22:01 10:00 (C13) | |
| 25 | 08:27 16:30 23 | 09:53 (C13) 10:16 (C13) 17:39 | 07:21 07:39 18:38 | 07:21 07:39 19:59 | 04:45 21:42 18:38 | 04:26 22:07 21:42 | 05:03 22:01 21:02 | 06:03 22:01 20:01 | 07:05 22:01 16:52 | 08:07 22:01 15:52 | 08:13 22:01 15:40 | 08:50 22:01 15:40 | 09:40 (C13) 22:01 10:00 (C13) | |
| 26 | 08:26 16:32 21 | 09:54 (C13) 10:15 (C13) 17:41 | 07:18 07:41 18:41 | 07:18 07:41 19:59 | 04:44 21:43 18:41 | 04:27 22:07 21:43 | 05:04 22:01 21:02 | 06:05 22:01 20:01 | 07:07 22:01 16:50 | 08:09 22:01 15:51 | 08:15 22:01 15:42 | 08:51 22:01 15:42 | 09:40 (C13) 22:01 10:00 (C13) | |
| 27 | 08:24 16:34 19 | 09:55 (C13) 10:14 (C13) 17:43 | 07:16 07:43 18:43 | 07:16 07:43 19:59 | 04:42 21:44 18:43 | 04:27 22:07 21:44 | 05:06 22:01 21:02 | 06:07 22:01 20:01 | 07:09 22:01 16:47 | 08:11 22:01 15:49 | 08:17 22:01 15:43 | 08:51 22:01 15:43 | 09:40 (C13) 22:01 10:00 (C13) | |
| 28 | 08:22 16:36 16 | 09:57 (C13) 10:13 (C13) 17:45 | 07:13 07:45 18:45 | 07:13 07:45 19:59 | 04:41 21:47 18:45 | 04:28 22:07 21:47 | 05:08 22:01 21:02 | 06:09 22:01 20:01 | 07:11 22:01 16:45 | 08:13 22:01 15:48 | 08:19 22:01 15:45 | 08:51 22:01 15:45 | 09:41 (C13) 22:01 10:00 (C13) | |
| 29 | 08:20 16:39 12 | 09:59 (C13) 10:11 (C13) | 07:13 07:45 | 07:13 07:45 19:59 | 04:40 21:47 18:45 | 04:29 22:07 21:47 | 05:10 22:01 21:02 | 06:11 22:01 20:01 | 07:13 22:01 16:43 | 08:15 22:01 15:47 | 08:21 22:01 15:45 | 08:51 22:01 15:45 | 09:41 (C13) 22:01 10:00 (C13) | |
| 30 | 08:19 16:41 11 | 09:59 (C13) | 07:13 07:45 | 07:13 07:45 19:59 | 04:40 21:48 18:45 | 04:29 22:07 21:48 | 05:12 22:01 21:02 | 06:13 22:01 20:01 | 07:15 22:01 16:41 | 08:17 22:01 15:46 | 08:23 22:01 15:45 | 08:51 22:01 15:45 | 09:42 (C13) 22:01 10:00 (C13) | |
| 31 | 08:17 16:43 | 09:59 (C13) | 07:13 07:45 | 07:13 07:45 19:59 | 04:40 21:50 18:45 | 04:29 22:07 21:50 | 05:14 22:01 21:02 | 06:15 22:01 20:01 | 07:17 22:01 16:41 | 08:19 22:01 15:46 | 08:25 22:01 15:45 | 08:51 22:01 15:45 | 09:42 (C13) 22:01 10:00 (C13) | |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 | 790 | |
| Total, worst case | 776 | | | | | | | | | | | | 790 | |
| Sun reduction | 0.13 | | | | | | | | | | | | 0.07 | |
| Oper. time red. | 0.98 | | | | | | | | | | | | 0.98 | |
| Wind dir. red. | 0.61 | | | | | | | | | | | | 0.61 | |
| Total reduction | 0.08 | | | | | | | | | | | | 0.04 | |
| Total, real | 62 | | | | | | | | | | | | 33 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Suš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (10)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------------|-------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|
| 1 | 08:51 15:48 43 | 10:50 (C17) 08:15 07:11 | 08:15 07:11 06:49 | 07:11 06:49 05:32 | 05:32 04:35 04:30 | 04:35 04:30 05:15 | 04:30 05:15 06:17 | 05:15 06:17 07:17 | 06:17 07:17 07:23 | 07:17 07:23 08:24 | 07:23 08:24 10:37 (C17) | 08:24 10:37 (C17) |
| 2 | 08:51 15:49 42 | 10:51 (C17) 08:13 07:08 | 08:13 07:08 06:46 | 07:08 06:46 05:30 | 05:30 04:34 04:30 | 04:34 04:30 05:17 | 04:30 05:17 06:19 | 05:17 06:19 07:19 | 06:19 07:19 07:25 | 07:19 07:25 08:26 | 07:25 08:26 10:38 (C17) | 08:26 10:38 (C17) |
| 3 | 08:50 15:50 42 | 11:33 (C17) 08:11 07:06 | 08:11 07:06 06:43 | 07:06 06:43 05:28 | 05:28 04:33 04:31 | 04:33 04:31 05:19 | 04:31 05:19 06:21 | 05:19 06:21 07:21 | 06:21 07:21 07:27 | 07:21 07:27 08:28 | 07:27 08:28 10:39 (C17) | 08:28 10:39 (C17) |
| 4 | 08:50 15:52 43 | 11:33 (C17) 08:09 07:03 | 08:09 07:03 06:41 | 07:03 06:41 05:25 | 05:25 04:32 04:32 | 04:32 04:32 05:21 | 04:32 05:21 06:23 | 05:21 06:23 07:23 | 06:23 07:23 07:29 | 07:23 07:29 08:29 | 07:29 08:29 10:37 (C17) | 08:29 10:37 (C17) |
| 5 | 08:49 15:53 43 | 11:34 (C17) 08:07 07:00 | 08:07 07:00 06:38 | 07:00 06:38 05:23 | 05:23 04:31 04:31 | 04:31 04:33 05:23 | 04:33 05:23 06:25 | 05:23 06:25 07:25 | 06:25 07:25 07:31 | 07:25 07:31 08:31 | 07:31 08:31 10:38 (C17) | 08:31 10:38 (C17) |
| 6 | 08:49 15:54 43 | 11:35 (C17) 08:05 07:58 | 08:05 07:58 06:58 | 07:58 06:58 05:21 | 05:21 04:30 04:30 | 04:30 04:34 05:25 | 04:34 05:25 06:27 | 05:25 06:27 07:27 | 06:27 07:27 07:33 | 07:27 07:33 08:32 | 07:33 08:32 10:39 (C17) | 08:32 10:39 (C17) |
| 7 | 08:48 15:56 42 | 11:35 (C17) 08:03 07:58 | 08:03 07:58 06:55 | 07:58 06:55 05:19 | 05:19 04:30 04:30 | 04:30 04:35 05:27 | 04:35 05:27 06:29 | 05:27 06:29 07:29 | 06:29 07:29 07:36 | 07:29 07:36 08:34 | 07:36 08:34 10:38 (C17) | 08:34 10:38 (C17) |
| 8 | 08:48 15:58 42 | 11:35 (C17) 08:00 07:58 | 08:00 07:58 06:53 | 07:58 06:53 05:17 | 05:17 04:29 04:29 | 04:29 04:37 05:29 | 04:37 05:29 06:31 | 05:29 06:31 07:31 | 06:31 07:31 07:38 | 07:31 07:38 08:35 | 07:38 08:35 10:39 (C17) | 08:35 10:39 (C17) |
| 9 | 08:47 15:59 42 | 11:36 (C17) 07:58 07:58 | 07:58 07:58 06:50 | 07:58 06:50 05:14 | 05:14 04:28 04:28 | 04:28 04:38 05:31 | 04:38 05:31 06:33 | 05:31 06:33 07:34 | 06:33 07:34 07:40 | 07:34 07:40 08:37 | 07:40 08:37 10:40 (C17) | 08:37 10:40 (C17) |
| 10 | 08:46 16:01 42 | 11:36 (C17) 07:56 07:56 | 07:56 07:56 06:47 | 07:56 06:47 05:12 | 05:12 04:28 04:28 | 04:28 04:39 05:33 | 04:39 05:33 06:35 | 05:33 06:35 07:36 | 06:35 07:36 07:42 | 07:36 07:42 08:38 | 07:42 08:38 10:41 (C17) | 08:38 10:41 (C17) |
| 11 | 08:45 16:02 41 | 11:36 (C17) 07:54 07:54 | 07:54 07:54 06:45 | 07:54 06:45 05:10 | 05:10 04:27 04:27 | 04:27 04:40 05:35 | 04:40 05:35 06:37 | 05:35 06:37 07:38 | 06:37 07:38 07:44 | 07:38 07:44 08:39 | 07:44 08:39 10:40 (C17) | 08:39 10:40 (C17) |
| 12 | 08:44 16:04 41 | 11:36 (C17) 07:52 07:52 | 07:52 07:52 06:42 | 07:52 06:42 05:08 | 05:08 04:26 04:26 | 04:26 04:42 05:37 | 04:42 05:37 06:39 | 05:37 06:39 07:40 | 06:39 07:40 07:46 | 07:40 07:46 08:40 | 07:46 08:40 10:41 (C17) | 08:40 10:41 (C17) |
| 13 | 08:43 16:06 40 | 11:37 (C17) 07:49 07:49 | 07:49 07:49 06:39 | 07:49 06:39 05:06 | 05:06 04:26 04:26 | 04:26 04:43 05:39 | 04:43 05:39 06:41 | 05:39 06:41 07:42 | 06:41 07:42 07:49 | 07:42 07:49 08:42 | 07:49 08:42 10:41 (C17) | 08:42 10:41 (C17) |
| 14 | 08:42 16:08 40 | 11:37 (C17) 07:47 07:47 | 07:47 07:47 06:37 | 07:47 06:37 05:04 | 05:04 04:26 04:26 | 04:26 04:44 05:41 | 04:44 05:41 06:43 | 05:41 06:43 07:44 | 06:43 07:44 07:51 | 07:44 07:51 08:43 | 07:51 08:43 10:42 (C17) | 08:43 10:42 (C17) |
| 15 | 08:41 16:10 39 | 11:37 (C17) 07:45 07:45 | 07:45 07:45 06:34 | 07:45 06:34 05:02 | 05:02 04:25 04:25 | 04:25 04:46 05:43 | 04:46 05:43 06:45 | 05:43 06:45 07:46 | 06:45 07:46 07:53 | 07:46 07:53 08:44 | 07:53 08:44 10:43 (C17) | 08:44 10:43 (C17) |
| 16 | 08:40 16:12 39 | 11:37 (C17) 07:43 07:43 | 07:43 07:43 06:31 | 07:43 06:31 05:00 | 05:00 04:25 04:25 | 04:25 04:47 05:45 | 04:47 05:45 06:47 | 05:45 06:47 07:48 | 06:47 07:48 07:55 | 07:48 07:55 08:45 | 07:55 08:45 10:44 (C17) | 08:45 10:44 (C17) |
| 17 | 08:39 16:13 38 | 11:37 (C17) 07:41 07:41 | 07:41 07:41 06:29 | 07:41 06:29 05:00 | 05:00 04:25 04:25 | 04:25 04:49 05:47 | 04:49 05:47 06:49 | 05:47 06:49 07:50 | 06:49 07:50 07:57 | 07:50 07:57 08:46 | 07:57 08:46 10:43 (C17) | 08:46 10:43 (C17) |
| 18 | 08:37 16:15 36 | 11:37 (C17) 07:38 07:38 | 07:38 07:38 06:26 | 07:38 06:26 05:00 | 05:00 04:27 04:27 | 04:27 04:51 05:49 | 04:51 05:49 06:51 | 05:49 06:51 07:52 | 06:51 07:52 07:59 | 07:52 07:59 08:47 | 07:59 08:47 10:44 (C17) | 08:47 10:44 (C17) |
| 19 | 08:36 16:17 36 | 11:36 (C17) 07:35 07:35 | 07:35 07:35 06:23 | 07:35 06:23 05:00 | 05:00 04:25 04:25 | 04:25 04:52 05:51 | 04:52 05:51 06:53 | 05:51 06:53 07:54 | 06:53 07:54 08:01 | 07:54 08:01 08:47 | 07:54 08:01 08:47 | 08:01 08:47 10:44 (C17) |
| 20 | 08:35 16:19 34 | 11:36 (C17) 07:33 07:33 | 07:33 07:33 06:21 | 07:33 06:21 05:00 | 05:00 04:25 04:25 | 04:25 04:53 05:53 | 04:53 05:53 06:55 | 05:53 06:55 07:57 | 06:55 07:57 08:03 | 07:57 08:03 08:49 | 07:57 08:03 08:49 | 08:03 08:49 10:45 (C17) |
| 21 | 08:33 16:21 32 | 11:36 (C17) 07:31 07:31 | 07:31 07:31 06:18 | 07:31 06:18 05:00 | 05:00 04:25 04:25 | 04:25 04:55 05:55 | 04:55 05:55 06:57 | 05:55 06:57 07:59 | 06:57 07:59 08:05 | 07:59 08:05 08:50 | 07:59 08:05 08:50 | 08:05 08:50 10:46 (C17) |
| 22 | 08:32 16:23 30 | 11:34 (C17) 07:28 07:28 | 07:28 07:28 06:15 | 07:28 06:15 05:00 | 05:00 04:25 04:25 | 04:25 04:57 05:57 | 04:57 05:57 06:59 | 05:57 06:59 07:01 | 06:59 07:01 08:03 | 07:01 08:03 08:50 | 07:01 08:03 08:50 | 08:03 08:50 10:47 (C17) |
| 23 | 08:30 16:26 28 | 11:33 (C17) 07:26 07:26 | 07:26 07:26 06:13 | 07:26 06:13 05:00 | 05:00 04:25 04:25 | 04:25 04:59 05:59 | 04:59 05:59 07:01 | 05:59 07:01 08:03 | 07:01 08:03 08:09 | 08:03 08:09 08:51 | 08:03 08:09 08:51 | 08:09 08:51 10:48 (C17) |
| 24 | 08:29 16:28 26 | 11:33 (C17) 07:23 07:23 | 07:23 07:23 06:10 | 07:23 06:10 05:00 | 05:00 04:25 04:25 | 04:25 05:01 06:01 | 05:01 06:01 07:03 | 06:01 07:03 08:05 | 07:03 08:05 08:11 | 08:05 08:11 08:53 | 08:05 08:11 08:53 | 08:11 08:53 10:49 (C17) |
| 25 | 08:27 16:30 23 | 11:32 (C17) 07:21 07:21 | 07:21 07:21 06:07 | 07:21 06:07 05:00 | 05:00 04:25 04:25 | 04:25 05:02 06:03 | 05:02 06:03 07:05 | 06:03 07:05 08:07 | 07:05 08:07 08:13 | 08:07 08:13 08:55 | 08:07 08:13 08:55 | 08:13 08:55 10:50 (C17) |
| 26 | 08:26 16:32 19 | 11:32 (C17) 07:18 07:18 | 07:18 07:18 06:05 | 07:18 06:05 05:00 | 05:00 04:25 04:25 | 04:25 05:04 06:05 | 05:04 06:05 07:07 | 06:05 07:07 08:09 | 07:07 08:09 08:15 | 08:09 08:15 08:57 | 08:09 08:15 08:57 | 08:15 08:57 10:51 (C17) |
| 27 | 08:24 16:34 13 | 11:31 (C17) 07:16 07:16 | 07:16 07:16 06:02 | 07:16 06:02 05:00 | 05:00 04:25 04:25 | 04:25 05:06 06:07 | 05:06 06:07 07:09 | 06:07 07:09 08:11 | 07:09 08:11 08:17 | 08:11 08:17 08:59 | 08:11 08:17 08:59 | 08:17 08:59 10:52 (C17) |
| 28 | 08:22 16:36 | 11:27 (C17) 07:13 07:13 | 07:13 07:13 05:59 | 07:13 05:59 05:00 | 05:00 04:25 04:25 | 04:25 05:08 06:09 | 05:08 06:09 07:11 | 06:09 07:11 08:13 | 07:11 08:13 08:19 | 08:13 08:19 08:61 | 08:13 08:19 08:61 | 08:19 08:61 10:53 (C17) |
| 29 | 08:20 16:38 | 11:27 (C17) 07:11 07:11 | 07:11 07:11 05:57 | 07:11 05:57 05:00 | 05:00 04:25 04:25 | 04:25 05:10 06:11 | 05:10 06:11 07:13 | 06:11 07:13 08:15 | 07:13 08:15 08:21 | 08:15 08:21 08:63 | 08:15 08:21 08:63 | 08:21 08:63 10:54 (C17) |
| 30 | 08:18 16:41 | 11:27 (C17) 07:09 07:09 | 07:09 07:09 05:55 | 07:09 05:55 05:00 | 05:00 04:25 04:25 | 04:25 05:12 06:13 | 05:12 06:13 07:15 | 06:13 07:15 08:17 | 07:15 08:17 08:23 | 08:17 08:23 08:65 | 08:17 08:23 08:65 | 08:23 08:65 10:55 (C17) |
| 31 | 08:17 16:43 | 11:27 (C17) 07:07 07:07 | 07:07 07:07 05:51 | 07:07 05:51 05:00 | 05:00 04:25 04:25 | 04:25 05:13 06:15 | 05:13 06:15 07:17 | 06:15 07:17 08:19 | 07:17 08:19 08:25 | 08:19 08:25 08:67 | 08:19 08:25 08:67 | 08:25 08:67 10:56 (C17) |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 979 | | | | | | | | | | | 1319 |
| Sun reduction | 0.13 | | | | | | | | | | | 0.07 |
| Oper. time red. | 0.98 | | | | | | | | | | | 0.98 |
| Wind dir. red. | 0.60 | | | | | | | | | | | 0.60 |
| Total reduction | 0.08 | | | | | | | | | | | 0.04 |
| Total, real | 76 | | | | | | | | | | | 54 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Sipolini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (86)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | | January | February | March | April | | May | June | July | August | | September | | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|-------|----------------------------|----------------|----------------|----------------|----------------|-------------------|----------------|-------------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | | | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | | 06:17 20:14 | 06:47 (C14) 17 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | | | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | | 06:19 20:11 | 06:49 (C14) 13 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | | | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | | 06:21 20:09 | 06:51 (C14) 8 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | | | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | | 06:23 20:06 | | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | | | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | | 06:25 20:04 | | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | | | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | | 06:27 20:01 | | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | | | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | | 06:29 19:58 | | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | | | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | | 06:31 19:56 | | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 8 | 06:53 (C14) 07:01 (C14) | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | | 06:33 19:53 | | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 13 | 06:50 (C14) 07:03 (C14) | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | | 06:35 19:50 | | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 17 | 06:48 (C14) 07:05 (C14) | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | | 06:37 19:48 | | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 20 | 06:45 (C14) 07:05 (C14) | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | | 06:39 19:45 | | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 24 | 06:43 (C14) 07:07 (C14) | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | | 06:41 19:42 | | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 24 | 06:42 (C14) 07:06 (C14) | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | | 06:43 19:39 | | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 25 | 06:41 (C14) 07:07 (C14) | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | | 06:45 19:37 | | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 26 | 06:40 (C14) 07:07 (C14) | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | | 06:47 19:34 | | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 26 | 06:40 (C14) 07:07 (C14) | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:53 (C14) 11 | 06:49 19:31 | | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 26 | 06:40 (C14) 07:06 (C14) | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 (C14) 15 | 06:51 19:29 | | 07:52 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 26 | 06:40 (C14) 07:06 (C14) | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:48 (C14) 19 | 06:53 19:26 | | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 25 | 06:41 (C14) 07:06 (C14) | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:47 (C14) 21 | 06:55 19:23 | | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 23 | 06:41 (C14) 07:04 (C14) | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:46 (C14) 23 | 06:57 19:21 | | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 23 | 06:41 (C14) 07:04 (C14) | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:45 (C14) 24 | 06:59 19:18 | | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 21 | 06:41 (C14) 07:02 (C14) | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 06:44 (C14) 26 | 07:01 19:15 | | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 18 | 06:41 (C14) 07:01 (C14) | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 06:44 (C14) 26 | 07:03 19:12 | | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 14 | 06:45 (C14) 06:59 (C14) | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 06:44 (C14) 26 | 07:05 19:10 | | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 10 | 06:47 (C14) 06:57 (C14) | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 06:43 (C14) 27 | 07:07 19:07 | | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | | | 04:42 21:45 | 04:28 22:10 | 05:06 21:38 | 06:07 20:27 | 06:43 (C14) 26 | 07:09 19:04 | | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | | | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 06:42 (C14) 26 | 07:11 19:02 | | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | | | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 06:43 (C14) 24 | 07:13 18:59 | | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | | | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 06:43 (C14) 23 | 07:15 18:56 | | 08:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | 06:45 (C14) 20 | | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | | | 508 | 528 | 529 | 469 | | 385 | | 324 | 247 | 216 |
| Total, worst case | | | | 369 | | | | | | | 337 | | 38 | | | |
| Sun reduction | | | | 0.50 | | | | | | | 0.50 | | 0.43 | | | |
| Oper. time red. | | | | 0.98 | | | | | | | 0.98 | | 0.98 | | | |
| Wind dir. red. | | | | 0.66 | | | | | | | 0.66 | | 0.66 | | | |
| Total reduction | | | | 0.32 | | | | | | | 0.32 | | 0.27 | | | |
| Total, real | | | | 119 | | | | | | | 108 | | 10 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Turaiki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (162)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | May | June |
|---------------------|---------|----|-------------|----------|----|-------------|-------|----|-------------|-------|-------|-------|
| 1 | 08:51 | | 09:46 (C14) | 08:15 | | 09:08 (C15) | 07:11 | | | 06:49 | 05:33 | 04:36 |
| | 15:48 | 28 | 10:14 (C14) | 16:45 | 13 | 09:21 (C15) | 17:48 | | | 19:53 | 20:55 | 21:53 |
| 2 | 08:50 | | 09:46 (C14) | 08:13 | | 09:10 (C15) | 07:08 | | | 06:46 | 05:30 | 04:35 |
| | 15:49 | 30 | 10:16 (C14) | 16:48 | 9 | 09:19 (C15) | 17:50 | | | 19:55 | 20:58 | 21:54 |
| 3 | 08:50 | | 09:46 (C14) | 08:11 | | 09:14 (C15) | 07:06 | | | 06:43 | 05:28 | 04:34 |
| | 15:51 | 30 | 10:16 (C14) | 16:50 | 2 | 09:16 (C15) | 17:52 | | | 19:57 | 21:00 | 21:55 |
| 4 | 08:50 | | 09:46 (C14) | 08:09 | | | 07:03 | | | 06:41 | 05:26 | 04:33 |
| | 15:52 | 30 | 10:16 (C14) | 16:52 | | | 17:54 | | | 19:59 | 21:02 | 21:57 |
| 5 | 08:49 | | 09:47 (C14) | 08:07 | | | 07:01 | | | 06:38 | 05:23 | 04:32 |
| | 15:53 | 30 | 10:17 (C14) | 16:54 | | | 17:56 | | | 20:01 | 21:04 | 21:58 |
| 6 | 08:49 | | 09:48 (C14) | 08:05 | | | 06:58 | | | 06:36 | 05:21 | 04:31 |
| | 15:55 | 29 | 10:17 (C14) | 16:56 | | | 17:58 | | | 20:03 | 21:06 | 21:59 |
| 7 | 08:48 | | 09:48 (C14) | 08:03 | | | 06:55 | | | 06:33 | 05:19 | 04:30 |
| | 15:56 | 30 | 10:18 (C14) | 16:59 | | | 18:01 | | | 20:06 | 21:08 | 22:00 |
| 8 | 08:48 | | 09:48 (C14) | 08:01 | | | 06:53 | | 07:23 (C13) | 06:30 | 05:17 | 04:29 |
| | 15:58 | 30 | 10:18 (C14) | 17:01 | | | 18:03 | 5 | 07:28 (C13) | 20:08 | 21:10 | 22:01 |
| 9 | 08:47 | | 09:48 (C14) | 07:58 | | | 06:50 | | 07:18 (C13) | 06:28 | 05:15 | 04:29 |
| | 16:00 | 31 | 10:19 (C14) | 17:03 | | | 18:05 | 15 | 07:33 (C13) | 20:10 | 21:12 | 22:02 |
| 10 | 08:46 | | 09:49 (C14) | 07:56 | | | 06:47 | | 07:15 (C13) | 06:25 | 05:13 | 04:28 |
| | 16:01 | 30 | 10:19 (C14) | 17:05 | | | 18:07 | 20 | 07:35 (C13) | 20:12 | 21:14 | 22:03 |
| 11 | 08:45 | | 09:49 (C14) | 07:54 | | | 06:45 | | 07:13 (C13) | 06:22 | 05:11 | 04:27 |
| | 16:03 | 31 | 10:20 (C14) | 17:08 | | | 18:09 | 23 | 07:36 (C13) | 20:14 | 21:16 | 22:04 |
| 12 | 08:44 | | 09:50 (C14) | 07:52 | | | 06:42 | | 07:12 (C13) | 06:20 | 05:09 | 04:27 |
| | 16:05 | 30 | 10:20 (C14) | 17:10 | | | 18:11 | 25 | 07:37 (C13) | 20:16 | 21:18 | 22:05 |
| 13 | 08:43 | | 09:50 (C14) | 07:50 | | | 06:40 | | 07:11 (C13) | 06:17 | 05:07 | 04:26 |
| | 16:06 | 30 | 10:20 (C14) | 17:12 | | | 18:13 | 27 | 07:38 (C13) | 20:18 | 21:20 | 22:06 |
| 14 | 08:42 | | 09:51 (C14) | 07:47 | | | 06:37 | | 07:09 (C13) | 06:15 | 05:05 | 04:26 |
| | 16:08 | 30 | 10:21 (C14) | 17:14 | | | 18:15 | 29 | 07:38 (C13) | 20:20 | 21:22 | 22:07 |
| 15 | 08:41 | | 09:52 (C14) | 07:45 | | | 06:34 | | 07:09 (C13) | 06:12 | 05:03 | 04:26 |
| | 16:10 | 29 | 10:21 (C14) | 17:17 | | | 18:18 | 30 | 07:39 (C13) | 20:22 | 21:24 | 22:07 |
| 16 | 08:40 | | 09:15 (C15) | 07:43 | | | 06:32 | | 07:08 (C13) | 06:09 | 05:01 | 04:26 |
| | 16:12 | 30 | 10:21 (C14) | 17:19 | | | 18:20 | 31 | 07:39 (C13) | 20:24 | 21:26 | 22:08 |
| 17 | 08:39 | | 09:14 (C15) | 07:40 | | | 06:29 | | 07:07 (C13) | 06:07 | 04:59 | 04:25 |
| | 16:14 | 32 | 10:21 (C14) | 17:21 | | | 18:22 | 31 | 07:38 (C13) | 20:26 | 21:27 | 22:08 |
| 18 | 08:38 | | 09:12 (C15) | 07:38 | | | 06:26 | | 07:07 (C13) | 06:04 | 04:57 | 04:25 |
| | 16:16 | 35 | 10:21 (C14) | 17:23 | | | 18:24 | 31 | 07:38 (C13) | 20:28 | 21:29 | 22:09 |
| 19 | 08:36 | | 09:10 (C15) | 07:36 | | | 06:24 | | 07:07 (C13) | 06:02 | 04:55 | 04:25 |
| | 16:18 | 37 | 10:21 (C14) | 17:26 | | | 18:26 | 31 | 07:38 (C13) | 20:31 | 21:31 | 22:09 |
| 20 | 08:35 | | 09:09 (C15) | 07:33 | | | 06:21 | | 07:07 (C13) | 05:59 | 04:53 | 04:25 |
| | 16:20 | 38 | 10:21 (C14) | 17:28 | | | 18:28 | 30 | 07:37 (C13) | 20:33 | 21:33 | 22:10 |
| 21 | 08:33 | | 09:07 (C15) | 07:31 | | | 06:18 | | 07:07 (C13) | 05:57 | 04:52 | 04:25 |
| | 16:22 | 39 | 10:20 (C14) | 17:30 | | | 18:30 | 29 | 07:36 (C13) | 20:35 | 21:35 | 22:10 |
| 22 | 08:32 | | 09:05 (C15) | 07:28 | | | 06:16 | | 07:08 (C13) | 05:54 | 04:50 | 04:26 |
| | 16:24 | 41 | 10:20 (C14) | 17:32 | | | 18:32 | 28 | 07:36 (C13) | 20:37 | 21:37 | 22:10 |
| 23 | 08:30 | | 09:03 (C15) | 07:26 | | | 06:13 | | 07:08 (C13) | 05:52 | 04:48 | 04:26 |
| | 16:26 | 41 | 10:19 (C14) | 17:34 | | | 18:34 | 26 | 07:34 (C13) | 20:39 | 21:38 | 22:10 |
| 24 | 08:29 | | 09:03 (C15) | 07:23 | | | 06:10 | | 07:08 (C13) | 05:49 | 04:47 | 04:26 |
| | 16:28 | 41 | 10:19 (C14) | 17:37 | | | 18:36 | 25 | 07:33 (C13) | 20:41 | 21:40 | 22:10 |
| 25 | 08:27 | | 09:03 (C15) | 07:21 | | | 06:08 | | 07:10 (C13) | 05:47 | 04:45 | 04:26 |
| | 16:30 | 38 | 10:18 (C14) | 17:39 | | | 18:38 | 21 | 07:31 (C13) | 20:43 | 21:42 | 22:10 |
| 26 | 08:26 | | 09:04 (C15) | 07:18 | | | 06:05 | | 07:12 (C13) | 05:44 | 04:44 | 04:27 |
| | 16:32 | 33 | 10:16 (C14) | 17:41 | | | 18:41 | 17 | 07:29 (C13) | 20:45 | 21:43 | 22:10 |
| 27 | 08:24 | | 09:04 (C15) | 07:16 | | | 06:02 | | 07:14 (C13) | 05:42 | 04:42 | 04:27 |
| | 16:34 | 27 | 10:13 (C14) | 17:43 | | | 18:43 | 11 | 07:25 (C13) | 20:47 | 21:45 | 22:10 |
| 28 | 08:22 | | 09:04 (C15) | 07:13 | | | 05:59 | | | 05:40 | 04:41 | 04:28 |
| | 16:37 | 20 | 09:24 (C15) | 17:45 | | | 18:45 | | | 20:49 | 21:47 | 22:10 |
| 29 | 08:20 | | 09:05 (C15) | | | | 06:57 | | | 05:37 | 04:40 | 04:29 |
| | 16:39 | 19 | 09:24 (C15) | | | | 19:47 | | | 20:51 | 21:48 | 22:10 |
| 30 | 08:19 | | 09:06 (C15) | | | | 06:54 | | | 05:35 | 04:38 | 04:29 |
| | 16:41 | 17 | 09:23 (C15) | | | | 19:49 | | | 20:53 | 21:50 | 22:09 |
| 31 | 08:17 | | 09:07 (C15) | | | | 06:51 | | | | 04:37 | |
| | 16:43 | 16 | 09:23 (C15) | | | | 19:51 | | | | 21:51 | |
| Potential sun hours | 235 | | | 266 | | | 366 | | | 426 | 508 | 529 |
| Total, worst case | 952 | | | 24 | | | 485 | | | | | |
| Sun reduction | 0.13 | | | 0.20 | | | 0.41 | | | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | 0.98 | | | | | |
| Wind dir. red. | 0.61 | | | 0.59 | | | 0.62 | | | | | |
| Total reduction | 0.08 | | | 0.11 | | | 0.25 | | | | | |
| Total, real | 74 | | | 3 | | | 121 | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Turaiki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (162)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:51 (C13) 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:51 (C13) 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:53 (C13) 16:32 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:54 (C13) 16:29 | 08:29 15:42 |
| 5 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:57 (C13) 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:39 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:11 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:13 17:46 | 08:19 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:15 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:17 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | 396 | 97 | 653 | 881 |
| Sun reduction | | | 0.43 | 0.26 | 0.08 | 0.07 |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | 0.62 | 0.62 | 0.60 | 0.61 |
| Total reduction | | | 0.26 | 0.16 | 0.05 | 0.04 |
| Total, real | | | 102 | 15 | 31 | 37 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Tireli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (99)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|----------------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:08 (C14) 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 05:09 (C14) 22:08 | 05:22 (C14) 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 05:09 (C14) 22:08 | 05:22 (C14) 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 05:08 (C14) 22:07 | 05:10 (C14) 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 05:07 (C14) 22:07 | 05:11 (C14) 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 05:06 (C14) 22:06 | 05:12 (C14) 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 05:06 (C14) 22:05 | 05:13 (C14) 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 05:05 (C14) 22:04 | 05:14 (C14) 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 05:05 (C14) 22:03 | 05:15 (C14) 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 05:04 (C14) 22:02 | 05:16 (C14) 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 05:04 (C14) 22:01 | 05:18 (C14) 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 05:03 (C14) 22:00 | 05:19 (C14) 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 05:03 (C14) 21:59 | 05:19 (C14) 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 05:03 (C14) 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 05:03 (C14) 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 05:03 (C14) 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 05:02 (C14) 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 05:02 (C14) 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 05:03 (C14) 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 05:03 (C14) 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 05:03 (C14) 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 05:03 (C14) 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:03 (C14) 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:04 (C14) 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:04 (C14) 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 (C14) 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:05 (C14) 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:06 (C14) 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:06 (C14) 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:07 (C14) 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | 390 | | | | | | |
| Oper. time red. | | | | | | 0.56 | | | | | | |
| Wind dir. red. | | | | | | 0.98 | | | | | | |
| Total reduction | | | | | | 0.67 | | | | | | |
| Total, real | | | | | | 0.36 | | | | | | |
| | | | | | | 142 | | | | | | |
| | | | | | | | 92 | | | | | |
| | | | | | | | 0.49 | | | | | |
| | | | | | | | 0.98 | | | | | |
| | | | | | | | 0.67 | | | | | |
| | | | | | | | 0.32 | | | | | |
| | | | | | | | 30 | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Tudalinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | February | | March | April | May | | June | |
|---------------------|---------|----|-------------|-------|-------|-------|------------|------------|------------|-------|
| 1 | 08:51 | | 10:57 (C13) | 08:15 | 07:11 | 06:49 | | 05:32 | 06:18 (C1) | 04:36 |
| | 15:48 | 32 | 11:29 (C13) | 16:45 | 17:48 | 19:53 | | 20:55 | 06:36 (C1) | 21:53 |
| 2 | 08:50 | | 10:58 (C13) | 08:13 | 07:08 | 06:46 | | 05:30 | 06:19 (C1) | 04:35 |
| | 15:49 | 31 | 11:29 (C13) | 16:47 | 17:50 | 19:55 | | 20:57 | 06:35 (C1) | 21:54 |
| 3 | 08:50 | | 10:58 (C13) | 08:11 | 07:06 | 06:43 | | 05:28 | 06:21 (C1) | 04:34 |
| | 15:51 | 31 | 11:29 (C13) | 16:50 | 17:52 | 19:57 | | 21:00 | 06:34 (C1) | 21:55 |
| 4 | 08:50 | | 10:59 (C13) | 08:09 | 07:03 | 06:41 | | 05:26 | 06:23 (C1) | 04:33 |
| | 15:52 | 30 | 11:29 (C13) | 16:52 | 17:54 | 19:59 | | 21:02 | 06:31 (C1) | 21:57 |
| 5 | 08:49 | | 11:00 (C13) | 08:07 | 07:00 | 06:38 | | 05:23 | | 04:32 |
| | 15:53 | 30 | 11:30 (C13) | 16:54 | 17:56 | 20:01 | | 21:04 | | 21:58 |
| 6 | 08:49 | | 11:01 (C13) | 08:05 | 06:58 | 06:35 | | 05:21 | | 04:31 |
| | 15:55 | 29 | 11:30 (C13) | 16:56 | 17:58 | 20:03 | | 21:06 | | 21:59 |
| 7 | 08:48 | | 11:01 (C13) | 08:03 | 06:55 | 06:33 | | 05:19 | | 04:30 |
| | 15:56 | 29 | 11:30 (C13) | 16:59 | 18:00 | 20:05 | | 21:08 | | 22:00 |
| 8 | 08:48 | | 11:02 (C13) | 08:01 | 06:53 | 06:30 | | 05:17 | | 04:29 |
| | 15:58 | 28 | 11:30 (C13) | 17:01 | 18:03 | 20:08 | | 21:10 | | 22:01 |
| 9 | 08:47 | | 11:03 (C13) | 07:58 | 06:50 | 06:28 | | 05:15 | | 04:28 |
| | 15:59 | 27 | 11:30 (C13) | 17:03 | 18:05 | 20:10 | | 21:12 | | 22:02 |
| 10 | 08:46 | | 11:04 (C13) | 07:56 | 06:47 | 06:25 | | 05:13 | | 04:28 |
| | 16:01 | 25 | 11:29 (C13) | 17:05 | 18:07 | 20:12 | | 21:14 | | 22:03 |
| 11 | 08:45 | | 11:05 (C13) | 07:54 | 06:45 | 06:22 | | 05:10 | | 04:27 |
| | 16:03 | 24 | 11:29 (C13) | 17:08 | 18:09 | 20:14 | | 21:16 | | 22:04 |
| 12 | 08:44 | | 11:07 (C13) | 07:52 | 06:42 | 06:20 | | 05:08 | | 04:27 |
| | 16:04 | 22 | 11:29 (C13) | 17:10 | 18:11 | 20:16 | | 21:18 | | 22:05 |
| 13 | 08:43 | | 11:07 (C13) | 07:50 | 06:40 | 06:17 | | 05:06 | | 04:26 |
| | 16:06 | 21 | 11:28 (C13) | 17:12 | 18:13 | 20:18 | | 21:20 | | 22:06 |
| 14 | 08:42 | | 11:09 (C13) | 07:47 | 06:37 | 06:14 | | 05:04 | | 04:26 |
| | 16:08 | 18 | 11:27 (C13) | 17:14 | 18:15 | 20:20 | | 21:22 | | 22:07 |
| 15 | 08:41 | | 11:12 (C13) | 07:45 | 06:34 | 06:12 | | 05:02 | | 04:26 |
| | 16:10 | 14 | 11:26 (C13) | 17:17 | 18:18 | 20:22 | | 21:24 | | 22:07 |
| 16 | 08:40 | | 11:14 (C13) | 07:43 | 06:32 | 06:09 | | 05:01 | | 04:25 |
| | 16:12 | 10 | 11:24 (C13) | 17:19 | 18:20 | 20:24 | | 21:25 | | 22:08 |
| 17 | 08:39 | | | 07:40 | 06:29 | 06:07 | | 04:59 | | 04:25 |
| | 16:14 | | | 17:21 | 18:22 | 20:26 | | 21:27 | | 22:08 |
| 18 | 08:37 | | | 07:38 | 06:26 | 06:04 | 06:30 (C1) | 04:57 | | 04:25 |
| | 16:16 | | | 17:23 | 18:24 | 20:28 | 3 | 06:33 (C1) | 21:29 | 22:09 |
| 19 | 08:36 | | | 07:36 | 06:24 | 06:02 | | 06:28 (C1) | 04:55 | 04:25 |
| | 16:18 | | | 17:25 | 18:26 | 20:30 | 8 | 06:36 (C1) | 21:31 | 22:09 |
| 20 | 08:35 | | | 07:33 | 06:21 | 05:59 | | 06:25 (C1) | 04:53 | 04:25 |
| | 16:20 | | | 17:28 | 18:28 | 20:33 | 12 | 06:37 (C1) | 21:33 | 22:10 |
| 21 | 08:33 | | | 07:31 | 06:18 | 05:57 | | 06:23 (C1) | 04:52 | 04:25 |
| | 16:22 | | | 17:30 | 18:30 | 20:35 | 15 | 06:38 (C1) | 21:35 | 22:10 |
| 22 | 08:32 | | | 07:28 | 06:16 | 05:54 | | 06:21 (C1) | 04:50 | 04:25 |
| | 16:24 | | | 17:32 | 18:32 | 20:37 | 18 | 06:39 (C1) | 21:37 | 22:10 |
| 23 | 08:30 | | | 07:26 | 06:13 | 05:52 | | 06:18 (C1) | 04:48 | 04:26 |
| | 16:26 | | | 17:34 | 18:34 | 20:39 | 21 | 06:39 (C1) | 21:38 | 22:10 |
| 24 | 08:29 | | | 07:23 | 06:10 | 05:49 | | 06:18 (C1) | 04:47 | 04:26 |
| | 16:28 | | | 17:37 | 18:36 | 20:41 | 22 | 06:40 (C1) | 21:40 | 22:10 |
| 25 | 08:27 | | | 07:21 | 06:07 | 05:47 | | 06:17 (C1) | 04:45 | 04:26 |
| | 16:30 | | | 17:39 | 18:38 | 20:43 | 23 | 06:40 (C1) | 21:42 | 22:10 |
| 26 | 08:26 | | | 07:18 | 06:05 | 05:44 | | 06:17 (C1) | 04:44 | 04:27 |
| | 16:32 | | | 17:41 | 18:41 | 20:45 | 22 | 06:39 (C1) | 21:43 | 22:10 |
| 27 | 08:24 | | | 07:16 | 06:02 | 05:42 | | 06:17 (C1) | 04:42 | 04:27 |
| | 16:34 | | | 17:43 | 18:43 | 20:47 | 22 | 06:39 (C1) | 21:45 | 22:10 |
| 28 | 08:22 | | | 07:13 | 05:59 | 05:40 | | 06:17 (C1) | 04:41 | 04:28 |
| | 16:36 | | | 17:45 | 18:45 | 20:49 | 22 | 06:39 (C1) | 21:47 | 22:10 |
| 29 | 08:20 | | | | 06:57 | 05:37 | | 06:18 (C1) | 04:39 | 04:28 |
| | 16:39 | | | | 19:47 | 20:51 | 21 | 06:39 (C1) | 21:48 | 22:10 |
| 30 | 08:18 | | | | 06:54 | 05:35 | | 06:17 (C1) | 04:38 | 04:29 |
| | 16:41 | | | | 19:49 | 20:53 | 20 | 06:37 (C1) | 21:50 | 22:09 |
| 31 | 08:17 | | | | 06:51 | | | | 04:37 | |
| | 16:43 | | | | 19:51 | | | | 21:51 | |
| Potential sun hours | 235 | | 266 | 366 | 426 | | 508 | | 529 | |
| Total, worst case | 401 | | | | 229 | | 55 | | | |
| Sun reduction | 0.13 | | | | 0.50 | | 0.57 | | | |
| Oper. time red. | 0.98 | | | | 0.98 | | 0.98 | | | |
| Wind dir. red. | 0.60 | | | | 0.65 | | 0.65 | | | |
| Total reduction | 0.08 | | | | 0.31 | | 0.35 | | | |
| Total, real | 30 | | | | 71 | | 19 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Tadalinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|---------------------|----------------|-------------------------|-------------------------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 23 11:11 (C13) |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 26 11:13 (C13) |
| 3 | 04:32 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 27 11:13 (C13) |
| 4 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 28 11:14 (C13) |
| 5 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 28 11:15 (C13) |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 29 11:16 (C13) |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 30 11:16 (C13) |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 (C1) 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 30 11:17 (C13) |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:31 (C1) 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 31 11:17 (C13) |
| 10 | 04:39 22:02 | 05:33 21:08 | 06:30 (C1) 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 32 11:19 (C13) |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:27 (C1) 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 32 11:19 (C13) |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:26 (C1) 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 32 11:20 (C13) |
| 13 | 04:43 21:59 | 05:39 21:02 | 06:26 (C1) 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 32 11:20 (C13) |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:25 (C1) 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:38 33 11:21 (C13) |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:25 (C1) 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 32 11:21 (C13) |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:24 (C1) 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 33 11:22 (C13) |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:24 (C1) 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 34 11:23 (C13) |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:23 (C1) 19:29 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 33 11:23 (C13) |
| 19 | 04:52 21:51 | 05:51 20:47 | 06:23 (C1) 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 33 11:24 (C13) |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:24 (C1) 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 34 11:24 (C13) |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:26 (C1) 19:20 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 34 11:25 (C13) |
| 22 | 04:57 21:46 | 05:57 20:40 | 06:28 (C1) 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 34 11:25 (C13) |
| 23 | 04:59 21:45 | 05:59 20:37 | 06:30 (C1) 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 34 11:26 (C13) |
| 24 | 05:01 21:43 | 06:01 20:35 | 06:32 (C1) 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 33 11:26 (C13) |
| 25 | 05:03 21:41 | 06:03 20:32 | 06:34 (C1) 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 33 11:26 (C13) |
| 26 | 05:04 21:39 | 06:05 20:30 | 07:07 19:07 | 08:15 16:50 | 10:53 (C13) 15:51 10 | 08:51 15:42 33 11:26 (C13) |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:17 16:47 | 10:51 (C13) 15:49 14 | 08:51 15:43 33 11:27 (C13) |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:19 16:45 | 10:50 (C13) 15:48 17 | 08:51 15:44 33 11:27 (C13) |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:21 16:43 | 10:49 (C13) 15:47 20 | 08:51 15:45 33 11:28 (C13) |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:22 16:40 | 10:48 (C13) 15:46 22 | 08:51 15:46 32 11:28 (C13) |
| 31 | 05:14 21:30 | 06:15 20:17 | 07:20 16:38 | 08:25 15:46 | 11:10 (C13) 15:47 32 | 08:51 15:47 32 11:29 (C13) |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 295 | | | 83 | 976 |
| Sun reduction | | 0.50 | | | 0.08 | 0.07 |
| Oper. time red. | | 0.98 | | | 0.98 | 0.98 |
| Wind dir. red. | | 0.65 | | | 0.60 | 0.60 |
| Total reduction | | 0.31 | | | 0.05 | 0.04 |
| Total, real | | 91 | | | 4 | 39 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Tujas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (89)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upenes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (80)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56760080007) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (25)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:47 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:22 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:20 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:37 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 06:24 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:36 | 07:46 18:16 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:28 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:03 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:24 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:54 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:20 18:28 | 05:59 20:32 | 04:53 21:33 | 04:24 22:10 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:24 16:34 | 07:15 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:21 | 07:13 18:59 | 07:16 16:42 | 08:20 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | 05:34 20:53 | 04:38 21:49 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56960040385) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (66)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|-------|-------------|-------------|-------------|-------|-------------|-------|------------|------------|------------|------------|-------|--|--|------|--|--|
| 1 | 08:51 | 10:14 (C13) | 08:15 | 10:27 (C13) | 07:11 | 06:49 | 05:33 | 06:00 (C1) | 04:36 | | | | | | | | |
| | 15:48 | 37 | 10:51 (C13) | 16:45 | 31 | 10:58 (C13) | 17:48 | 19:53 | 20:55 | 5 | 06:05 (C1) | 21:53 | | | | | |
| 2 | 08:50 | 10:14 (C13) | 08:13 | 10:29 (C13) | 07:08 | 06:46 | 05:30 | 05:58 (C1) | 04:35 | | | | | | | | |
| | 15:49 | 39 | 10:53 (C13) | 16:47 | 27 | 10:56 (C13) | 17:50 | 19:55 | 20:57 | 9 | 06:07 (C1) | 21:54 | | | | | |
| 3 | 08:50 | 10:14 (C13) | 08:11 | 10:30 (C13) | 07:06 | 06:43 | 05:28 | 05:56 (C1) | 04:34 | | | | | | | | |
| | 15:51 | 39 | 10:53 (C13) | 16:50 | 25 | 10:55 (C13) | 17:52 | 19:57 | 21:00 | 12 | 06:08 (C1) | 21:55 | | | | | |
| 4 | 08:50 | 10:14 (C13) | 08:09 | 10:33 (C13) | 07:03 | 06:41 | 05:26 | 05:54 (C1) | 04:33 | | | | | | | | |
| | 15:52 | 39 | 10:53 (C13) | 16:52 | 20 | 10:53 (C13) | 17:54 | 19:59 | 21:02 | 15 | 06:09 (C1) | 21:57 | | | | | |
| 5 | 08:49 | 10:15 (C13) | 08:07 | 10:36 (C13) | 07:00 | 06:38 | 05:23 | 05:52 (C1) | 04:32 | | | | | | | | |
| | 15:53 | 39 | 10:54 (C13) | 16:54 | 15 | 10:51 (C13) | 17:56 | 20:01 | 21:04 | 17 | 06:09 (C1) | 21:58 | | | | | |
| 6 | 08:49 | 10:15 (C13) | 08:05 | | | 06:58 | 06:35 | 05:21 | 05:50 (C1) | 04:31 | | | | | | | |
| | 15:55 | 40 | 10:55 (C13) | 16:56 | | 17:58 | 20:03 | 21:06 | 20 | 06:10 (C1) | 21:59 | | | | | | |
| 7 | 08:48 | 10:15 (C13) | 08:03 | | | 06:55 | 06:33 | 05:19 | 05:49 (C1) | 04:30 | | | | | | | |
| | 15:56 | 40 | 10:55 (C13) | 16:59 | | 18:00 | 20:05 | 21:08 | 21 | 06:10 (C1) | 22:00 | | | | | | |
| 8 | 08:48 | 10:15 (C13) | 08:01 | | | 06:53 | 06:30 | 05:17 | 05:49 (C1) | 04:29 | | | | | | | |
| | 15:58 | 41 | 10:56 (C13) | 17:01 | | 18:03 | 20:08 | 21:10 | 21 | 06:10 (C1) | 22:01 | | | | | | |
| 9 | 08:47 | 10:15 (C13) | 07:58 | | | 06:50 | 06:28 | 05:15 | 05:49 (C1) | 04:28 | | | | | | | |
| | 15:59 | 42 | 10:57 (C13) | 17:03 | | 18:05 | 20:10 | 21:12 | 21 | 06:10 (C1) | 22:02 | | | | | | |
| 10 | 08:46 | 10:16 (C13) | 07:56 | | | 06:47 | 06:25 | 05:13 | 05:49 (C1) | 04:28 | | | | | | | |
| | 16:01 | 41 | 10:57 (C13) | 17:05 | | 18:07 | 20:12 | 21:14 | 21 | 06:10 (C1) | 22:03 | | | | | | |
| 11 | 08:45 | 10:16 (C13) | 07:54 | | | 06:45 | 06:22 | 05:11 | 05:49 (C1) | 04:27 | | | | | | | |
| | 16:03 | 42 | 10:58 (C13) | 17:08 | | 18:09 | 20:14 | 21:16 | 20 | 06:09 (C1) | 22:04 | | | | | | |
| 12 | 08:44 | 10:17 (C13) | 07:52 | | | 06:42 | 06:20 | 05:08 | 05:49 (C1) | 04:27 | | | | | | | |
| | 16:04 | 42 | 10:59 (C13) | 17:10 | | 18:11 | 20:16 | 21:18 | 19 | 06:08 (C1) | 22:05 | | | | | | |
| 13 | 08:43 | 10:16 (C13) | 07:49 | | | 06:40 | 06:17 | 05:06 | 05:50 (C1) | 04:26 | | | | | | | |
| | 16:06 | 43 | 10:59 (C13) | 17:12 | | 18:13 | 20:18 | 21:20 | 18 | 06:08 (C1) | 22:06 | | | | | | |
| 14 | 08:42 | 10:17 (C13) | 07:47 | | | 06:37 | 06:14 | 05:04 | 05:51 (C1) | 04:26 | | | | | | | |
| | 16:08 | 42 | 10:59 (C13) | 17:14 | | 18:15 | 20:20 | 21:22 | 17 | 06:08 (C1) | 22:07 | | | | | | |
| 15 | 08:41 | 10:16 (C13) | 07:45 | | | 06:34 | 06:12 | 05:03 | 05:52 (C1) | 04:26 | | | | | | | |
| | 16:10 | 43 | 10:59 (C13) | 17:17 | | 18:18 | 20:22 | 21:24 | 15 | 06:07 (C1) | 22:07 | | | | | | |
| 16 | 08:40 | 10:17 (C13) | 07:43 | | | 06:32 | 06:09 | 05:01 | 05:52 (C1) | 04:25 | | | | | | | |
| | 16:12 | 43 | 11:00 (C13) | 17:19 | | 18:20 | 20:24 | 21:25 | 13 | 06:05 (C1) | 22:08 | | | | | | |
| 17 | 08:39 | 10:18 (C13) | 07:40 | | | 06:29 | 06:07 | 04:59 | 05:54 (C1) | 04:25 | | | | | | | |
| | 16:14 | 43 | 11:01 (C13) | 17:21 | | 18:22 | 20:26 | 21:27 | 11 | 06:05 (C1) | 22:08 | | | | | | |
| 18 | 08:37 | 10:18 (C13) | 07:38 | | | 06:26 | 06:04 | 04:57 | 05:56 (C1) | 04:25 | | | | | | | |
| | 16:16 | 43 | 11:01 (C13) | 17:23 | | 18:24 | 20:28 | 21:29 | 6 | 06:02 (C1) | 22:09 | | | | | | |
| 19 | 08:36 | 10:18 (C13) | 07:36 | | | 06:24 | 06:02 | 04:55 | | 04:25 | | | | | | | |
| | 16:18 | 43 | 11:01 (C13) | 17:26 | | 18:26 | 20:30 | 21:31 | | 22:09 | | | | | | | |
| 20 | 08:35 | 10:19 (C13) | 07:33 | | | 06:21 | 05:59 | 04:53 | | 04:25 | | | | | | | |
| | 16:20 | 43 | 11:02 (C13) | 17:28 | | 18:28 | 20:33 | 21:33 | | 22:10 | | | | | | | |
| 21 | 08:33 | 10:19 (C13) | 07:31 | | | 06:18 | 05:57 | 04:52 | | 04:25 | | | | | | | |
| | 16:22 | 43 | 11:02 (C13) | 17:30 | | 18:30 | 20:35 | 21:35 | | 22:10 | | | | | | | |
| 22 | 08:32 | 10:19 (C13) | 07:28 | | | 06:16 | 05:54 | 04:50 | | 04:25 | | | | | | | |
| | 16:24 | 43 | 11:02 (C13) | 17:32 | | 18:32 | 20:37 | 21:37 | | 22:10 | | | | | | | |
| 23 | 08:30 | 10:20 (C13) | 07:26 | | | 06:13 | 05:52 | 04:48 | | 04:26 | | | | | | | |
| | 16:26 | 41 | 11:01 (C13) | 17:34 | | 18:34 | 20:39 | 21:38 | | 22:10 | | | | | | | |
| 24 | 08:29 | 10:21 (C13) | 07:23 | | | 06:10 | 05:49 | 04:47 | | 04:26 | | | | | | | |
| | 16:28 | 41 | 11:02 (C13) | 17:37 | | 18:36 | 20:41 | 21:40 | | 22:10 | | | | | | | |
| 25 | 08:27 | 10:21 (C13) | 07:21 | | | 06:07 | 05:47 | 04:45 | | 04:26 | | | | | | | |
| | 16:30 | 41 | 11:02 (C13) | 17:39 | | 18:38 | 20:43 | 21:42 | | 22:10 | | | | | | | |
| 26 | 08:26 | 10:22 (C13) | 07:18 | | | 06:05 | 05:44 | 04:44 | | 04:27 | | | | | | | |
| | 16:32 | 40 | 11:02 (C13) | 17:41 | | 18:41 | 20:45 | 21:43 | | 22:10 | | | | | | | |
| 27 | 08:24 | 10:23 (C13) | 07:16 | | | 06:02 | 05:42 | 04:42 | | 04:27 | | | | | | | |
| | 16:34 | 38 | 11:01 (C13) | 17:43 | | 18:43 | 20:47 | 21:45 | | 22:10 | | | | | | | |
| 28 | 08:22 | 10:23 (C13) | 07:13 | | | 05:59 | 05:40 | 04:41 | | 04:28 | | | | | | | |
| | 16:36 | 38 | 11:01 (C13) | 17:45 | | 18:45 | 20:49 | 21:47 | | 22:10 | | | | | | | |
| 29 | 08:20 | 10:24 (C13) | | | | 06:57 | 05:37 | 04:40 | | 04:29 | | | | | | | |
| | 16:39 | 37 | 11:01 (C13) | | | 19:47 | 20:51 | 21:48 | | 22:10 | | | | | | | |
| 30 | 08:18 | 10:25 (C13) | | | | 06:54 | 05:35 | 04:38 | | 04:29 | | | | | | | |
| | 16:41 | 35 | 11:00 (C13) | | | 19:49 | 20:53 | 21:50 | | 22:09 | | | | | | | |
| 31 | 08:17 | 10:27 (C13) | | | | 06:51 | | 04:37 | | | | | | | | | |
| | 16:43 | 32 | 10:59 (C13) | | | 19:51 | | 21:51 | | | | | | | | | |
| Potential sun hours | 235 | | 266 | | | 366 | | 426 | | 508 | | 529 | | | | | |
| Total, worst case | 1253 | | 118 | | | | | 1 | | 281 | | | | | | | |
| Sun reduction | 0.13 | | 0.20 | | | | | 0.50 | | 0.57 | | | | | | | |
| Oper. time red. | 0.98 | | 0.98 | | | | | 0.98 | | 0.98 | | | | | | | |
| Wind dir. red. | 0.61 | | 0.61 | | | | | 0.67 | | 0.67 | | | | | | | |
| Total reduction | 0.08 | | 0.12 | | | | | 0.32 | | 0.36 | | | | | | | |
| Total, real | 97 | | 14 | | | | | 0 | | 101 | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56960040385) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (66)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|------------|------------|------------|----------|----------|
| 1 | 04:30 | 05:16 | 05:59 (C1) | 06:17 | 07:17 | 07:23 |
| | 22:09 | 21:28 | 20 | 06:19 (C1) | 20:14 | 18:54 |
| 2 | 04:31 | 05:18 | 05:59 (C1) | 06:19 | 07:19 | 07:25 |
| | 22:09 | 21:26 | 20 | 06:19 (C1) | 20:11 | 18:51 |
| 3 | 04:32 | 05:19 | 05:59 (C1) | 06:21 | 07:21 | 07:27 |
| | 22:08 | 21:24 | 21 | 06:20 (C1) | 20:09 | 18:48 |
| 4 | 04:33 | 05:21 | 05:59 (C1) | 06:23 | 07:23 | 07:29 |
| | 22:07 | 21:22 | 21 | 06:20 (C1) | 20:06 | 18:46 |
| 5 | 04:34 | 05:23 | 05:58 (C1) | 06:25 | 07:25 | 07:31 |
| | 22:07 | 21:20 | 21 | 06:19 (C1) | 20:03 | 18:43 |
| 6 | 04:35 | 05:25 | 05:59 (C1) | 06:27 | 07:27 | 07:33 |
| | 22:06 | 21:17 | 20 | 06:19 (C1) | 20:01 | 18:40 |
| 7 | 04:36 | 05:27 | 06:00 (C1) | 06:29 | 07:30 | 07:36 |
| | 22:05 | 21:15 | 19 | 06:19 (C1) | 19:58 | 18:38 |
| 8 | 04:37 | 05:29 | 06:02 (C1) | 06:31 | 07:32 | 07:38 |
| | 22:04 | 21:13 | 17 | 06:19 (C1) | 19:55 | 18:35 |
| 9 | 04:38 | 05:31 | 06:04 (C1) | 06:33 | 07:34 | 07:40 |
| | 22:03 | 21:11 | 14 | 06:18 (C1) | 19:53 | 18:32 |
| 10 | 04:39 | 05:33 | 06:06 (C1) | 06:35 | 07:36 | 07:42 |
| | 22:02 | 21:08 | 11 | 06:17 (C1) | 19:50 | 18:30 |
| 11 | 04:41 | 05:35 | 06:07 (C1) | 06:37 | 07:38 | 07:44 |
| | 22:01 | 21:06 | 8 | 06:15 (C1) | 19:47 | 18:27 |
| 12 | 04:42 | 05:37 | 06:09 (C1) | 06:39 | 07:40 | 07:46 |
| | 22:00 | 21:04 | 4 | 06:13 (C1) | 19:45 | 18:25 |
| 13 | 04:43 | 05:39 | 06:11 | 06:41 | 07:42 | 07:49 |
| | 21:59 | 21:02 | | 19:42 | 18:22 | 16:11 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 07:51 | 07:57 |
| | 21:58 | 20:59 | 19:39 | 18:19 | 16:09 | 13:38 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 07:53 | 07:59 |
| | 21:57 | 20:57 | 19:37 | 18:17 | 16:08 | 13:37 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 07:55 | 07:55 |
| | 21:55 | 20:54 | 19:34 | 18:14 | 16:06 | 13:36 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | 07:57 | 07:57 |
| | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 13:34 |
| 18 | 04:51 | 05:49 | 06:51 | 07:52 | 07:59 | 07:59 |
| | 21:52 | 20:50 | 19:29 | 18:09 | 16:02 | 13:32 |
| 19 | 04:52 | 05:51 | 06:53 | 07:55 | 08:01 | 08:01 |
| | 21:51 | 20:47 | 19:26 | 18:07 | 16:01 | 13:31 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | 08:03 | 08:03 |
| | 21:49 | 20:45 | 19:23 | 18:04 | 15:59 | 13:29 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | 08:05 | 08:05 |
| | 21:48 | 20:42 | 19:20 | 18:02 | 15:58 | 13:28 |
| 22 | 04:57 | 05:57 | 06:59 | 08:01 | 08:07 | 08:07 |
| | 21:46 | 20:40 | 19:18 | 17:59 | 15:56 | 13:27 |
| 23 | 04:59 | 05:59 | 07:01 | 08:03 | 08:09 | 08:09 |
| | 21:45 | 20:37 | 19:15 | 17:57 | 15:55 | 13:26 |
| 24 | 05:01 | 06:01 | 07:03 | 08:05 | 08:11 | 08:11 |
| | 21:43 | 20:35 | 19:12 | 17:55 | 15:53 | 13:24 |
| 25 | 05:03 | 06:03 | 07:05 | 08:07 | 08:13 | 08:13 |
| | 21:41 | 20:32 | 19:10 | 17:52 | 15:52 | 13:23 |
| 26 | 05:04 | 06:05 (C1) | 07:07 | 08:09 | 08:15 | 08:15 |
| | 21:39 | 8 | 19:07 | 16:50 | 15:51 | 13:22 |
| 27 | 05:06 | 06:04 (C1) | 07:09 | 08:11 | 08:17 | 08:17 |
| | 21:38 | 12 | 19:04 | 16:47 | 15:49 | 13:21 |
| 28 | 05:08 | 06:02 (C1) | 07:11 | 08:13 | 08:19 | 08:19 |
| | 21:36 | 14 | 19:02 | 16:45 | 15:48 | 13:20 |
| 29 | 05:10 | 06:01 (C1) | 07:13 | 08:15 | 08:21 | 08:21 |
| | 21:34 | 16 | 18:59 | 16:43 | 15:47 | 13:19 |
| 30 | 05:12 | 06:01 (C1) | 07:15 | 08:17 | 08:23 | 08:23 |
| | 21:32 | 17 | 18:56 | 16:40 | 15:46 | 13:18 |
| 31 | 05:14 | 06:01 (C1) | 07:17 | 08:19 | 08:25 | 08:25 |
| | 21:30 | 18 | 18:54 | 16:38 | 15:44 | 13:17 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 85 | 196 | | | 942 | 1167 |
| Sun reduction | 0.49 | 0.50 | | | 0.08 | 0.07 |
| Oper. time red. | 0.98 | 0.98 | | | 0.98 | 0.98 |
| Wind dir. red. | 0.67 | 0.67 | | | 0.61 | 0.61 |
| Total reduction | 0.31 | 0.32 | | | 0.05 | 0.04 |
| Total, real | 27 | 62 | | | 45 | 48 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upmalas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (215)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:04 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:58 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:51 | 06:49 19:31 | 07:50 18:12 | 07:56 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:42 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (146)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| January | | February | | March | | April | | May | | June | |
|---------------------|---------------------|----------------------------|----------------------|---|-------------------------|---|-------------------------|--------------------------|-------------------------|------------|-------------------------|
| 1 | 08:51 15:48 5 | 13:54 (C15) 13:59 (C15) | 08:15 16:45 16 | 15:31 (C14) 15:47 (C14) 15:33 (C14) | 07:11 17:47 07:08 | 16:11 (C13) 16:49 (C13) 16:11 (C13) | 06:49 19:53 06:46 | 07:37 (C8) 07:44 (C8) | 05:32 20:55 05:30 | | 04:36 21:52 04:35 |
| 2 | 08:50 15:49 | | 08:13 16:47 13 | 15:35 (C14) 15:46 (C14) 15:35 (C14) | 07:06 17:50 07:06 | 16:12 (C13) 16:48 (C13) 16:12 (C13) | 06:43 19:55 06:43 | | 05:28 20:57 05:28 | | 04:34 21:54 04:34 |
| 3 | 08:50 15:51 | | 08:11 16:50 10 | 15:35 (C14) 15:45 (C14) | 07:06 17:52 | 16:12 (C13) 16:48 (C13) | 06:41 19:57 | | 05:26 20:59 | | 04:33 21:55 04:33 |
| 4 | 08:50 15:52 | | 08:09 16:52 | | 07:03 17:54 | 16:12 (C13) 16:47 (C13) | 06:41 19:59 | | 05:26 21:01 | | 04:33 21:56 04:33 |
| 5 | 08:49 15:53 | | 08:07 16:54 | | 07:00 17:56 | 16:12 (C13) 16:46 (C13) | 06:38 20:01 | | 05:23 21:04 | | 04:32 21:58 04:32 |
| 6 | 08:49 15:55 | | 08:05 16:56 | | 06:58 17:58 | 16:13 (C13) 16:46 (C13) | 06:35 20:03 | | 05:21 21:06 | | 04:31 21:59 04:31 |
| 7 | 08:48 15:56 | | 08:03 16:59 | | 06:55 18:00 | 16:13 (C13) 16:45 (C13) | 06:33 20:05 | | 05:19 21:08 | 05:50 (C4) | 04:30 22:00 |
| 8 | 08:47 15:58 | | 08:00 17:01 | | 06:53 18:03 | 16:14 (C13) 16:43 (C13) | 06:30 20:07 | | 05:17 21:10 | 05:46 (C4) | 04:29 22:01 |
| 9 | 08:47 15:59 | | 07:58 17:03 | | 06:50 18:05 | 16:16 (C13) 16:42 (C13) | 06:27 20:10 | | 05:15 21:12 | 05:44 (C4) | 04:28 22:02 |
| 10 | 08:46 16:01 | | 07:56 17:05 | | 06:47 18:07 | 16:17 (C13) 16:40 (C13) | 06:25 20:12 | | 05:13 21:14 | 05:42 (C4) | 04:28 22:03 |
| 11 | 08:45 16:03 | | 07:54 17:08 | | 06:45 18:09 | 16:19 (C13) 16:37 (C13) | 06:22 20:14 | | 05:10 21:16 | 05:41 (C4) | 04:27 22:04 |
| 12 | 08:44 16:04 | | 07:52 17:10 | | 06:42 18:11 | 16:24 (C13) 16:33 (C13) | 06:20 20:16 | | 05:08 21:18 | 05:39 (C4) | 04:27 22:05 |
| 13 | 08:43 16:06 | | 07:49 17:12 | | 06:39 18:13 | | 06:17 20:18 | 06:43 (C6) | 05:06 21:20 | 05:39 (C4) | 04:26 22:06 |
| 14 | 08:42 16:08 | | 07:47 17:14 | | 06:37 18:15 | | 06:14 20:20 | 06:40 (C6) | 05:04 21:22 | 05:39 (C4) | 04:26 22:07 |
| 15 | 08:41 16:10 | | 07:45 17:17 | | 06:34 18:17 | | 06:12 20:22 | 06:38 (C6) | 05:02 21:23 | 05:38 (C4) | 04:26 22:07 |
| 16 | 08:40 16:12 | 15:31 (C14) | 07:43 17:19 | 16:28 (C13) | 06:31 18:20 | | 06:09 20:24 | 06:35 (C6) | 05:01 21:25 | 05:37 (C4) | 04:25 22:08 |
| 17 | 08:39 16:14 | 15:32 (C14) | 07:40 17:21 | 16:34 (C13) | 06:29 18:22 | | 06:07 20:26 | 06:33 (C6) | 04:59 21:27 | 05:38 (C4) | 04:25 22:08 |
| 18 | 08:37 16:16 | 15:34 (C14) | 07:38 17:23 | 16:39 (C13) | 06:26 18:24 | | 06:04 20:28 | 06:30 (C6) | 04:57 21:29 | 05:37 (C4) | 04:25 22:09 |
| 19 | 08:36 16:18 | 15:29 (C14) | 07:35 17:25 | 16:41 (C13) | 06:23 18:26 | | 06:02 20:30 | 06:30 (C6) | 04:55 21:31 | 05:37 (C4) | 04:25 22:09 |
| 20 | 08:35 16:20 | 15:28 (C14) | 07:33 17:28 | 16:44 (C13) | 06:21 18:28 | 06:46 (C8) | 05:59 20:32 | 06:29 (C6) | 04:53 21:33 | 05:37 (C4) | 04:25 22:10 |
| 21 | 08:33 16:22 | 15:28 (C14) | 07:31 17:30 | 16:45 (C13) | 06:18 18:30 | 06:47 (C8) | 05:57 20:35 | 06:29 (C6) | 04:52 21:35 | 05:37 (C4) | 04:25 22:10 |
| 22 | 08:32 16:24 | 15:44 (C14) | 07:30 17:32 | 16:46 (C13) | 06:15 18:32 | 06:49 (C8) | 05:54 20:37 | 06:49 (C6) | 04:52 21:36 | 06:04 (C4) | 04:25 22:10 |
| 23 | 08:30 16:26 | 15:28 (C14) | 07:28 17:34 | 16:15 (C13) | 06:13 18:34 | 06:41 (C8) | 05:52 20:39 | 06:30 (C6) | 04:50 21:38 | 05:37 (C4) | 04:25 22:10 |
| 24 | 08:29 16:28 | 15:47 (C14) | 07:26 17:36 | 16:14 (C13) | 06:10 18:36 | 06:38 (C8) | 05:52 20:41 | 06:47 (C6) | 04:48 21:40 | 06:04 (C4) | 04:26 22:10 |
| 25 | 08:27 16:30 | 15:27 (C14) | 07:23 17:39 | 16:13 (C13) | 06:07 18:38 | 06:35 (C8) | 05:49 20:43 | 06:31 (C6) | 04:47 21:42 | 05:37 (C4) | 04:26 22:10 |
| 26 | 08:25 16:32 | 15:48 (C14) | 07:21 17:41 | 16:48 (C13) | 06:05 18:40 | 06:32 (C8) | 05:47 20:45 | 06:46 (C6) | 04:45 21:44 | 06:04 (C4) | 04:26 22:10 |
| 27 | 08:24 16:34 | 15:28 (C14) | 07:18 17:43 | 16:12 (C13) | 06:02 18:43 | 06:32 (C8) | 05:44 20:47 | 06:45 (C6) | 04:44 21:46 | 05:39 (C4) | 04:27 22:10 |
| 28 | 08:22 16:36 | 15:29 (C14) | 07:16 17:45 | 16:49 (C13) | 06:00 18:45 | 06:33 (C6) | 05:42 20:49 | 06:42 (C6) | 04:42 21:48 | 06:05 (C4) | 04:27 22:10 |
| 29 | 08:20 16:39 | 15:49 (C14) | 07:13 17:48 | 16:12 (C13) | 05:59 18:47 | 06:42 (C6) | 05:41 20:51 | 06:41 (C6) | 04:41 21:50 | 06:04 (C4) | 04:28 22:10 |
| 30 | 08:18 16:41 | 15:30 (C14) | 07:11 17:50 | 16:16 (C13) | 05:57 18:49 | 06:49 (C8) | 05:39 20:53 | 06:49 (C6) | 04:39 21:52 | 05:39 (C4) | 04:28 22:10 |
| 31 | 08:17 16:43 | 15:49 (C14) | 07:09 17:51 | 16:12 (C13) | 05:55 18:51 | 07:33 (C8) | 05:37 20:55 | 06:49 (C6) | 04:38 21:54 | 06:04 (C4) | 04:29 22:10 |
| Potential sun hours | 235 | 15:48 (C14) | 266 | | 366 | 07:46 (C8) | 426 | 508 | 529 | | |
| Total, worst case | 257 | | 411 | | 522 | | 212 | 584 | 200 | | |
| Sun reduction | 0.13 | | 0.20 | | 0.41 | | 0.50 | 0.57 | 0.56 | | |
| Oper. time red. | 0.98 | | 0.98 | | 0.98 | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | 0.65 | | 0.67 | | 0.67 | | 0.65 | 0.67 | 0.67 | | |
| Total reduction | 0.08 | | 0.13 | | 0.27 | | 0.32 | 0.37 | 0.37 | | |
| Total, real | 22 | | 54 | | 139 | | 68 | 217 | 73 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (146)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|---------------|-------|---------------|-------|---------------|----------------|----------------|----------------|----------------|-------------|
| 1 | 04:30 | 05:53 (C4) | 05:16 | 05:50 (C4) | 06:17 | 07:17 | | 07:22 | | 08:24 | |
| | 22:09 | 9 06:02 (C4) | 21:28 | 22 06:12 (C4) | 20:14 | 18:54 | | 16:36 | | 15:45 | |
| 2 | 04:31 | 05:53 (C4) | 05:17 | 05:51 (C4) | 06:19 | 07:19 | | 07:25 | | 08:26 | |
| | 22:08 | 10 06:03 (C4) | 21:26 | 20 06:11 (C4) | 20:11 | 18:51 | 14 17:14 (C13) | 16:34 | | 15:44 | |
| 3 | 04:32 | 05:52 (C4) | 05:19 | 05:53 (C4) | 06:21 | 07:21 | | 07:27 | | 08:27 | |
| | 22:08 | 12 06:04 (C4) | 21:24 | 17 06:10 (C4) | 20:09 | 18:48 | 20 17:17 (C13) | 16:31 | | 15:43 | |
| 4 | 04:33 | 05:52 (C4) | 05:21 | 05:55 (C4) | 06:23 | 07:23 | | 07:29 | | 08:29 | |
| | 22:07 | 13 06:05 (C4) | 21:22 | 14 06:09 (C4) | 20:06 | 18:46 | 24 17:18 (C13) | 16:29 | | 15:42 | |
| 5 | 04:34 | 05:52 (C4) | 05:23 | 05:56 (C4) | 06:25 | 07:25 | | 07:31 | | 08:31 | |
| | 22:07 | 14 06:06 (C4) | 21:19 | 9 06:05 (C4) | 20:03 | 18:43 | 28 17:20 (C13) | 16:27 | | 15:42 | |
| 6 | 04:35 | 05:51 (C4) | 05:25 | | 06:27 | 07:27 | | 07:33 | | 08:32 | |
| | 22:06 | 16 06:07 (C4) | 21:17 | | 20:01 | 18:40 | 30 17:20 (C13) | 16:25 | | 15:41 | |
| 7 | 04:36 | 05:51 (C4) | 05:27 | | 06:29 | 07:29 | | 07:36 | | 08:34 | |
| | 22:05 | 17 06:08 (C4) | 21:15 | | 19:58 | 18:38 | 32 17:21 (C13) | 16:23 | | 15:40 | |
| 8 | 04:37 | 05:50 (C4) | 05:29 | | 06:31 | 07:31 | | 07:38 | | 08:35 | |
| | 22:04 | 18 06:08 (C4) | 21:13 | | 19:55 | 18:35 | 34 17:21 (C13) | 16:21 | 10 15:16 (C14) | 15:40 | |
| 9 | 04:38 | 05:50 (C4) | 05:31 | | 06:33 | 07:34 | | 07:40 | | 08:36 | |
| | 22:03 | 19 06:09 (C4) | 21:11 | | 19:53 | 18:32 | 35 17:21 (C13) | 16:19 | 13 15:17 (C14) | 15:39 | |
| 10 | 04:39 | 05:49 (C4) | 05:33 | | 06:35 | 07:36 | | 07:42 | | 08:38 | |
| | 22:02 | 21 06:10 (C4) | 21:08 | | 19:50 | 18:30 | 37 17:23 (C13) | 16:17 | 16 15:18 (C14) | 15:39 | |
| 11 | 04:41 | 05:49 (C4) | 05:35 | | 06:37 | 07:38 | | 07:44 | | 08:39 | 13:45 (C15) |
| | 22:01 | 21 06:10 (C4) | 21:06 | | 19:47 | 6 07:36 (C8) | 18:27 | 36 17:22 (C13) | 16:15 | 18 15:20 (C14) | 15:38 |
| 12 | 04:42 | 05:49 (C4) | 05:37 | | 06:39 | 07:26 (C8) | 18:20 | | 16:45 (C13) | 07:46 | 13:43 (C15) |
| | 22:00 | 23 06:12 (C4) | 21:04 | | 19:45 | 12 07:38 (C8) | 18:25 | 37 17:22 (C13) | 16:13 | 19 15:20 (C14) | 15:38 |
| 13 | 04:43 | 05:49 (C4) | 05:39 | | 06:41 | 07:25 (C8) | 18:22 | | 16:44 (C13) | 07:48 | 13:44 (C15) |
| | 21:59 | 23 06:12 (C4) | 21:01 | | 19:42 | 15 07:40 (C8) | 18:22 | 38 17:22 (C13) | 16:11 | 20 15:21 (C14) | 15:38 |
| 14 | 04:45 | 05:48 (C4) | 05:41 | | 06:43 | 07:23 (C8) | 18:19 | | 16:44 (C13) | 07:51 | 13:43 (C15) |
| | 21:58 | 24 06:12 (C4) | 20:59 | | 19:39 | 17 07:40 (C8) | 18:19 | 37 17:21 (C13) | 16:09 | 20 15:21 (C14) | 15:38 |
| 15 | 04:46 | 05:48 (C4) | 05:43 | | 06:45 | 07:22 (C8) | 18:17 | | 16:45 (C13) | 07:53 | 13:43 (C15) |
| | 21:56 | 24 06:12 (C4) | 20:57 | | 19:37 | 19 07:41 (C8) | 18:17 | 37 17:22 (C13) | 16:07 | 21 15:21 (C14) | 15:38 |
| 16 | 04:48 | 05:48 (C4) | 05:45 | | 06:47 | 07:21 (C8) | 18:14 | | 16:45 (C13) | 07:55 | 13:43 (C15) |
| | 21:55 | 25 06:13 (C4) | 20:54 | | 19:34 | 20 07:41 (C8) | 18:14 | 36 17:21 (C13) | 16:06 | 21 15:22 (C14) | 15:38 |
| 17 | 04:49 | 05:47 (C4) | 05:47 | 06:39 (C6) | 06:49 | 07:21 (C8) | 18:12 | | 16:44 (C13) | 07:57 | 13:44 (C15) |
| | 21:54 | 26 06:13 (C4) | 20:52 | 10 06:49 (C6) | 19:31 | 20 07:41 (C8) | 18:12 | 36 17:20 (C13) | 16:04 | 21 15:22 (C14) | 15:38 |
| 18 | 04:51 | 05:48 (C4) | 05:49 | 06:38 (C6) | 06:51 | 07:21 (C8) | 18:12 | | 16:45 (C13) | 07:59 | 13:44 (C15) |
| | 21:52 | 26 06:14 (C4) | 20:49 | 13 06:51 (C6) | 19:28 | 19 07:40 (C8) | 18:09 | 34 17:19 (C13) | 16:02 | 21 15:22 (C14) | 15:38 |
| 19 | 04:52 | 05:47 (C4) | 05:51 | 06:36 (C6) | 06:53 | 07:22 (C8) | 18:07 | | 16:45 (C13) | 08:01 | 13:44 (C15) |
| | 21:51 | 27 06:14 (C4) | 20:47 | 16 06:52 (C6) | 19:26 | 18 07:40 (C8) | 18:07 | 33 17:18 (C13) | 16:01 | 20 15:22 (C14) | 15:38 |
| 20 | 04:54 | 05:48 (C4) | 05:53 | 06:35 (C6) | 06:55 | 07:24 (C8) | 18:07 | | 16:46 (C13) | 08:03 | 13:44 (C15) |
| | 21:49 | 27 06:15 (C4) | 20:45 | 18 06:53 (C6) | 19:23 | 15 07:39 (C8) | 18:04 | 32 17:18 (C13) | 15:59 | 18 15:21 (C14) | 15:39 |
| 21 | 04:56 | 05:47 (C4) | 05:55 | 06:35 (C6) | 06:57 | 07:25 (C8) | 18:02 | | 16:47 (C13) | 08:05 | 13:45 (C15) |
| | 21:48 | 28 06:15 (C4) | 20:42 | 19 06:54 (C6) | 19:20 | 11 07:36 (C8) | 18:02 | 29 17:16 (C13) | 15:58 | 16 15:19 (C14) | 15:39 |
| 22 | 04:57 | 05:48 (C4) | 05:57 | 06:34 (C6) | 06:59 | 07:27 (C8) | 18:01 | | 16:48 (C13) | 08:07 | 13:45 (C15) |
| | 21:46 | 27 06:15 (C4) | 20:40 | 20 06:54 (C6) | 19:18 | 8 07:35 (C8) | 17:59 | 26 17:14 (C13) | 15:56 | 14 15:18 (C14) | 15:39 |
| 23 | 04:59 | 05:47 (C4) | 05:59 | 06:34 (C6) | 07:01 | 07:29 (C8) | 18:03 | | 16:50 (C13) | 08:09 | 13:45 (C15) |
| | 21:44 | 28 06:15 (C4) | 20:37 | 20 06:54 (C6) | 19:15 | 3 07:32 (C8) | 17:57 | 23 17:13 (C13) | 15:55 | 11 15:16 (C14) | 15:40 |
| 24 | 05:01 | 05:47 (C4) | 06:01 | 06:34 (C6) | 07:03 | | 17:55 | | 16:51 (C13) | 08:11 | 13:46 (C15) |
| | 21:43 | 28 06:15 (C4) | 20:35 | 20 06:54 (C6) | 19:12 | | 17:55 | 20 17:11 (C13) | 15:53 | 8 15:14 (C14) | 15:40 |
| 25 | 05:03 | 05:47 (C4) | 06:03 | 06:34 (C6) | 07:05 | | 17:55 | | 15:54 (C13) | 08:13 | 13:47 (C15) |
| | 21:41 | 27 06:14 (C4) | 20:32 | 19 06:53 (C6) | 19:10 | | 16:52 | 14 16:08 (C13) | 15:52 | 5 15:12 (C14) | 15:41 |
| 26 | 05:04 | 05:48 (C4) | 06:05 | 06:35 (C6) | 07:07 | | 17:09 | | 08:15 | 15:09 (C14) | 13:47 (C15) |
| | 21:39 | 27 06:15 (C4) | 20:29 | 17 06:52 (C6) | 19:07 | | 16:50 | | 15:51 | 2 15:11 (C14) | 15:42 |
| 27 | 05:06 | 05:48 (C4) | 06:07 | 06:37 (C6) | 07:09 | | 17:12 | | 08:17 | | 13:48 (C15) |
| | 21:37 | 27 06:15 (C4) | 20:27 | 14 06:51 (C6) | 19:04 | | 16:47 | | 15:49 | | 15:43 |
| 28 | 05:08 | 05:48 (C4) | 06:09 | 06:39 (C6) | 07:11 | | 17:14 | | 08:19 | | 13:49 (C15) |
| | 21:36 | 26 06:14 (C4) | 20:24 | 11 06:50 (C6) | 19:02 | | 16:45 | | 15:48 | | 15:44 |
| 29 | 05:10 | 05:48 (C4) | 06:11 | 06:41 (C6) | 07:13 | | 17:16 | | 08:21 | | 13:50 (C15) |
| | 21:34 | 26 06:14 (C4) | 20:22 | 7 06:48 (C6) | 18:59 | | 16:43 | | 15:47 | | 15:45 |
| 30 | 05:12 | 05:49 (C4) | 06:13 | 06:43 (C6) | 07:15 | | 17:18 | | 08:22 | | 13:51 (C15) |
| | 21:32 | 25 06:14 (C4) | 20:19 | 3 06:46 (C6) | 18:56 | | 16:40 | | 15:46 | | 15:46 |
| 31 | 05:14 | 05:50 (C4) | 06:15 | | | | 17:20 | | | | 08:51 |
| | 21:30 | 23 06:13 (C4) | 20:17 | | | | 16:38 | | | | 15:47 |
| Potential sun hours | 529 | | 469 | | 385 | | 324 | | 247 | | 216 |
| Total, worst case | 687 | | 289 | | 183 | | 722 | | 294 | | 243 |
| Sun reduction | 0.49 | | 0.50 | | 0.43 | | 0.26 | | 0.08 | | 0.07 |
| Oper. time red. | 0.98 | | 0.98 | | 0.98 | | 0.98 | | 0.98 | | 0.98 |
| Wind dir. red. | 0.67 | | 0.66 | | 0.65 | | 0.67 | | 0.65 | | 0.65 |
| Total reduction | 0.32 | | 0.32 | | 0.27 | | 0.17 | | 0.05 | | 0.04 |
| Total, real | 222 | | 92 | | 50 | | 123 | | 15 | | 11 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upmalnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (209)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December | |
|---------------------|----------------|----------------|---------------------|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 16:22 (C3) 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 | |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 16:22 (C3) 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:26 15:43 | |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:51 | 16:22 (C3) 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 | |
| 4 | 08:49 15:51 | 08:08 16:51 | 07:03 17:54 | 16:24 (C3) 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 | |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 16:24 (C3) 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 17:08 (C3) 17:19 (C3) | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:54 | 08:04 16:56 | 06:57 17:58 | 16:25 (C3) 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 17:05 (C3) 17:22 (C3) | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 16:27 (C3) 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 17:02 (C3) 17:23 (C3) | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 16:29 (C3) 20:07 | 05:16 21:09 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 17:00 (C3) 17:24 (C3) | 07:37 16:20 | 08:35 15:39 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 16:34 (C3) 20:09 | 05:14 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 16:58 (C3) 17:25 (C3) | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:06 | 16:37 (C3) 20:11 | 05:12 21:13 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 16:57 (C3) 17:25 (C3) | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 16:56 (C3) 17:26 (C3) | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 20:15 | 05:08 21:17 | 04:26 22:05 | 04:41 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 16:56 (C3) 17:27 (C3) | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 20:18 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 16:55 (C3) 17:27 (C3) | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:36 18:15 | 20:20 | 05:04 21:21 | 04:25 22:06 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 16:54 (C3) 17:26 (C3) | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:16 | 16:54 (C3) 17:26 (C3) | 07:52 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 16:37 (C3) 18:19 | 06:31 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 16:54 (C3) 17:25 (C3) | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:38 16:13 | 07:40 17:21 | 16:32 (C3) 18:21 | 06:28 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 16:54 (C3) 17:26 (C3) | 07:57 16:04 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 16:29 (C3) 18:23 | 06:26 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 16:54 (C3) 17:25 (C3) | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 16:28 (C3) 18:25 | 06:23 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 16:54 (C3) 17:24 (C3) | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 16:26 (C3) 18:28 | 06:20 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 16:55 (C3) 17:23 (C3) | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 16:25 (C3) 18:30 | 06:18 20:34 | 04:51 21:34 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 16:56 (C3) 17:22 (C3) | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 16:24 (C3) 18:32 | 06:15 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 16:57 (C3) 17:21 (C3) | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 16:23 (C3) 18:34 | 06:12 20:38 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 16:58 (C3) 17:19 (C3) | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:28 16:27 | 07:23 17:36 | 16:23 (C3) 18:36 | 06:10 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 17:00 (C3) 17:18 (C3) | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 16:22 (C3) 18:38 | 06:07 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 16:03 (C3) 16:14 (C3) | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 16:22 (C3) 18:40 | 06:04 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 16:14 (C3) | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:23 16:34 | 07:15 17:43 | 16:22 (C3) 18:42 | 06:02 20:47 | 04:41 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 16:14 (C3) | 08:17 15:49 | 08:50 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 16:22 (C3) 18:44 | 05:59 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 16:14 (C3) | 08:18 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | 07:11 17:46 | 16:21 (C3) 18:45 | 05:56 20:51 | 04:39 21:48 | 04:28 22:09 | 05:09 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:42 | 16:14 (C3) | 08:20 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | 07:09 17:48 | 16:20 (C3) 18:46 | 05:54 20:53 | 04:38 21:49 | 04:29 22:09 | 05:11 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 16:14 (C3) | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | 07:07 17:49 | 16:19 (C3) 18:47 | 05:51 20:50 | 04:36 21:51 | 04:28 22:10 | 05:13 21:30 | 06:15 20:16 | 07:20 16:38 | 07:20 16:38 | 16:14 (C3) | 08:22 15:45 | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 | |
| Total, worst case | | | | | | | | | | | | | |
| Sun reduction | | 326 | 203 | | | | | | | 537 | | | |
| Oper. time red. | | 0.20 | 0.41 | | | | | | | 0.26 | | | |
| Wind dir. red. | | 0.98 | 0.98 | | | | | | | 0.98 | | | |
| Total reduction | | 0.67 | 0.67 | | | | | | | 0.67 | | | |
| Total, real | | 0.13 | 0.27 | | | | | | | 0.17 | | | |
| | | 43 | 55 | | | | | | | 91 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (147)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|------|-------------|----------|------|-------------|-------|------|-------------|-------|------|------------|-------|------|------------|-------|------|------------|
| 1 | 08:51 | | 14:07 (C15) | 08:15 | | | 07:11 | | 07:40 (C10) | 06:49 | | 07:38 (C8) | 05:32 | | | 04:36 | | 05:29 (C4) |
| | 15:48 | 16 | 14:23 (C15) | 16:45 | | | 17:47 | 53 | 17:00 (C13) | 19:53 | 11 | 07:49 (C8) | 20:55 | | | 21:52 | 30 | 05:59 (C4) |
| 2 | 08:50 | | 14:07 (C15) | 08:13 | | | 07:08 | | 07:39 (C10) | 06:46 | | | 05:30 | | | 04:35 | | 05:29 (C4) |
| | 15:49 | 16 | 14:23 (C15) | 16:47 | | | 17:50 | 53 | 16:59 (C13) | 19:55 | | | 20:57 | | | 21:54 | 31 | 06:00 (C4) |
| 3 | 08:50 | | 14:08 (C15) | 08:11 | | | 07:06 | | 07:40 (C10) | 06:43 | | | 05:28 | | | 04:34 | | 05:29 (C4) |
| | 15:51 | 16 | 14:24 (C15) | 16:50 | | | 17:52 | 52 | 17:00 (C13) | 19:57 | | | 20:59 | | | 21:55 | 30 | 05:59 (C4) |
| 4 | 08:50 | | 14:09 (C15) | 08:09 | | | 07:03 | | 07:40 (C10) | 06:41 | | | 05:26 | | | 04:33 | | 05:29 (C4) |
| | 15:52 | 14 | 14:23 (C15) | 16:52 | | | 17:54 | 51 | 16:59 (C13) | 19:59 | | | 21:01 | | | 21:56 | 30 | 05:59 (C4) |
| 5 | 08:49 | | 14:11 (C15) | 08:07 | | | 07:00 | | 07:40 (C10) | 06:38 | | | 05:23 | | | 04:32 | | 05:30 (C4) |
| | 15:53 | 13 | 14:24 (C15) | 16:54 | | | 17:56 | 49 | 16:58 (C13) | 20:01 | | | 21:04 | | | 21:58 | 30 | 06:00 (C4) |
| 6 | 08:49 | | 14:12 (C15) | 08:05 | | | 06:58 | | 07:42 (C10) | 06:35 | | | 05:21 | | | 04:31 | | 05:30 (C4) |
| | 15:55 | 11 | 14:23 (C15) | 16:56 | | | 17:58 | 45 | 16:58 (C13) | 20:03 | | | 21:06 | | | 21:59 | 30 | 06:00 (C4) |
| 7 | 08:48 | | 14:13 (C15) | 08:03 | | | 06:55 | | 07:43 (C10) | 06:33 | | | 05:19 | | | 04:30 | | 05:30 (C4) |
| | 15:56 | 9 | 14:22 (C15) | 16:59 | | | 18:00 | 40 | 16:57 (C13) | 20:05 | | | 21:08 | | | 22:00 | 30 | 06:00 (C4) |
| 8 | 08:47 | | 14:16 (C15) | 08:00 | | | 06:53 | | 16:28 (C13) | 06:30 | | | 05:17 | | | 04:29 | | 05:31 (C4) |
| | 15:58 | 5 | 14:21 (C15) | 17:01 | | | 18:03 | 27 | 16:55 (C13) | 20:07 | | | 21:10 | | | 22:01 | 29 | 06:00 (C4) |
| 9 | 08:47 | | | 07:58 | | | 06:50 | | 16:29 (C13) | 06:27 | | | 05:15 | | | 04:28 | | 05:30 (C4) |
| | 15:59 | | | 17:03 | | | 18:05 | 26 | 16:55 (C13) | 20:10 | | | 21:12 | | | 22:02 | 30 | 06:00 (C4) |
| 10 | 08:46 | | | 07:56 | | | 06:47 | | 16:31 (C13) | 06:25 | | | 05:13 | | | 04:28 | | 05:31 (C4) |
| | 16:01 | | | 17:05 | | | 18:07 | 22 | 16:53 (C13) | 20:12 | | | 21:14 | | | 22:03 | 30 | 06:01 (C4) |
| 11 | 08:45 | | | 07:54 | | | 06:45 | | 16:32 (C13) | 06:22 | | | 05:10 | | | 04:27 | | 05:31 (C4) |
| | 16:03 | | | 17:08 | | | 18:09 | 18 | 16:50 (C13) | 20:14 | | | 21:16 | | | 22:04 | 29 | 06:00 (C4) |
| 12 | 08:44 | | | 07:52 | | | 06:42 | | 16:36 (C13) | 06:20 | | | 05:08 | | | 04:27 | | 05:31 (C4) |
| | 16:04 | | | 17:10 | | | 18:11 | 11 | 16:47 (C13) | 20:16 | | | 21:18 | | | 22:05 | 29 | 06:00 (C4) |
| 13 | 08:43 | | | 07:49 | | | 06:39 | | | 06:17 | | | 05:06 | | | 04:26 | | 05:32 (C4) |
| | 16:06 | | | 17:12 | | | 18:13 | | | 20:18 | | | 21:20 | 5 | 05:40 (C4) | 04:26 | 29 | 06:01 (C4) |
| 14 | 08:42 | | | 07:47 | | | 06:37 | | | 06:14 | | 06:40 (C6) | 05:04 | | 05:37 (C4) | 04:26 | | 05:32 (C4) |
| | 16:08 | | | 17:14 | | | 18:15 | | | 20:20 | 1 | 06:41 (C6) | 21:22 | 12 | 05:49 (C4) | 22:07 | 28 | 06:00 (C4) |
| 15 | 08:41 | | | 07:45 | | | 06:34 | | | 06:12 | | 06:38 (C6) | 05:02 | | 05:35 (C4) | 04:26 | | 05:32 (C4) |
| | 16:10 | | | 17:16 | | | 18:17 | | | 20:22 | 7 | 06:45 (C6) | 21:23 | 16 | 05:51 (C4) | 22:07 | 29 | 06:01 (C4) |
| 16 | 08:40 | | | 07:42 | | | 06:31 | | | 06:09 | | 06:35 (C6) | 05:01 | | 05:33 (C4) | 04:25 | | 05:32 (C4) |
| | 16:12 | | | 17:19 | | | 18:20 | | | 20:24 | 11 | 06:46 (C6) | 21:25 | 19 | 05:52 (C4) | 22:08 | 29 | 06:01 (C4) |
| 17 | 08:39 | | | 07:40 | | | 06:29 | | | 06:07 | | 06:33 (C6) | 04:59 | | 05:33 (C4) | 04:25 | | 05:33 (C4) |
| | 16:14 | | | 17:21 | | | 18:22 | | | 20:26 | 15 | 06:48 (C6) | 21:27 | 21 | 05:54 (C4) | 22:08 | 28 | 06:01 (C4) |
| 18 | 08:37 | | | 07:38 | | | 06:26 | | | 06:04 | | 06:30 (C6) | 04:57 | | 05:31 (C4) | 04:25 | | 05:33 (C4) |
| | 16:16 | | | 17:23 | | | 18:24 | | | 20:28 | 18 | 06:48 (C6) | 21:29 | 23 | 05:54 (C4) | 22:09 | 28 | 06:01 (C4) |
| 19 | 08:36 | | | 07:35 | | | 06:23 | | | 06:02 | | 06:28 (C6) | 04:55 | | 05:30 (C4) | 04:25 | | 05:33 (C4) |
| | 16:18 | | | 17:25 | | | 18:26 | | | 20:30 | 20 | 06:48 (C6) | 21:31 | 25 | 05:55 (C4) | 22:09 | 28 | 06:01 (C4) |
| 20 | 08:35 | | | 07:33 | | 16:38 (C13) | 06:21 | | 06:46 (C8) | 05:59 | | 06:27 (C6) | 04:53 | | 05:30 (C4) | 04:25 | | 05:33 (C4) |
| | 16:20 | | | 17:28 | 12 | 16:50 (C13) | 18:28 | 6 | 06:52 (C8) | 20:32 | 21 | 06:48 (C6) | 21:33 | 26 | 05:56 (C4) | 22:10 | 28 | 06:01 (C4) |
| 21 | 08:33 | | | 07:31 | | 16:35 (C13) | 06:18 | | 06:43 (C8) | 05:57 | | 06:27 (C6) | 04:52 | | 05:29 (C4) | 04:25 | | 05:34 (C4) |
| | 16:22 | | | 17:30 | 18 | 16:53 (C13) | 18:30 | 11 | 06:54 (C8) | 20:35 | 21 | 06:48 (C6) | 21:35 | 27 | 05:56 (C4) | 22:10 | 28 | 06:02 (C4) |
| 22 | 08:32 | | | 07:28 | | 16:33 (C13) | 06:15 | | 06:41 (C8) | 05:54 | | 06:27 (C6) | 04:50 | | 05:29 (C4) | 04:25 | | 05:34 (C4) |
| | 16:24 | | | 17:32 | 22 | 16:55 (C13) | 18:32 | 14 | 06:55 (C8) | 20:37 | 22 | 06:49 (C6) | 21:36 | 28 | 05:57 (C4) | 22:10 | 28 | 06:02 (C4) |
| 23 | 08:30 | | | 07:26 | | 07:53 (C10) | 06:13 | | 06:38 (C8) | 05:52 | | 06:26 (C6) | 04:48 | | 05:28 (C4) | 04:26 | | 05:34 (C4) |
| | 16:26 | | | 17:34 | 26 | 16:57 (C13) | 18:34 | 18 | 06:56 (C8) | 20:39 | 22 | 06:48 (C6) | 21:38 | 29 | 05:57 (C4) | 22:10 | 28 | 06:02 (C4) |
| 24 | 08:29 | | | 07:23 | | 07:50 (C10) | 06:10 | | 06:35 (C8) | 05:49 | | 06:26 (C6) | 04:47 | | 05:28 (C4) | 04:26 | | 05:34 (C4) |
| | 16:28 | | | 17:36 | 33 | 16:57 (C13) | 18:36 | 21 | 06:56 (C8) | 20:41 | 21 | 06:47 (C6) | 21:40 | 30 | 05:58 (C4) | 22:10 | 28 | 06:02 (C4) |
| 25 | 08:27 | | | 07:21 | | 07:47 (C10) | 06:07 | | 06:34 (C8) | 05:47 | | 06:27 (C6) | 04:45 | | 05:29 (C4) | 04:26 | | 05:35 (C4) |
| | 16:30 | | | 17:39 | 39 | 16:58 (C13) | 18:38 | 22 | 06:56 (C8) | 20:43 | 20 | 06:47 (C6) | 21:42 | 29 | 05:58 (C4) | 22:10 | 28 | 06:03 (C4) |
| 26 | 08:25 | | | 07:18 | | 07:45 (C10) | 06:05 | | 06:34 (C8) | 05:44 | | 06:27 (C6) | 04:44 | | 05:29 (C4) | 04:27 | | 05:35 (C4) |
| | 16:32 | | | 17:41 | 44 | 16:59 (C13) | 18:40 | 22 | 06:56 (C8) | 20:45 | 18 | 06:45 (C6) | 21:43 | 30 | 05:59 (C4) | 22:10 | 28 | 06:03 (C4) |
| 27 | 08:24 | | | 07:16 | | 07:42 (C10) | 06:02 | | 06:34 (C8) | 05:42 | | 06:28 (C6) | 04:42 | | 05:28 (C4) | 04:27 | | 05:35 (C4) |
| | 16:34 | | | 17:43 | 49 | 16:59 (C13) | 18:43 | 21 | 06:55 (C8) | 20:47 | 16 | 06:44 (C6) | 21:45 | 30 | 05:58 (C4) | 22:10 | 29 | 06:04 (C4) |
| 28 | 08:22 | | | 07:13 | | 07:40 (C10) | 05:59 | | 06:34 (C8) | 05:39 | | 06:29 (C6) | 04:41 | | 05:28 (C4) | 04:28 | | 05:35 (C4) |
| | 16:36 | | | 17:45 | 52 | 17:00 (C13) | 18:45 | 20 | 06:54 (C8) | 20:49 | 14 | 06:43 (C6) | 21:46 | 31 | 05:59 (C4) | 22:10 | 28 | 06:03 (C4) |
| 29 | 08:20 | | | | | | 06:57 | | 07:35 (C8) | 05:37 | | 06:32 (C6) | 04:39 | | 05:28 (C4) | 04:28 | | 05:35 (C4) |
| | 16:39 | | | | | | 19:47 | 19 | 07:54 (C8) | 20:51 | 9 | 06:41 (C6) | 21:48 | 31 | 05:59 (C4) | 22:10 | 29 | 06:04 (C4) |
| 30 | 08:18 | | | | | | 06:54 | | 07:35 (C8) | 05:35 | | | 04:38 | | 05:28 (C4) | 04:29 | | 05:36 (C4) |
| | 16:41 | | | | | | 19:49 | 17 | 07:52 (C8) | 20:53 | | | 21:50 | 31 | 05:59 (C4) | 22:09 | 29 | 06:05 (C4) |
| 31 | 08:17 | | | | | | 06:51 | | 07:35 (C8) | | | | 04:37 | | 05:29 (C4) | | | |
| | 16:43 | | | | | | 19:51 | 15 | 07:50 (C8) | | | | 21:51 | 30 | 05:59 (C4) | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | | 426 | | | 508 | | | 529 | | |
| Total, worst case | | 100 | | | 295 | | | 653 | | | 267 | | | 473 | | | 868 | |
| Sun reduction | | 0.13 | | | 0.20 | | | 0.41 | | | 0.50 | | | 0.57 | | | 0.56 | |
| Oper. time red. | | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | |
| Wind dir. red. | | 0.66 | | | 0.66 | | | 0.66 | | | 0.65 | | | 0.67 | | | 0.67 | |
| Total reduction | | 0.09 | | | 0.13 | | | 0.26 | | | 0.32 | | | 0.37 | | | 0.37 | |
| Total, real | | 9 | | | 38 | | | 172 | | | 85 | | | 176 | | | 318 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (147)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | | August | | | | September | | | | October | | | | November | | December | |
|---------------------|-------|------|------------|-------|--------|------------|--|-------|-----------|------------|--|-------|-------------|-------------|-------|-------|-------------|--|----------|--|
| 1 | 04:30 | | 05:35 (C4) | 05:16 | | | | 06:17 | | | | 07:17 | 17:17 (C13) | 07:22 | 08:24 | | | | | |
| | 22:09 | 29 | 06:04 (C4) | 21:28 | | | | 20:14 | | | | 18:54 | 7 | 17:24 (C13) | 16:36 | 15:45 | | | | |
| 2 | 04:31 | | 05:35 (C4) | 05:17 | | | | 06:19 | | | | 07:19 | | 17:12 (C13) | 07:25 | 08:26 | | | | |
| | 22:08 | 30 | 06:05 (C4) | 21:26 | | | | 20:11 | | | | 18:51 | 16 | 17:28 (C13) | 16:34 | 15:44 | | | | |
| 3 | 04:32 | | 05:36 (C4) | 05:19 | | | | 06:21 | | | | 07:21 | | 17:09 (C13) | 07:27 | 08:27 | | | | |
| | 22:08 | 29 | 06:05 (C4) | 21:24 | | | | 20:09 | | | | 18:48 | 21 | 17:30 (C13) | 16:31 | 15:43 | | | | |
| 4 | 04:33 | | 05:36 (C4) | 05:21 | | | | 06:23 | | | | 07:23 | | 17:07 (C13) | 07:29 | 08:29 | 14:00 (C15) | | | |
| | 22:07 | 30 | 06:06 (C4) | 21:22 | | | | 20:06 | | | | 18:46 | 24 | 17:31 (C13) | 16:29 | 15:42 | 5 | | | |
| 5 | 04:34 | | 05:36 (C4) | 05:23 | | | | 06:25 | | | | 07:25 | | 17:05 (C13) | 07:31 | 08:31 | 13:59 (C15) | | | |
| | 22:07 | 30 | 06:06 (C4) | 21:19 | | | | 20:03 | | | | 18:43 | 27 | 17:32 (C13) | 16:27 | 15:42 | 8 | | | |
| 6 | 04:35 | | 05:36 (C4) | 05:25 | | | | 06:27 | | | | 07:27 | | 08:21 (C10) | 07:33 | 08:32 | 13:58 (C15) | | | |
| | 22:06 | 30 | 06:06 (C4) | 21:17 | | | | 20:01 | | | | 18:40 | 35 | 17:33 (C13) | 16:25 | 15:41 | 11 | | | |
| 7 | 04:36 | | 05:36 (C4) | 05:27 | | | | 06:29 | | | | 07:29 | | 08:18 (C10) | 07:36 | 08:34 | 13:57 (C15) | | | |
| | 22:05 | 31 | 06:07 (C4) | 21:15 | | | | 19:58 | | | | 18:38 | 42 | 17:33 (C13) | 16:23 | 15:40 | 13 | | | |
| 8 | 04:37 | | 05:36 (C4) | 05:29 | | | | 06:31 | | | | 07:31 | | 08:16 (C10) | 07:38 | 08:35 | 13:57 (C15) | | | |
| | 22:04 | 31 | 06:07 (C4) | 21:13 | | | | 19:55 | | | | 18:35 | 46 | 17:33 (C13) | 16:21 | 15:40 | 14 | | | |
| 9 | 04:38 | | 05:36 (C4) | 05:31 | | | | 06:33 | | | | 07:34 | | 08:15 (C10) | 07:40 | 08:36 | 13:57 (C15) | | | |
| | 22:03 | 31 | 06:07 (C4) | 21:11 | | | | 19:53 | | | | 18:32 | 49 | 17:33 (C13) | 16:19 | 15:39 | 15 | | | |
| 10 | 04:39 | | 05:36 (C4) | 05:33 | | | | 06:35 | | | | 07:36 | | 08:14 (C10) | 07:42 | 08:38 | 13:57 (C15) | | | |
| | 22:02 | 31 | 06:07 (C4) | 21:08 | | | | 19:50 | | | | 18:30 | 52 | 17:34 (C13) | 16:17 | 15:39 | 16 | | | |
| 11 | 04:41 | | 05:36 (C4) | 05:35 | | | | 06:37 | | 07:30 (C8) | | 07:38 | | 08:14 (C10) | 07:44 | 08:39 | 13:57 (C15) | | | |
| | 22:01 | 31 | 06:07 (C4) | 21:06 | | | | 19:47 | 11 | 07:41 (C8) | | 18:27 | 52 | 17:34 (C13) | 16:15 | 15:38 | 17 | | | |
| 12 | 04:42 | | 05:37 (C4) | 05:37 | | | | 06:39 | | 07:28 (C8) | | 07:40 | | 08:13 (C10) | 07:46 | 08:40 | 13:57 (C15) | | | |
| | 22:00 | 31 | 06:08 (C4) | 21:04 | | | | 19:45 | 15 | 07:43 (C8) | | 18:25 | 53 | 17:33 (C13) | 16:13 | 15:38 | 17 | | | |
| 13 | 04:43 | | 05:37 (C4) | 05:39 | | 06:42 (C6) | | 06:41 | | 07:26 (C8) | | 07:42 | | 08:13 (C10) | 07:48 | 08:41 | 13:58 (C15) | | | |
| | 21:59 | 31 | 06:08 (C4) | 21:01 | 4 | 06:46 (C6) | | 19:42 | 18 | 07:44 (C8) | | 18:22 | 53 | 17:33 (C13) | 16:11 | 15:38 | 17 | | | |
| 14 | 04:45 | | 05:37 (C4) | 05:41 | | 06:38 (C6) | | 06:43 | | 07:25 (C8) | | 07:44 | | 08:13 (C10) | 07:51 | 08:43 | 13:58 (C15) | | | |
| | 21:58 | 31 | 06:08 (C4) | 20:59 | 11 | 06:49 (C6) | | 19:39 | 19 | 07:44 (C8) | | 18:19 | 51 | 17:32 (C13) | 16:09 | 15:38 | 18 | | | |
| 15 | 04:46 | | 05:37 (C4) | 05:43 | | 06:37 (C6) | | 06:45 | | 07:24 (C8) | | 07:46 | | 08:16 (C10) | 07:53 | 08:44 | 13:58 (C15) | | | |
| | 21:56 | 30 | 06:07 (C4) | 20:57 | 14 | 06:51 (C6) | | 19:37 | 21 | 07:45 (C8) | | 18:17 | 47 | 17:32 (C13) | 16:07 | 15:38 | 18 | | | |
| 16 | 04:48 | | 05:37 (C4) | 05:45 | | 06:35 (C6) | | 06:47 | | 07:23 (C8) | | 07:48 | | 08:18 (C10) | 07:55 | 08:45 | 13:58 (C15) | | | |
| | 21:55 | 31 | 06:08 (C4) | 20:54 | 17 | 06:52 (C6) | | 19:34 | 22 | 07:45 (C8) | | 18:14 | 43 | 17:31 (C13) | 16:06 | 15:38 | 19 | | | |
| 17 | 04:49 | | 05:37 (C4) | 05:47 | | 06:33 (C6) | | 06:49 | | 07:23 (C8) | | 07:50 | | 08:20 (C10) | 07:57 | 08:45 | 13:59 (C15) | | | |
| | 21:54 | 31 | 06:08 (C4) | 20:52 | 19 | 06:52 (C6) | | 19:31 | 21 | 07:44 (C8) | | 18:12 | 38 | 17:30 (C13) | 16:04 | 15:38 | 19 | | | |
| 18 | 04:51 | | 05:38 (C4) | 05:49 | | 06:33 (C6) | | 06:51 | | 07:23 (C8) | | 07:52 | | 08:22 (C10) | 07:59 | 08:46 | 13:59 (C15) | | | |
| | 21:52 | 30 | 06:08 (C4) | 20:49 | 20 | 06:53 (C6) | | 19:28 | 21 | 07:44 (C8) | | 18:09 | 31 | 17:28 (C13) | 16:02 | 15:38 | 19 | | | |
| 19 | 04:52 | | 05:38 (C4) | 05:51 | | 06:32 (C6) | | 06:53 | | 07:23 (C8) | | 07:54 | | 17:03 (C13) | 08:01 | 08:47 | 13:59 (C15) | | | |
| | 21:51 | 29 | 06:07 (C4) | 20:47 | 21 | 06:53 (C6) | | 19:26 | 20 | 07:43 (C8) | | 18:07 | 24 | 17:27 (C13) | 16:01 | 15:38 | 19 | | | |
| 20 | 04:54 | | 05:39 (C4) | 05:53 | | 06:32 (C6) | | 06:55 | | 07:23 (C8) | | 07:57 | | 17:05 (C13) | 08:03 | 08:48 | 14:00 (C15) | | | |
| | 21:49 | 29 | 06:08 (C4) | 20:45 | 21 | 06:53 (C6) | | 19:23 | 19 | 07:42 (C8) | | 18:04 | 20 | 17:25 (C13) | 15:59 | 15:38 | 19 | | | |
| 21 | 04:56 | | 05:39 (C4) | 05:55 | | 06:31 (C6) | | 06:57 | | 07:25 (C8) | | 07:59 | | 17:06 (C13) | 08:05 | 08:48 | 14:00 (C15) | | | |
| | 21:48 | 28 | 06:07 (C4) | 20:42 | 22 | 06:53 (C6) | | 19:20 | 15 | 07:40 (C8) | | 18:02 | 17 | 17:23 (C13) | 15:58 | 15:39 | 20 | | | |
| 22 | 04:57 | | 05:40 (C4) | 05:57 | | 06:31 (C6) | | 06:59 | | 07:27 (C8) | | 08:01 | | 17:09 (C13) | 08:07 | 08:49 | 14:00 (C15) | | | |
| | 21:46 | 27 | 06:07 (C4) | 20:40 | 22 | 06:53 (C6) | | 19:18 | 12 | 07:39 (C8) | | 17:59 | 10 | 17:19 (C13) | 15:56 | 15:39 | 20 | | | |
| 23 | 04:59 | | 05:40 (C4) | 05:59 | | 06:31 (C6) | | 07:01 | | 07:29 (C8) | | 08:03 | | | 08:09 | 08:49 | 14:00 (C15) | | | |
| | 21:44 | 26 | 06:06 (C4) | 20:37 | 22 | 06:53 (C6) | | 19:15 | 7 | 07:36 (C8) | | 17:57 | | | 15:55 | 15:40 | 20 | | | |
| 24 | 05:01 | | 05:41 (C4) | 06:01 | | 06:32 (C6) | | 07:03 | | 07:31 (C8) | | 08:05 | | | 08:11 | 08:50 | 14:02 (C15) | | | |
| | 21:43 | 25 | 06:06 (C4) | 20:35 | 20 | 06:52 (C6) | | 19:12 | 1 | 07:32 (C8) | | 17:55 | | | 15:53 | 15:40 | 19 | | | |
| 25 | 05:03 | | 05:41 (C4) | 06:03 | | 06:34 (C6) | | 07:05 | | | | 07:07 | | | 08:13 | 08:50 | 14:02 (C15) | | | |
| | 21:41 | 24 | 06:05 (C4) | 20:32 | 17 | 06:51 (C6) | | 19:10 | | | | 16:52 | | | 15:52 | 15:41 | 19 | | | |
| 26 | 05:04 | | 05:42 (C4) | 06:05 | | 06:35 (C6) | | 07:07 | | | | 07:09 | | | 08:15 | 08:50 | 14:02 (C15) | | | |
| | 21:39 | 22 | 06:04 (C4) | 20:29 | 14 | 06:49 (C6) | | 19:07 | | | | 16:50 | | | 15:51 | 15:42 | 20 | | | |
| 27 | 05:06 | | 05:43 (C4) | 06:07 | | 06:37 (C6) | | 07:09 | | | | 07:12 | | | 08:17 | 08:51 | 14:03 (C15) | | | |
| | 21:37 | 21 | 06:04 (C4) | 20:27 | 11 | 06:48 (C6) | | 19:04 | | | | 16:47 | | | 15:49 | 15:43 | 19 | | | |
| 28 | 05:08 | | 05:44 (C4) | 06:09 | | 06:39 (C6) | | 07:11 | | | | 07:14 | | | 08:19 | 08:51 | 14:04 (C15) | | | |
| | 21:36 | 18 | 06:02 (C4) | 20:24 | 7 | 06:46 (C6) | | 19:02 | | | | 16:45 | | | 15:48 | 15:44 | 18 | | | |
| 29 | 05:10 | | 05:46 (C4) | 06:11 | | | | 07:13 | | | | 07:16 | | | 08:21 | 08:51 | 14:04 (C15) | | | |
| | 21:34 | 14 | 06:00 (C4) | 20:22 | | | | 18:59 | | | | 16:43 | | | 15:47 | 15:44 | 19 | | | |
| 30 | 05:12 | | 05:49 (C4) | 06:13 | | | | 07:15 | | | | 07:18 | | | 08:22 | 08:51 | 14:05 (C15) | | | |
| | 21:32 | 9 | 05:58 (C4) | 20:19 | | | | 18:56 | | | | 16:40 | | | 15:46 | 15:46 | 18 | | | |
| 31 | 05:14 | | | 06:15 | | | | | | | | 07:20 | | | | 08:51 | 14:05 (C15) | | | |
| | 21:30 | | | 20:16 | | | | | | | | 16:38 | | | | 15:47 | 18 | | | |
| Potential sun hours | 529 | | | 469 | | | | 385 | | | | 324 | | | 247 | | 216 | | | |
| Total, worst case | | 820 | | 262 | | | | 222 | | | | 758 | | | | | 474 | | | |
| Sun reduction | | 0.49 | | 0.50 | | | | 0.43 | | | | 0.26 | | | | | 0.07 | | | |
| Oper. time red. | | 0.98 | | 0.98 | | | | 0.98 | | | | 0.98 | | | | | 0.98 | | | |
| Wind dir. red. | | 0.67 | | 0.65 | | | | 0.65 | | | | 0.66 | | | | | 0.66 | | | |
| Total reduction | | 0.32 | | 0.32 | | | | 0.27 | | | | 0.17 | | | | | 0.05 | | | |
| Total, real | | 265 | | 83 | | | | 60 | | | | 126 | | | | | 21 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Upiš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (210)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:16 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:52 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:13 18:34 | 05:52 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:40 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Urbani 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (108)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:49 | 08:15 16:46 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:44 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:56 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:19 | 06:25 20:04 | 07:26 18:43 | 07:31 16:28 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:32 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:12 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:26 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:00 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:37 | 06:08 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:36 | 06:10 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Urgas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (55)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Uzkalnini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (211)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:47 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:42 |
| 4 | 08:49 15:51 | 08:08 16:51 | 07:03 17:53 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:42 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:54 | 08:04 16:56 | 06:57 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:22 | 08:33 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:09 | 04:28 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:20 | 08:35 15:39 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 04:37 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 06:24 20:11 | 05:12 21:13 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:26 22:05 | 04:41 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:12 | 08:40 15:37 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:41 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:06 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:44 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:16 | 07:52 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:33 | 07:48 18:14 | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:38 16:13 | 07:40 17:20 | 06:28 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:03 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:24 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:25 | 06:01 20:30 | 04:54 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:20 18:28 | 05:59 20:32 | 04:53 21:33 | 04:24 22:09 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:00 17:59 | 08:07 15:55 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:25 22:10 | 04:58 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:56 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:28 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:31 | 07:18 17:40 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:06 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:07 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:09 21:33 | 06:11 20:21 | 07:13 18:58 | 07:16 16:42 | 08:20 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | 05:34 20:53 | 04:38 21:49 | 04:28 22:09 | 05:11 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:50 | | 04:36 21:51 | | 05:13 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vaivarini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (171)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December | | |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------------|----------------|----------------------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 05:15 (C14) 05:38 (C14) | 04:30 22:09 | 05:23 (C14) 05:44 (C14) | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 05:16 (C14) 05:38 (C14) | 04:31 22:08 | 05:22 (C14) 05:43 (C14) | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 05:17 (C14) 05:39 (C14) | 04:32 22:08 | 05:23 (C14) 05:44 (C14) | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 05:17 (C14) 05:39 (C14) | 04:33 22:07 | 05:23 (C14) 05:44 (C14) | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 05:17 (C14) 05:39 (C14) | 04:34 22:07 | 05:23 (C14) 05:45 (C14) | 05:24 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 05:17 (C14) 05:39 (C14) | 04:35 22:06 | 05:23 (C14) 05:45 (C14) | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 05:18 (C14) 05:39 (C14) | 04:36 22:05 | 05:23 (C14) 05:45 (C14) | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 05:17 (C14) 05:39 (C14) | 04:37 22:04 | 05:23 (C14) 05:45 (C14) | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 05:18 (C14) 05:39 (C14) | 04:38 22:03 | 05:23 (C14) 05:46 (C14) | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 05:18 (C14) 05:39 (C14) | 04:40 22:02 | 05:23 (C14) 05:46 (C14) | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 05:19 (C14) 05:39 (C14) | 04:41 22:01 | 05:24 (C14) 05:47 (C14) | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 05:18 (C14) 05:39 (C14) | 04:42 22:00 | 05:24 (C14) 05:47 (C14) | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 05:19 (C14) 05:39 (C14) | 04:44 21:59 | 05:24 (C14) 05:47 (C14) | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 05:20 (C14) 05:40 (C14) | 04:45 21:58 | 05:24 (C14) 05:47 (C14) | 05:41 21:02 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 05:20 (C14) 05:40 (C14) | 04:47 21:57 | 05:25 (C14) 05:47 (C14) | 05:43 21:02 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 05:21 (C14) 05:40 (C14) | 04:48 21:55 | 05:25 (C14) 05:47 (C14) | 05:45 21:02 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 05:20 (C14) 05:39 (C14) | 04:50 21:54 | 05:26 (C14) 05:47 (C14) | 05:47 21:02 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 05:20 (C14) 05:39 (C14) | 04:51 21:52 | 05:27 (C14) 05:47 (C14) | 05:49 21:02 | 06:51 19:29 | 07:52 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 05:21 (C14) 05:41 (C14) | 04:53 21:51 | 05:28 (C14) 05:47 (C14) | 05:51 21:02 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 05:21 (C14) 05:41 (C14) | 04:54 21:49 | 05:30 (C14) 05:47 (C14) | 05:53 21:02 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 05:22 (C14) 05:41 (C14) | 04:56 21:48 | 05:31 (C14) 05:47 (C14) | 05:55 21:02 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 05:22 (C14) 05:41 (C14) | 04:58 21:46 | 05:33 (C14) 05:47 (C14) | 05:57 21:02 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:21 (C14) 05:36 (C14) | 04:59 21:45 | 05:35 (C14) 05:47 (C14) | 05:59 21:02 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:19 (C14) 05:36 (C14) | 04:59 21:43 | 05:36 (C14) 05:47 (C14) | 06:01 21:02 | 07:03 19:12 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:18 (C14) 05:36 (C14) | 04:59 21:41 | 05:38 (C14) 05:47 (C14) | 06:03 21:02 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:17 (C14) 05:37 (C14) | 04:59 21:39 | 05:37 (C14) 05:47 (C14) | 06:05 21:02 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:16 (C14) 05:38 (C14) | 04:57 21:37 | 05:36 (C14) 05:47 (C14) | 06:07 21:02 | 07:09 19:04 | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:15 (C14) 05:37 (C14) | 04:58 21:36 | 05:35 (C14) 05:47 (C14) | 06:09 21:02 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:10 17:47 | 05:57 18:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:15 (C14) 05:37 (C14) | 04:59 21:34 | 05:34 (C14) 05:47 (C14) | 06:11 21:02 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | 07:06 17:49 | 05:54 18:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:15 (C14) 05:38 (C14) | 04:59 21:32 | 05:33 (C14) 05:47 (C14) | 06:13 21:02 | 07:15 18:56 | 08:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 07:05 17:51 | 05:52 18:51 | 05:33 20:53 | 04:37 21:51 | 04:37 22:09 | 05:15 (C14) 05:38 (C14) | 04:59 21:30 | 05:32 (C14) 05:47 (C14) | 06:15 21:02 | 07:17 16:38 | 08:20 16:38 | 08:51 15:47 | |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 | | |
| Total, worst case | | | | | 218 | 611 | 465 | | | | | | | |
| Sun reduction | | | | | 0.57 | 0.56 | 0.49 | | | | | | | |
| Oper. time red. | | | | | 0.98 | 0.98 | 0.98 | | | | | | | |
| Wind dir. red. | | | | | 0.67 | 0.67 | 0.67 | | | | | | | |
| Total reduction | | | | | 0.37 | 0.37 | 0.32 | | | | | | | |
| Total, real | | | | | 81 | 224 | 151 | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vecleiš upi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (181)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vecumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (18)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:53 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:09 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:52 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:57 | 04:32 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:04 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:19 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:42 15:37 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:04 | 08:46 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:50 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:47 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vecveveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 07:29 (C15) 07:48 (C15) | 05:33 20:55 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 07:30 (C15) 07:46 (C15) | 05:30 20:57 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 07:32 (C15) 07:44 (C15) | 05:28 21:00 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 07:35 (C15) 07:40 (C15) | 05:26 21:02 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 07:09 (C14) 07:07 (C14) | 05:24 21:04 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 06:44 (C14) 07:06 (C14) | 05:21 21:06 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 06:46 (C14) 07:04 (C14) | 05:19 21:08 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 06:48 (C14) 07:01 (C14) | 05:17 21:10 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 06:55 (C14) 07:05 (C14) | 05:11 21:16 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 06:51 (C14) 07:08 (C14) | 05:09 21:18 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 06:49 (C14) 07:11 (C14) | 05:07 21:20 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 06:46 (C14) 07:12 (C14) | 05:05 21:22 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 06:45 (C14) 07:14 (C14) | 05:03 21:24 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 06:43 (C14) 07:14 (C14) | 05:01 21:25 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 06:42 (C14) 07:15 (C14) | 04:59 21:27 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 06:41 (C14) 07:15 (C14) | 04:57 21:29 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 06:40 (C14) 07:16 (C14) | 04:55 21:31 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 06:40 (C14) 07:16 (C14) | 04:54 21:33 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 06:39 (C14) 07:16 (C14) | 04:52 21:35 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 06:39 (C14) 07:16 (C14) | 04:50 21:36 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 06:38 (C14) 07:16 (C14) | 04:48 21:38 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 06:38 (C14) 07:16 (C14) | 04:47 21:40 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 06:38 (C14) 07:16 (C14) | 04:45 21:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 06:37 (C14) 07:15 (C14) | 04:44 21:43 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 06:38 (C14) 07:14 (C14) | 04:42 21:45 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 06:38 (C14) 07:14 (C14) | 04:41 21:47 |
| 29 | 08:20 16:39 | 07:11 17:47 | 05:57 18:47 | 05:37 20:51 | 06:39 (C14) 07:14 (C14) | 04:40 21:48 |
| 30 | 08:18 16:41 | 07:09 17:49 | 05:54 18:49 | 05:35 20:53 | 06:39 (C14) 07:13 (C14) | 04:38 21:50 |
| 31 | 08:17 16:43 | 07:08 17:51 | 05:51 18:51 | 05:32 20:54 | 06:39 (C14) 07:13 (C14) | 04:37 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 180 | 693 | 295 | 673 |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | 0.65 | 0.66 | 0.66 | 0.67 |
| Total reduction | | | 0.26 | 0.32 | 0.37 | 0.37 |
| Total, real | | | 47 | 222 | 108 | 246 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vecveveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | | October | | | November | | | December | | |
|---------------------|-------|------|-------------|--------|------|-------------|-----------|----|-------------|---------|-------|-------|----------|--|--|----------|--|--|
| 1 | 04:30 | | 05:14 (C13) | 05:16 | | | 06:17 | | 06:54 (C14) | 07:17 | 07:23 | 08:24 | | | | | | |
| | 22:09 | 22 | 05:36 (C13) | 21:28 | | | 20:14 | 10 | 07:04 (C14) | 18:54 | 16:36 | 15:45 | | | | | | |
| 2 | 04:31 | | 05:13 (C13) | 05:18 | | | 06:19 | | | 07:19 | 07:25 | 08:26 | | | | | | |
| | 22:08 | 23 | 05:36 (C13) | 21:26 | | | 20:11 | | | 18:51 | 16:34 | 15:44 | | | | | | |
| 3 | 04:32 | | 05:13 (C13) | 05:20 | | | 06:21 | | | 07:21 | 07:27 | 08:28 | | | | | | |
| | 22:08 | 23 | 05:36 (C13) | 21:24 | | | 20:09 | | | 18:48 | 16:32 | 15:43 | | | | | | |
| 4 | 04:33 | | 05:14 (C13) | 05:22 | | 07:01 (C14) | 06:23 | | | 07:23 | 07:29 | 08:29 | | | | | | |
| | 22:07 | 23 | 05:37 (C13) | 21:22 | 7 | 07:08 (C14) | 20:06 | | | 18:46 | 16:30 | 15:43 | | | | | | |
| 5 | 04:34 | | 05:14 (C13) | 05:24 | | | 06:25 | | | 07:25 | 07:31 | 08:31 | | | | | | |
| | 22:07 | 23 | 05:37 (C13) | 21:19 | 14 | 07:12 (C14) | 20:03 | | | 18:43 | 16:27 | 15:42 | | | | | | |
| 6 | 04:35 | | 05:14 (C13) | 05:25 | | | 06:27 | | | 07:28 | 07:33 | 08:32 | | | | | | |
| | 22:06 | 23 | 05:37 (C13) | 21:17 | 19 | 07:14 (C14) | 20:01 | | | 18:40 | 16:25 | 15:41 | | | | | | |
| 7 | 04:36 | | 05:15 (C13) | 05:27 | | | 06:29 | | | 07:30 | 07:36 | 08:34 | | | | | | |
| | 22:05 | 22 | 05:37 (C13) | 21:15 | 22 | 07:15 (C14) | 19:58 | | | 18:38 | 16:23 | 15:40 | | | | | | |
| 8 | 04:37 | | 05:15 (C13) | 05:29 | | | 06:31 | | 07:30 (C15) | 07:32 | 07:38 | 08:35 | | | | | | |
| | 22:04 | 22 | 05:37 (C13) | 21:13 | 25 | 07:17 (C14) | 19:56 | 3 | 07:33 (C15) | 18:35 | 16:21 | 15:40 | | | | | | |
| 9 | 04:38 | | 05:15 (C13) | 05:31 | | | 06:33 | | 07:25 (C15) | 07:34 | 07:40 | 08:37 | | | | | | |
| | 22:03 | 22 | 05:37 (C13) | 21:11 | 27 | 07:18 (C14) | 19:53 | 12 | 07:37 (C15) | 18:33 | 16:19 | 15:39 | | | | | | |
| 10 | 04:40 | | 05:16 (C13) | 05:33 | | | 06:35 | | 07:23 (C15) | 07:36 | 07:42 | 08:38 | | | | | | |
| | 22:02 | 21 | 05:37 (C13) | 21:08 | 29 | 07:19 (C14) | 19:50 | 16 | 07:39 (C15) | 18:30 | 16:17 | 15:39 | | | | | | |
| 11 | 04:41 | | 05:18 (C13) | 05:35 | | | 06:37 | | 07:22 (C15) | 07:38 | 07:44 | 08:39 | | | | | | |
| | 22:01 | 20 | 05:38 (C13) | 21:06 | 31 | 07:20 (C14) | 19:47 | 18 | 07:40 (C15) | 18:27 | 16:15 | 15:39 | | | | | | |
| 12 | 04:42 | | 05:19 (C13) | 05:37 | | | 06:39 | | 07:20 (C15) | 07:40 | 07:46 | 08:40 | | | | | | |
| | 22:00 | 18 | 05:37 (C13) | 21:04 | 33 | 07:20 (C14) | 19:45 | 20 | 07:40 (C15) | 18:25 | 16:13 | 15:38 | | | | | | |
| 13 | 04:44 | | 05:20 (C13) | 05:39 | | | 06:41 | | 07:19 (C15) | 07:42 | 07:49 | 08:42 | | | | | | |
| | 21:59 | 17 | 05:37 (C13) | 21:02 | 35 | 07:21 (C14) | 19:42 | 22 | 07:41 (C15) | 18:22 | 16:11 | 15:38 | | | | | | |
| 14 | 04:45 | | 05:21 (C13) | 05:41 | | | 06:43 | | 07:19 (C15) | 07:44 | 07:51 | 08:43 | | | | | | |
| | 21:58 | 16 | 05:37 (C13) | 20:59 | 35 | 07:21 (C14) | 19:39 | 22 | 07:41 (C15) | 18:20 | 16:10 | 15:38 | | | | | | |
| 15 | 04:46 | | 05:23 (C13) | 05:43 | | | 06:45 | | 07:18 (C15) | 07:46 | 07:53 | 08:44 | | | | | | |
| | 21:57 | 14 | 05:37 (C13) | 20:57 | 37 | 07:22 (C14) | 19:37 | 23 | 07:41 (C15) | 18:17 | 16:08 | 15:38 | | | | | | |
| 16 | 04:48 | | 05:24 (C13) | 05:45 | | | 06:47 | | 07:18 (C15) | 07:48 | 07:55 | 08:45 | | | | | | |
| | 21:55 | 12 | 05:36 (C13) | 20:54 | 37 | 07:22 (C14) | 19:34 | 22 | 07:40 (C15) | 18:15 | 16:06 | 15:38 | | | | | | |
| 17 | 04:49 | | 05:25 (C13) | 05:47 | | | 06:49 | | 07:18 (C15) | 07:50 | 07:57 | 08:46 | | | | | | |
| | 21:54 | 10 | 05:35 (C13) | 20:52 | 37 | 07:22 (C14) | 19:31 | 22 | 07:40 (C15) | 18:12 | 16:04 | 15:38 | | | | | | |
| 18 | 04:51 | | 05:27 (C13) | 05:49 | | | 06:51 | | 07:20 (C15) | 07:52 | 07:59 | 08:46 | | | | | | |
| | 21:52 | 8 | 05:35 (C13) | 20:50 | 37 | 07:22 (C14) | 19:29 | 19 | 07:39 (C15) | 18:09 | 16:03 | 15:38 | | | | | | |
| 19 | 04:53 | | 05:28 (C13) | 05:51 | | | 06:53 | | 07:22 (C15) | 07:55 | 08:01 | 08:47 | | | | | | |
| | 21:51 | 6 | 05:34 (C13) | 20:47 | 38 | 07:21 (C14) | 19:26 | 16 | 07:38 (C15) | 18:07 | 16:01 | 15:38 | | | | | | |
| 20 | 04:54 | | 05:30 (C13) | 05:53 | | | 06:55 | | 07:24 (C15) | 07:57 | 08:03 | 08:48 | | | | | | |
| | 21:49 | 3 | 05:33 (C13) | 20:45 | 38 | 07:21 (C14) | 19:23 | 12 | 07:36 (C15) | 18:04 | 15:59 | 15:39 | | | | | | |
| 21 | 04:56 | | | 05:55 | | | 06:57 | | 07:26 (C15) | 07:59 | 08:05 | 08:48 | | | | | | |
| | 21:48 | | | 20:42 | 38 | 07:21 (C14) | 19:21 | 8 | 07:34 (C15) | 18:02 | 15:58 | 15:39 | | | | | | |
| 22 | 04:58 | | | 05:57 | | | 06:59 | | 07:28 (C15) | 08:01 | 08:07 | 08:49 | | | | | | |
| | 21:46 | | | 20:40 | 38 | 07:21 (C14) | 19:18 | 3 | 07:31 (C15) | 18:00 | 15:56 | 15:40 | | | | | | |
| 23 | 04:59 | | | 05:59 | | | 07:01 | | | 08:03 | 08:09 | 08:49 | | | | | | |
| | 21:45 | | | 20:37 | 36 | 07:20 (C14) | 19:15 | | | 17:57 | 15:55 | 15:40 | | | | | | |
| 24 | 05:01 | | | 06:01 | | | 07:03 | | | 08:05 | 08:11 | 08:50 | | | | | | |
| | 21:43 | | | 20:35 | 35 | 07:19 (C14) | 19:12 | | | 17:55 | 15:53 | 15:41 | | | | | | |
| 25 | 05:03 | | | 06:03 | | | 07:05 | | | 07:07 | 08:13 | 08:50 | | | | | | |
| | 21:41 | | | 20:32 | 35 | 07:19 (C14) | 19:10 | | | 16:52 | 15:52 | 15:41 | | | | | | |
| 26 | 05:05 | | | 06:05 | | | 07:07 | | | 07:10 | 08:15 | 08:51 | | | | | | |
| | 21:39 | | | 20:30 | 33 | 07:18 (C14) | 19:07 | | | 16:50 | 15:51 | 15:42 | | | | | | |
| 27 | 05:06 | | | 06:07 | | | 07:09 | | | 07:12 | 08:17 | 08:51 | | | | | | |
| | 21:38 | | | 20:27 | 31 | 07:17 (C14) | 19:04 | | | 16:48 | 15:50 | 15:43 | | | | | | |
| 28 | 05:08 | | | 06:09 | | | 07:11 | | | 07:14 | 08:19 | 08:51 | | | | | | |
| | 21:36 | | | 20:24 | 28 | 07:14 (C14) | 19:02 | | | 16:45 | 15:48 | 15:44 | | | | | | |
| 29 | 05:10 | | | 06:11 | | | 07:13 | | | 07:16 | 08:21 | 08:51 | | | | | | |
| | 21:34 | | | 20:22 | 26 | 07:13 (C14) | 18:59 | | | 16:43 | 15:47 | 15:45 | | | | | | |
| 30 | 05:12 | | | 06:13 | | | 07:15 | | | 07:18 | 08:22 | 08:51 | | | | | | |
| | 21:32 | | | 20:19 | 22 | 07:11 (C14) | 18:56 | | | 16:41 | 15:46 | 15:46 | | | | | | |
| 31 | 05:14 | | | 06:15 | | | 07:17 | | | 07:20 | | 08:51 | | | | | | |
| | 21:30 | | | 20:17 | 17 | 07:08 (C14) | | | | 16:38 | | 15:47 | | | | | | |
| Potential sun hours | 529 | | | 469 | | | 385 | | | 324 | 247 | 216 | | | | | | |
| Total, worst case | | 348 | | | 840 | | 248 | | | | | | | | | | | |
| Sun reduction | | 0.49 | | | 0.50 | | 0.43 | | | | | | | | | | | |
| Oper. time red. | | 0.98 | | | 0.98 | | 0.98 | | | | | | | | | | | |
| Wind dir. red. | | 0.67 | | | 0.66 | | 0.65 | | | | | | | | | | | |
| Total reduction | | 0.32 | | | 0.32 | | 0.27 | | | | | | | | | | | |
| Total, real | | 112 | | | 269 | | 68 | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Viduslejas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (5)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 09:05 (C13) 17:48 | 07:11 19:53 | 06:49 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:47 | 09:05 (C13) 17:50 | 07:08 19:55 | 06:46 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 09:06 (C13) 17:52 | 07:06 19:57 | 06:43 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 09:07 (C13) 17:54 | 07:03 19:59 | 06:41 21:02 | 04:33 21:57 | 04:33 22:07 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 09:09 (C13) 17:56 | 07:01 20:01 | 06:38 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 09:09 (C13) 17:58 | 06:58 20:03 | 06:35 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 09:12 (C13) 18:01 | 06:55 20:06 | 06:33 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 09:17 (C13) 18:03 | 06:53 20:08 | 06:30 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 15:59 | 07:58 17:03 | 09:18 (C13) 18:03 | 06:50 20:08 | 06:28 21:10 | 04:29 22:01 | 04:38 22:04 | 05:31 21:13 | 06:33 19:56 | 07:34 18:35 | 07:40 16:21 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:05 | 06:25 20:10 | 05:13 21:12 | 04:28 22:02 | 04:39 22:03 | 05:33 21:11 | 06:35 19:53 | 07:36 18:32 | 07:42 16:19 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:03 | 04:41 22:02 | 05:35 21:09 | 06:37 19:50 | 07:38 18:30 | 07:44 16:17 | 08:39 15:38 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:25 22:10 | 04:57 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:50 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:51 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:51 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:38 | 05:47 20:43 | 04:45 21:42 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:47 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:09 17:48 | 05:57 18:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | 07:04 17:51 | 05:54 18:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 07:05 17:59 | 05:51 18:51 | 05:37 21:51 | 04:37 21:51 | 04:29 21:30 | 05:14 21:17 | 06:15 20:17 | 07:20 17:38 | 08:22 16:38 | 08:26 15:47 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 276 | 133 | | | | | | | | | 414 | |
| Sun reduction | 0.13 | 0.20 | | | | | | | | | 0.08 | |
| Oper. time red. | 0.98 | 0.98 | | | | | | | | | 0.98 | |
| Wind dir. red. | 0.59 | 0.59 | | | | | | | | | 0.59 | |
| Total reduction | 0.08 | 0.12 | | | | | | | | | 0.05 | |
| Total, real | 21 | 15 | | | | | | | | | 20 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vijas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (29)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:49 | 08:15 16:46 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:44 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:24 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:26 20:04 | 07:26 18:43 | 07:31 16:28 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 20:04 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 20:06 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:32 21:11 | 06:33 20:06 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 20:06 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:23 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 20:06 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 20:06 | 07:40 18:25 | 07:46 16:13 | 08:40 15:39 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 20:06 | 07:42 18:22 | 07:49 16:12 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 20:06 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 20:06 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 20:06 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 20:06 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:37 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 20:06 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:26 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 20:06 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:54 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 20:06 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 20:06 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 20:06 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 05:00 21:45 | 05:59 20:37 | 07:01 20:06 | 08:03 18:00 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:50 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 20:06 | 08:05 18:00 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 20:06 | 08:07 18:00 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:06 20:30 | 07:07 20:06 | 08:08 18:00 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:08 20:27 | 07:09 20:06 | 08:10 18:00 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:10 20:24 | 07:11 20:06 | 08:11 18:00 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:11 17:47 | 05:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 20:06 | 08:12 18:00 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | 07:10 17:49 | 05:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 20:06 | 08:13 18:00 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | 07:08 17:51 | 05:52 19:51 | 05:37 20:51 | 04:37 21:51 | 04:30 21:51 | 05:14 21:30 | 06:16 20:17 | 07:20 20:06 | 08:15 18:00 | 08:24 15:47 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vilbaude - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (17)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:18 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:20 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:22 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:41 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:30 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:24 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:26 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:26 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:37 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:46 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:49 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:12 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:14 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:16 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vilniš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (138)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|--|-------|-------|----|------------|------------|--|-------|------|-------|--|
| 1 | 08:51 | | 14:00 (C13) | 08:15 | | 14:11 (C13) | 07:11 | | 06:49 | | | | 05:32 | | 04:36 | | | |
| | 15:48 | 34 | 14:34 (C13) | 16:45 | 32 | 14:43 (C13) | 17:47 | | 19:53 | | | | 20:55 | | 21:53 | | | |
| 2 | 08:50 | | 14:00 (C13) | 08:13 | | 14:13 (C13) | 07:08 | | 06:46 | | | | 05:30 | | 04:35 | | | |
| | 15:49 | 35 | 14:35 (C13) | 16:47 | 29 | 14:42 (C13) | 17:50 | | 19:55 | | | | 20:57 | | 21:54 | | | |
| 3 | 08:50 | | 14:00 (C13) | 08:11 | | 14:15 (C13) | 07:06 | | 06:43 | | | | 05:28 | | 04:34 | | | |
| | 15:51 | 36 | 14:36 (C13) | 16:50 | 26 | 14:41 (C13) | 17:52 | | 19:57 | | | | 20:59 | | 21:55 | | | |
| 4 | 08:50 | | 14:00 (C13) | 08:09 | | 14:17 (C13) | 07:03 | | 06:41 | | | | 05:26 | | 04:33 | | | |
| | 15:52 | 36 | 14:36 (C13) | 16:52 | 23 | 14:40 (C13) | 17:54 | | 19:59 | | | | 21:02 | | 21:57 | | | |
| 5 | 08:49 | | 14:01 (C13) | 08:07 | | 14:19 (C13) | 07:00 | | 06:38 | | | | 05:23 | | 04:32 | | | |
| | 15:53 | 36 | 14:37 (C13) | 16:54 | 19 | 14:38 (C13) | 17:56 | | 20:01 | | | | 21:04 | | 21:58 | | | |
| 6 | 08:49 | | 14:01 (C13) | 08:05 | | 14:22 (C13) | 06:58 | | 06:35 | | | | 05:21 | | 04:31 | | | |
| | 15:55 | 37 | 14:38 (C13) | 16:56 | 12 | 14:34 (C13) | 17:58 | | 20:03 | | | | 21:06 | | 21:59 | | | |
| 7 | 08:48 | | 14:01 (C13) | 08:03 | | | 06:55 | | 06:33 | | | | 05:19 | | 04:30 | | | |
| | 15:56 | 38 | 14:39 (C13) | 16:59 | | | 18:00 | | 20:05 | | | | 21:08 | | 22:00 | | | |
| 8 | 08:47 | | 14:01 (C13) | 08:00 | | | 06:53 | | 06:30 | | | | 05:17 | | 04:29 | | | |
| | 15:58 | 38 | 14:39 (C13) | 17:01 | | | 18:03 | | 20:07 | | | | 21:10 | | 22:01 | | | |
| 9 | 08:47 | | 14:01 (C13) | 07:58 | | | 06:50 | | 06:27 | | | | 05:15 | | 04:28 | | | |
| | 15:59 | 39 | 14:40 (C13) | 17:03 | | | 18:05 | | 20:10 | | 5 | 06:58 (C4) | 21:12 | | 22:02 | | | |
| 10 | 08:46 | | 14:01 (C13) | 07:56 | | | 06:47 | | 06:25 | | | | 06:50 (C4) | | 05:13 | | 04:28 | |
| | 16:01 | 40 | 14:41 (C13) | 17:05 | | | 18:07 | | 20:12 | | 10 | 07:00 (C4) | 21:14 | | 22:03 | | | |
| 11 | 08:45 | | 14:02 (C13) | 07:54 | | | 06:45 | | 06:22 | | | | 06:48 (C4) | | 05:10 | | 04:27 | |
| | 16:03 | 39 | 14:41 (C13) | 17:08 | | | 18:09 | | 20:14 | | 14 | 07:02 (C4) | 21:16 | | 22:04 | | | |
| 12 | 08:44 | | 14:01 (C13) | 07:52 | | | 06:42 | | 06:20 | | | | 06:45 (C4) | | 05:08 | | 04:27 | |
| | 16:04 | 40 | 14:41 (C13) | 17:10 | | | 18:11 | | 20:16 | | 17 | 07:02 (C4) | 21:18 | | 22:05 | | | |
| 13 | 08:43 | | 14:02 (C13) | 07:49 | | | 06:39 | | 06:17 | | | | 06:43 (C4) | | 05:06 | | 04:26 | |
| | 16:06 | 40 | 14:42 (C13) | 17:12 | | | 18:13 | | 20:18 | | 20 | 07:03 (C4) | 21:20 | | 22:06 | | | |
| 14 | 08:42 | | 14:02 (C13) | 07:47 | | | 06:37 | | 06:14 | | | | 06:41 (C4) | | 05:04 | | 04:26 | |
| | 16:08 | 41 | 14:43 (C13) | 17:14 | | | 18:15 | | 20:20 | | 21 | 07:02 (C4) | 21:22 | | 22:07 | | | |
| 15 | 08:41 | | 14:02 (C13) | 07:45 | | | 06:34 | | 06:12 | | | | 06:41 (C4) | | 05:02 | | 04:26 | |
| | 16:10 | 41 | 14:43 (C13) | 17:17 | | | 18:17 | | 20:22 | | 22 | 07:03 (C4) | 21:24 | | 22:07 | | | |
| 16 | 08:40 | | 14:02 (C13) | 07:43 | | | 06:31 | | 06:09 | | | | 06:40 (C4) | | 05:01 | | 04:25 | |
| | 16:12 | 42 | 14:44 (C13) | 17:19 | | | 18:20 | | 20:24 | | 22 | 07:02 (C4) | 21:25 | | 22:08 | | | |
| 17 | 08:39 | | 14:02 (C13) | 07:40 | | | 06:29 | | 06:07 | | | | 06:40 (C4) | | 04:59 | | 04:25 | |
| | 16:14 | 42 | 14:44 (C13) | 17:21 | | | 18:22 | | 20:26 | | 22 | 07:02 (C4) | 21:27 | | 22:08 | | | |
| 18 | 08:37 | | 14:03 (C13) | 07:38 | | | 06:26 | | 06:04 | | | | 06:40 (C4) | | 04:57 | | 04:25 | |
| | 16:16 | 42 | 14:45 (C13) | 17:23 | | | 18:24 | | 20:28 | | 21 | 07:01 (C4) | 21:29 | | 22:09 | | | |
| 19 | 08:36 | | 14:03 (C13) | 07:35 | | | 06:23 | | 06:02 | | | | 06:41 (C4) | | 04:55 | | 04:25 | |
| | 16:18 | 42 | 14:45 (C13) | 17:25 | | | 18:26 | | 20:30 | | 20 | 07:01 (C4) | 21:31 | | 22:09 | | | |
| 20 | 08:35 | | 14:04 (C13) | 07:33 | | | 06:21 | | 05:59 | | | | 06:41 (C4) | | 04:53 | | 04:25 | |
| | 16:20 | 42 | 14:46 (C13) | 17:28 | | | 18:28 | | 20:32 | | 18 | 06:59 (C4) | 21:33 | | 22:10 | | | |
| 21 | 08:33 | | 14:04 (C13) | 07:31 | | | 06:18 | | 05:57 | | | | 06:42 (C4) | | 04:52 | | 04:25 | |
| | 16:22 | 42 | 14:46 (C13) | 17:30 | | | 18:30 | | 20:35 | | 16 | 06:58 (C4) | 21:35 | | 22:10 | | | |
| 22 | 08:32 | | 14:04 (C13) | 07:28 | | | 06:15 | | 05:54 | | | | 06:44 (C4) | | 04:50 | | 04:25 | |
| | 16:24 | 42 | 14:46 (C13) | 17:32 | | | 18:32 | | 20:37 | | 12 | 06:56 (C4) | 21:36 | | 22:10 | | | |
| 23 | 08:30 | | 14:04 (C13) | 07:26 | | | 06:13 | | 05:52 | | | | 06:46 (C4) | | 04:48 | | 04:26 | |
| | 16:26 | 42 | 14:46 (C13) | 17:34 | | | 18:34 | | 20:39 | | 7 | 06:53 (C4) | 21:38 | | 22:10 | | | |
| 24 | 08:29 | | 14:05 (C13) | 07:23 | | | 06:10 | | 05:49 | | | | 04:47 | | 04:26 | | | |
| | 16:28 | 40 | 14:45 (C13) | 17:37 | | | 18:36 | | 20:41 | | | | 21:40 | | 22:10 | | | |
| 25 | 08:27 | | 14:06 (C13) | 07:21 | | | 06:07 | | 05:47 | | | | 04:45 | | 04:26 | | | |
| | 16:30 | 40 | 14:46 (C13) | 17:39 | | | 18:38 | | 20:43 | | | | 21:42 | | 22:10 | | | |
| 26 | 08:25 | | 14:07 (C13) | 07:18 | | | 06:05 | | 05:44 | | | | 04:44 | | 04:27 | | | |
| | 16:32 | 39 | 14:46 (C13) | 17:41 | | | 18:40 | | 20:45 | | | | 21:43 | | 22:10 | | | |
| 27 | 08:24 | | 14:07 (C13) | 07:16 | | | 06:02 | | 05:42 | | | | 04:42 | | 04:27 | | | |
| | 16:34 | 39 | 14:46 (C13) | 17:43 | | | 18:43 | | 20:47 | | | | 21:45 | | 22:10 | | | |
| 28 | 08:22 | | 14:08 (C13) | 07:13 | | | 05:59 | | 05:40 | | | | 04:41 | | 04:28 | | | |
| | 16:36 | 38 | 14:46 (C13) | 17:45 | | | 18:45 | | 20:49 | | | | 21:47 | | 22:10 | | | |
| 29 | 08:20 | | 14:09 (C13) | | | | 06:57 | | 05:37 | | | | 04:39 | | 04:28 | | | |
| | 16:39 | 37 | 14:46 (C13) | | | | 19:47 | | 20:51 | | | | 21:48 | | 22:10 | | | |
| 30 | 08:18 | | 14:10 (C13) | | | | 06:54 | | 05:35 | | | | 04:38 | | 04:29 | | | |
| | 16:41 | 35 | 14:45 (C13) | | | | 19:49 | | 20:53 | | | | 21:50 | | 22:09 | | | |
| 31 | 08:17 | | 14:10 (C13) | | | | 06:51 | | | | | | 04:37 | | | | | |
| | 16:43 | 34 | 14:44 (C13) | | | | 19:51 | | | | | | 21:51 | | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | 426 | | | | 508 | | 529 | | | |
| Total, worst case | 1208 | | | 141 | | | | | 247 | | | | | | | | | |
| Sun reduction | 0.13 | | | 0.20 | | | | | 0.50 | | | | | | | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | | | 0.98 | | | | | | | | | |
| Wind dir. red. | 0.66 | | | 0.66 | | | | | 0.66 | | | | | | | | | |
| Total reduction | 0.09 | | | 0.13 | | | | | 0.32 | | | | | | | | | |
| Total, real | 105 | | | 18 | | | | | 80 | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vilniš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (138)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|-----------|------------|------------|-------------|
| 1 | 04:30 | 05:16 | 06:17 | 06:47 (C4) | 07:17 | 07:23 |
| | 22:09 | 21:28 | 20:14 | 13 | 07:00 (C4) | 18:54 |
| 2 | 04:31 | 05:17 | 06:19 | 06:49 (C4) | 07:19 | 07:25 |
| | 22:08 | 21:26 | 20:11 | 10 | 06:59 (C4) | 18:51 |
| 3 | 04:32 | 05:19 | 06:21 | 06:51 (C4) | 07:21 | 07:27 |
| | 22:08 | 21:24 | 20:09 | 5 | 06:56 (C4) | 18:48 |
| 4 | 04:33 | 05:21 | 06:23 | 07:23 | 07:29 | 08:29 |
| | 22:07 | 21:22 | 20:06 | 18:46 | 16:29 | 15:42 |
| 5 | 04:34 | 05:23 | 06:25 | 07:25 | 07:31 | 13:51 (C13) |
| | 22:07 | 21:19 | 20:03 | 18:43 | 16:27 | 13 |
| 6 | 04:35 | 05:25 | 06:27 | 07:27 | 07:33 | 13:49 (C13) |
| | 22:06 | 21:17 | 20:01 | 18:40 | 16:25 | 19 |
| 7 | 04:36 | 05:27 | 06:29 | 07:29 | 07:36 | 13:46 (C13) |
| | 22:05 | 21:15 | 19:58 | 18:38 | 16:23 | 24 |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | 07:38 | 13:45 (C13) |
| | 22:04 | 21:13 | 19:55 | 18:35 | 16:21 | 27 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 07:40 | 13:43 (C13) |
| | 22:03 | 21:11 | 19:53 | 18:32 | 16:19 | 30 |
| 10 | 04:39 | 05:33 | 06:35 | 07:36 | 07:42 | 13:42 (C13) |
| | 22:02 | 21:08 | 19:50 | 18:30 | 16:17 | 32 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 07:44 | 13:42 (C13) |
| | 22:01 | 21:06 | 19:47 | 18:27 | 16:15 | 34 |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | 07:46 | 13:41 (C13) |
| | 22:00 | 21:04 | 19:45 | 18:25 | 16:13 | 35 |
| 13 | 04:43 | 05:39 | 06:41 | 07:42 | 07:49 | 13:41 (C13) |
| | 21:59 | 21:01 | 19:42 | 18:22 | 16:11 | 36 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 07:51 | 13:40 (C13) |
| | 21:58 | 20:59 | 19:39 | 18:19 | 16:09 | 38 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 07:53 | 13:39 (C13) |
| | 21:57 | 20:57 | 19:37 | 18:17 | 16:08 | 39 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 07:55 | 13:40 (C13) |
| | 21:55 | 20:54 | 19:34 | 18:14 | 16:06 | 39 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | 07:57 | 13:39 (C13) |
| | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 40 |
| 18 | 04:51 | 05:49 | 06:51 | 07:52 | 07:59 | 13:39 (C13) |
| | 21:52 | 20:49 | 19:29 | 18:09 | 16:02 | 40 |
| 19 | 04:52 | 05:51 | 06:53 | 07:54 | 08:01 | 13:39 (C13) |
| | 21:51 | 20:47 | 19:26 | 18:07 | 16:01 | 42 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | 08:03 | 13:39 (C13) |
| | 21:49 | 20:45 | 8 | 18:04 | 15:59 | 42 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | 08:05 | 13:39 (C13) |
| | 21:48 | 20:42 | 13 | 18:02 | 15:58 | 42 |
| 22 | 04:57 | 05:57 | 06:59 | 08:01 | 08:07 | 13:40 (C13) |
| | 21:46 | 20:40 | 16 | 17:59 | 15:56 | 42 |
| 23 | 04:59 | 05:59 | 07:01 | 08:03 | 08:09 | 13:40 (C13) |
| | 21:45 | 20:37 | 19 | 17:57 | 15:55 | 42 |
| 24 | 05:01 | 06:01 | 07:03 | 08:05 | 08:11 | 13:40 (C13) |
| | 21:43 | 20:35 | 20 | 17:55 | 15:53 | 42 |
| 25 | 05:03 | 06:03 | 07:05 | 07:07 | 08:13 | 13:40 (C13) |
| | 21:41 | 20:32 | 21 | 16:52 | 15:52 | 42 |
| 26 | 05:04 | 06:05 | 07:07 | 07:09 | 08:15 | 13:41 (C13) |
| | 21:39 | 20:29 | 22 | 16:50 | 15:51 | 41 |
| 27 | 05:06 | 06:07 | 07:09 | 07:12 | 08:17 | 13:42 (C13) |
| | 21:37 | 20:27 | 22 | 16:47 | 15:49 | 41 |
| 28 | 05:08 | 06:09 | 07:11 | 07:14 | 08:19 | 13:42 (C13) |
| | 21:36 | 20:24 | 22 | 16:45 | 15:48 | 41 |
| 29 | 05:10 | 06:11 | 07:13 | 07:16 | 08:21 | 13:43 (C13) |
| | 21:34 | 20:22 | 21 | 16:43 | 15:47 | 40 |
| 30 | 05:12 | 06:13 | 07:15 | 07:18 | 08:22 | 13:43 (C13) |
| | 21:32 | 20:19 | 20 | 16:40 | 15:46 | 40 |
| 31 | 05:14 | 06:15 | 07:17 | 07:20 | | 08:51 |
| | 21:30 | 20:17 | 17 | 16:38 | | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 221 | 28 | | 943 | 1056 |
| Sun reduction | | 0.50 | 0.43 | | 0.08 | 0.07 |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | 0.98 |
| Wind dir. red. | | 0.66 | 0.66 | | 0.66 | 0.66 |
| Total reduction | | 0.32 | 0.28 | | 0.05 | 0.05 |
| Total, real | | 71 | 8 | | 51 | 48 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vizbuli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (7)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:04 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vizuli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (74)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vuš karnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (219)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:47 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:50 | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:51 | 08:08 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:42 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:54 | 08:04 16:56 | 06:57 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:22 | 08:33 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:09 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:37 16:20 | 08:35 15:39 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 04:37 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 06:24 20:11 | 05:12 21:13 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:26 22:05 | 04:41 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:41 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:06 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:44 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:16 | 07:52 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:33 | 07:48 18:14 | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:38 16:13 | 07:40 17:20 | 06:28 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:03 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:24 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:25 | 06:01 20:30 | 04:54 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:25 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:20 18:28 | 05:59 20:32 | 04:53 21:33 | 04:24 22:09 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:58 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:56 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:28 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:50 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:09 21:33 | 06:11 20:21 | 07:13 18:58 | 07:16 16:42 | 08:20 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | 05:34 20:53 | 04:38 21:49 | 04:29 22:09 | 05:11 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:50 | | 04:36 21:51 | | 05:13 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (72)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------------|----------------|----------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 06:00 (C13) 21:53 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 05:58 (C13) 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 05:56 (C13) 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 07:29 (C15) 19:59 | 05:26 21:02 | 05:56 (C13) 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 07:26 (C15) 20:01 | 05:24 21:04 | 05:56 (C13) 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 07:24 (C15) 20:03 | 05:21 21:06 | 05:56 (C13) 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 07:21 (C15) 20:06 | 05:19 21:08 | 05:56 (C13) 22:00 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 07:18 (C15) 20:08 | 05:17 21:10 | 05:56 (C13) 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 07:16 (C15) 20:10 | 05:15 21:12 | 05:57 (C13) 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 07:13 (C14) 20:12 | 05:13 21:14 | 05:57 (C13) 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 07:10 (C14) 20:14 | 05:11 21:16 | 05:58 (C13) 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 07:08 (C14) 20:16 | 05:09 21:18 | 05:59 (C13) 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 07:06 (C14) 20:18 | 05:07 21:20 | 06:01 (C13) 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 07:05 (C14) 20:20 | 05:05 21:22 | 06:03 (C13) 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 07:04 (C14) 20:22 | 05:03 21:24 | 06:11 (C13) 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 07:03 (C14) 20:24 | 05:01 21:25 | 06:11 (C13) 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 07:02 (C14) 20:26 | 04:59 21:27 | 06:11 (C13) 22:08 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 07:01 (C14) 20:28 | 04:57 21:29 | 06:11 (C13) 22:09 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 07:02 (C14) 20:31 | 04:55 21:31 | 06:11 (C13) 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 07:01 (C14) 20:33 | 04:53 21:33 | 06:11 (C13) 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 07:01 (C14) 20:35 | 04:52 21:35 | 06:11 (C13) 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 07:02 (C14) 20:37 | 04:50 21:37 | 06:11 (C13) 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 07:01 (C14) 20:39 | 04:48 21:38 | 06:11 (C13) 22:10 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 07:02 (C14) 20:41 | 04:47 21:40 | 06:11 (C13) 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 07:03 (C14) 20:43 | 04:45 21:42 | 06:11 (C13) 22:10 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 07:03 (C14) 20:45 | 04:44 21:43 | 06:11 (C13) 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 07:04 (C14) 20:47 | 04:42 21:45 | 06:09 (C13) 22:10 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 07:07 (C14) 20:49 | 04:41 21:47 | 06:15 (C13) 22:10 |
| 29 | 08:20 16:39 | 07:11 17:47 | 06:57 18:47 | 08:09 (C14) 20:51 | 04:40 21:48 | 06:17 (C13) 22:10 |
| 30 | 08:18 16:41 | 07:09 17:49 | 06:54 18:49 | 08:21 (C14) 20:53 | 04:38 21:50 | 06:18 (C13) 22:10 |
| 31 | 08:17 16:43 | 07:08 17:51 | 06:51 18:51 | | 04:37 21:51 | 06:03 (C13) 22:09 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 636 | 47 | 266 | |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | |
| Wind dir. red. | | | 0.63 | 0.66 | 0.66 | |
| Total reduction | | | 0.25 | 0.32 | 0.37 | |
| Total, real | | | 159 | 15 | 98 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (72)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|----------------|----------------|----------------|----------------|----------------|
| 1 | 04:30 | 05:16 | 06:09 (C13) | 06:17 | 07:17 | 07:47 (C14) |
| | 22:09 | 21:28 | 16 06:25 (C13) | 20:14 | 18:54 | 26 08:13 (C15) |
| 2 | 04:31 | 05:18 | 06:08 (C13) | 06:19 | 07:19 | 07:48 (C14) |
| | 22:08 | 21:26 | 18 06:26 (C13) | 20:11 | 18:51 | 26 08:14 (C15) |
| 3 | 04:32 | 05:20 | 06:07 (C13) | 06:21 | 07:21 | 07:50 (C14) |
| | 22:08 | 21:24 | 20 06:27 (C13) | 20:09 | 18:48 | 24 08:14 (C15) |
| 4 | 04:33 | 05:22 | 06:07 (C13) | 06:23 | 07:23 | 07:52 (C14) |
| | 22:07 | 21:22 | 21 06:28 (C13) | 20:06 | 18:46 | 22 08:14 (C15) |
| 5 | 04:34 | 05:24 | 06:07 (C13) | 06:25 | 07:25 | 07:54 (C15) |
| | 22:07 | 21:20 | 21 06:28 (C13) | 20:03 | 18:43 | 19 08:13 (C15) |
| 6 | 04:35 | 05:25 | 06:05 (C13) | 06:27 | 07:28 | 07:56 (C15) |
| | 22:06 | 21:17 | 23 06:28 (C13) | 20:01 | 18:40 | 17 08:13 (C15) |
| 7 | 04:36 | 05:27 | 06:05 (C13) | 06:29 | 07:30 | 07:58 (C15) |
| | 22:05 | 21:15 | 23 06:28 (C13) | 19:58 | 18:38 | 14 08:12 (C15) |
| 8 | 04:37 | 05:29 | 06:05 (C13) | 06:31 | 07:32 | 08:00 (C15) |
| | 22:04 | 21:13 | 23 06:28 (C13) | 19:56 | 18:35 | 11 08:11 (C15) |
| 9 | 04:38 | 05:31 | 06:05 (C13) | 06:33 | 07:34 | 08:03 (C15) |
| | 22:03 | 21:11 | 23 06:28 (C13) | 19:53 | 18:33 | 7 08:10 (C15) |
| 10 | 04:40 | 05:33 | 06:06 (C13) | 06:35 | 07:36 | 08:05 (C15) |
| | 22:02 | 21:08 | 22 06:28 (C13) | 19:50 | 18:30 | 3 08:08 (C15) |
| 11 | 04:41 | 05:35 | 06:08 (C13) | 06:37 | 07:38 | 07:44 |
| | 22:01 | 21:06 | 20 06:28 (C13) | 19:47 | 18:27 | 16:15 |
| 12 | 04:42 | 05:37 | 06:09 (C13) | 06:39 | 07:40 | 07:46 |
| | 22:00 | 21:04 | 18 06:27 (C13) | 19:45 | 18:25 | 16:13 |
| 13 | 04:44 | 05:39 | 06:11 (C13) | 06:41 | 07:42 | 07:49 |
| | 21:59 | 21:02 | 15 06:26 (C13) | 19:42 | 18:22 | 16:11 |
| 14 | 04:45 | 05:41 | 06:13 (C13) | 06:43 | 08:00 (C14) | 07:44 |
| | 21:58 | 20:59 | 12 06:25 (C13) | 19:39 | 10 08:10 (C14) | 18:20 |
| 15 | 04:46 | 05:43 | 06:15 (C13) | 06:45 | 07:57 (C14) | 07:46 |
| | 21:57 | 20:57 | 9 06:24 (C13) | 19:37 | 16 08:13 (C14) | 18:17 |
| 16 | 04:48 | 05:45 | 06:17 (C13) | 06:47 | 07:54 (C14) | 07:48 |
| | 21:55 | 20:54 | 6 06:23 (C13) | 19:34 | 21 08:15 (C14) | 18:15 |
| 17 | 04:49 | 05:47 | 06:19 (C13) | 06:49 | 07:52 (C14) | 07:50 |
| | 21:54 | 20:52 | 1 06:20 (C13) | 19:31 | 25 08:17 (C14) | 18:12 |
| 18 | 04:51 | 05:49 | 06:51 | 07:51 (C14) | 07:52 | 16:04 |
| | 21:52 | 20:50 | 19:29 | 27 08:18 (C14) | 18:09 | 15:38 |
| 19 | 04:53 | 05:51 | 06:53 | 07:49 (C14) | 07:55 | 16:03 |
| | 21:51 | 20:47 | 19:26 | 29 08:18 (C14) | 18:07 | 16:01 |
| 20 | 04:54 | 05:53 | 06:55 | 07:48 (C14) | 07:57 | 16:03 |
| | 21:49 | 20:45 | 19:23 | 31 08:19 (C14) | 18:04 | 15:59 |
| 21 | 04:56 | 05:55 | 06:57 | 07:47 (C14) | 07:59 | 16:05 |
| | 21:48 | 20:42 | 19:21 | 32 08:19 (C14) | 18:02 | 15:58 |
| 22 | 04:58 | 05:57 | 06:59 | 07:47 (C14) | 08:01 | 16:01 |
| | 21:46 | 20:40 | 19:18 | 32 08:19 (C14) | 18:00 | 15:56 |
| 23 | 04:59 | 05:59 | 07:01 | 07:46 (C14) | 08:03 | 16:03 |
| | 21:45 | 20:37 | 19:15 | 33 08:19 (C14) | 17:57 | 15:55 |
| 24 | 05:01 | 06:01 | 07:03 | 07:45 (C14) | 08:05 | 16:05 |
| | 21:43 | 20:35 | 19:12 | 34 08:19 (C14) | 17:55 | 15:53 |
| 25 | 05:03 | 06:03 | 07:05 | 07:45 (C14) | 07:07 | 16:03 |
| | 21:41 | 20:32 | 19:10 | 33 08:18 (C14) | 16:52 | 15:52 |
| 26 | 05:05 | 06:05 | 07:07 | 07:45 (C14) | 07:10 | 16:05 |
| | 21:39 | 20:30 | 19:07 | 33 08:18 (C14) | 16:50 | 15:51 |
| 27 | 05:06 | 06:07 | 07:09 | 07:45 (C14) | 07:12 | 16:05 |
| | 21:38 | 20:27 | 19:04 | 32 08:17 (C14) | 16:48 | 15:50 |
| 28 | 05:08 | 06:09 | 07:11 | 07:45 (C14) | 07:14 | 16:05 |
| | 21:36 | 20:24 | 19:02 | 31 08:16 (C14) | 16:45 | 15:48 |
| 29 | 05:10 | 06:11 | 07:13 | 07:45 (C14) | 07:16 | 16:05 |
| | 21:34 | 2 06:18 (C13) | 20:22 | 18:59 | 30 08:15 (C14) | 16:43 |
| 30 | 05:12 | 06:12 (C13) | 06:13 | 07:15 | 07:46 (C14) | 07:18 |
| | 21:32 | 10 06:22 (C13) | 20:19 | 18:56 | 28 08:14 (C14) | 16:41 |
| 31 | 05:14 | 06:11 (C13) | 06:15 | | 07:20 | 16:41 |
| | 21:30 | 13 06:24 (C13) | 20:17 | | 16:38 | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 25 | 291 | 477 | 169 | | |
| Sun reduction | 0.49 | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | 0.98 | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | 0.66 | 0.66 | 0.63 | 0.62 | | |
| Total reduction | 0.32 | 0.32 | 0.26 | 0.16 | | |
| Total, real | 8 | 94 | 124 | 26 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzite - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (141)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Varkali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (123)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 06:01 19:13 | 07:03 17:55 | 08:05 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:08 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Veji - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (130)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 319 | 178 | | |
| Sun reduction | | | 0.41 | 0.50 | | |
| Oper. time red. | | | 0.98 | 0.98 | | |
| Wind dir. red. | | | 0.62 | 0.65 | | |
| Total reduction | | | 0.25 | 0.32 | | |
| Total, real | | | 80 | 57 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Veji - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (130)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:47 (C14) 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:48 (C14) 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:50 (C14) 16:32 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:52 (C14) 16:30 | 08:29 15:43 |
| 5 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:25 18:43 | 07:54 (C14) 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:56 (C14) 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:58 (C14) 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:03 (C14) 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | | 08:37 15:39 |
| 10 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | | 08:39 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | | 08:40 15:38 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | | 08:46 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 08:00 (C14) 18:02 | | 08:49 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 07:56 (C14) 18:00 | | 08:49 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 07:54 (C14) 17:57 | | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 07:52 (C14) 17:55 | | 08:50 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:51 (C14) 17:52 | | 08:50 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:50 (C14) 17:50 | | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:49 (C14) 17:48 | | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:48 (C14) 17:46 | | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:47 (C14) 17:43 | | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:47 (C14) 17:41 | | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 179 | 209 | 117 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.65 | 0.62 | 0.62 | | |
| Total reduction | | 0.32 | 0.26 | 0.16 | | |
| Total, real | | 57 | 54 | 18 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vejini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (91)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 310 | 171 | | |
| Sun reduction | | | 0.41 | 0.50 | | |
| Oper. time red. | | | 0.98 | 0.98 | | |
| Wind dir. red. | | | 0.63 | 0.65 | | |
| Total reduction | | | 0.25 | 0.32 | | |
| Total, real | | | 78 | 54 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vejini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (91)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|----------------|---------------|----------------|----------|
| 1 | 04:30 | 05:16 | 06:17 | 07:17 | 07:46 (C14) | 07:23 |
| | 22:09 | 21:28 | 20:14 | 18:54 | 23 08:09 (C14) | 16:36 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 07:48 (C14) | 07:25 |
| | 22:09 | 21:26 | 20:11 | 18:51 | 20 08:08 (C14) | 16:34 |
| 3 | 04:32 | 05:20 | 06:21 | 07:21 | 07:50 (C14) | 07:27 |
| | 22:08 | 21:24 | 20:09 | 18:48 | 16 08:06 (C14) | 16:32 |
| 4 | 04:33 | 05:22 | 06:23 | 07:23 | 07:52 (C14) | 07:29 |
| | 22:07 | 21:22 | 20:06 | 18:46 | 13 08:05 (C14) | 16:30 |
| 5 | 04:34 | 05:24 | 06:25 | 07:25 | 07:54 (C14) | 07:31 |
| | 22:07 | 21:20 | 20:04 | 18:43 | 8 08:02 (C14) | 16:27 |
| 6 | 04:35 | 05:25 | 06:27 | 07:28 | 07:56 (C14) | 07:34 |
| | 22:06 | 21:17 | 20:01 | 18:40 | 3 07:59 (C14) | 16:25 |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | | 07:36 |
| | 22:05 | 21:15 | 19:58 | 18:38 | | 16:23 |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | | 07:38 |
| | 22:04 | 21:13 | 19:56 | 18:35 | | 16:21 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | | 07:40 |
| | 22:03 | 21:11 | 19:53 | 18:33 | | 16:19 |
| 10 | 04:40 | 05:33 | 06:35 | 07:36 | | 07:42 |
| | 22:02 | 21:08 | 19:50 | 18:30 | | 16:17 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | | 07:44 |
| | 22:01 | 21:06 | 19:48 | 18:27 | | 16:15 |
| 12 | 04:42 | 05:37 | 06:39 | 07:40 | | 07:46 |
| | 22:00 | 21:04 | 19:45 | 18:25 | | 16:13 |
| 13 | 04:44 | 05:39 | 06:41 | 07:42 | | 07:49 |
| | 21:59 | 21:02 | 8 06:37 (C13) | 18:22 | | 16:11 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | | 07:51 |
| | 21:58 | 20:59 | 12 06:39 (C13) | 18:20 | | 16:10 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | | 07:53 |
| | 21:57 | 20:57 | 15 06:40 (C13) | 18:17 | | 16:08 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | | 07:55 |
| | 21:55 | 20:54 | 17 06:41 (C13) | 18:15 | | 16:06 |
| 17 | 04:49 | 05:47 | 06:49 | 07:50 | | 07:57 |
| | 21:54 | 20:52 | 19 06:42 (C13) | 18:12 | | 16:04 |
| 18 | 04:51 | 05:49 | 06:51 | 07:53 | | 07:59 |
| | 21:52 | 20:50 | 19 06:42 (C13) | 18:09 | | 16:03 |
| 19 | 04:53 | 05:51 | 06:53 | 07:55 | | 08:01 |
| | 21:51 | 20:47 | 19 06:41 (C13) | 18:07 | | 16:01 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 (C14) | | 08:03 |
| | 21:49 | 20:45 | 17 06:41 (C13) | 7 08:04 (C14) | | 15:59 |
| 21 | 04:56 | 05:55 | 06:57 | 07:53 (C14) | | 08:05 |
| | 21:48 | 20:42 | 15 06:41 (C13) | 08:07 (C14) | | 15:58 |
| 22 | 04:58 | 05:57 | 06:59 | 07:51 (C14) | | 08:07 |
| | 21:46 | 20:40 | 12 06:40 (C13) | 08:09 (C14) | | 15:56 |
| 23 | 04:59 | 05:59 | 07:01 | 07:49 (C14) | | 08:09 |
| | 21:45 | 20:37 | 10 06:40 (C13) | 08:10 (C14) | | 15:55 |
| 24 | 05:01 | 06:01 | 07:03 | 07:48 (C14) | | 08:11 |
| | 21:43 | 20:35 | 7 06:39 (C13) | 08:11 (C14) | | 15:53 |
| 25 | 05:03 | 06:03 | 07:05 | 07:47 (C14) | | 08:13 |
| | 21:41 | 20:32 | 3 06:37 (C13) | 08:11 (C14) | | 15:52 |
| 26 | 05:05 | 06:05 | 07:07 | 07:46 (C14) | | 08:15 |
| | 21:39 | 20:30 | 19:07 | 08:11 (C14) | | 15:51 |
| 27 | 05:06 | 06:07 | 07:09 | 07:45 (C14) | | 08:17 |
| | 21:38 | 20:27 | 19:04 | 08:11 (C14) | | 15:50 |
| 28 | 05:08 | 06:09 | 07:11 | 07:45 (C14) | | 08:19 |
| | 21:36 | 20:24 | 19:02 | 08:11 (C14) | | 15:48 |
| 29 | 05:10 | 06:11 | 07:13 | 07:44 (C14) | | 08:21 |
| | 21:34 | 20:22 | 18:59 | 08:10 (C14) | | 15:47 |
| 30 | 05:12 | 06:13 | 07:15 | 07:44 (C14) | | 08:22 |
| | 21:32 | 20:19 | 18:56 | 08:10 (C14) | | 15:46 |
| 31 | 05:14 | 06:15 | | 07:20 | | 08:51 |
| | 21:30 | 20:17 | | 16:38 | | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 173 | 236 | | 83 | |
| Sun reduction | | 0.50 | 0.43 | | 0.26 | |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.65 | 0.63 | | 0.63 | |
| Total reduction | | 0.32 | 0.26 | | 0.16 | |
| Total, real | | 55 | 62 | 13 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Veikalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (163)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|----|-------------|-------|----|-------------|-------|--|-------|------|--|--|
| 1 | 08:51 | | 09:30 (C14) | 08:15 | | 08:50 (C15) | 07:11 | | | 06:49 | | 07:56 (C13) | 05:33 | | 04:36 | | | |
| | 15:48 | 19 | 09:49 (C14) | 16:45 | 35 | 09:56 (C14) | 17:48 | | | 19:53 | 10 | 08:06 (C13) | 20:55 | | 21:53 | | | |
| 2 | 08:50 | | 09:30 (C14) | 08:13 | | 08:51 (C15) | 07:08 | | | 06:46 | | | 05:30 | | 04:35 | | | |
| | 15:49 | 20 | 09:50 (C14) | 16:48 | 29 | 09:54 (C14) | 17:50 | | | 19:55 | | | 20:58 | | 21:54 | | | |
| 3 | 08:50 | | 09:30 (C14) | 08:11 | | 08:52 (C15) | 07:06 | | | 06:43 | | | 05:28 | | 04:34 | | | |
| | 15:51 | 21 | 09:51 (C14) | 16:50 | 18 | 09:10 (C15) | 17:52 | | | 19:57 | | | 21:00 | | 21:55 | | | |
| 4 | 08:50 | | 09:29 (C14) | 08:09 | | 08:53 (C15) | 07:03 | | | 06:41 | | | 05:26 | | 04:33 | | | |
| | 15:52 | 22 | 09:51 (C14) | 16:52 | 17 | 09:10 (C15) | 17:54 | | | 19:59 | | | 21:02 | | 21:57 | | | |
| 5 | 08:49 | | 09:30 (C14) | 08:07 | | 08:54 (C15) | 07:01 | | | 06:38 | | | 05:23 | | 04:32 | | | |
| | 15:53 | 23 | 09:53 (C14) | 16:54 | 15 | 09:09 (C15) | 17:56 | | | 20:01 | | | 21:04 | | 21:58 | | | |
| 6 | 08:49 | | 09:30 (C14) | 08:05 | | 08:55 (C15) | 06:58 | | | 06:36 | | | 05:21 | | 04:31 | | | |
| | 15:55 | 23 | 09:53 (C14) | 16:56 | 12 | 09:07 (C15) | 17:58 | | | 20:03 | | | 21:06 | | 21:59 | | | |
| 7 | 08:48 | | 09:30 (C14) | 08:03 | | 08:58 (C15) | 06:55 | | | 06:33 | | | 05:19 | | 04:30 | | | |
| | 15:56 | 24 | 09:54 (C14) | 16:59 | 7 | 09:05 (C15) | 18:01 | | | 20:06 | | | 21:08 | | 22:00 | | | |
| 8 | 08:48 | | 09:30 (C14) | 08:01 | | | 06:53 | | | 06:30 | | | 05:17 | | 04:29 | | | |
| | 15:58 | 25 | 09:55 (C14) | 17:01 | | | 18:03 | | | 20:08 | | | 21:10 | | 22:01 | | | |
| 9 | 08:47 | | 09:30 (C14) | 07:58 | | | 06:50 | | | 06:28 | | | 05:15 | | 04:29 | | | |
| | 16:00 | 26 | 09:56 (C14) | 17:03 | | | 18:05 | | | 20:10 | | | 21:12 | | 22:02 | | | |
| 10 | 08:46 | | 09:30 (C14) | 07:56 | | | 06:47 | | | 06:25 | | | 05:13 | | 04:28 | | | |
| | 16:01 | 27 | 09:57 (C14) | 17:05 | | | 18:07 | | | 20:12 | | | 21:14 | | 22:03 | | | |
| 11 | 08:45 | | 09:30 (C14) | 07:54 | | | 06:45 | | | 06:22 | | | 05:11 | | 04:27 | | | |
| | 16:03 | 27 | 09:57 (C14) | 17:08 | | | 18:09 | | | 20:14 | | | 21:16 | | 22:04 | | | |
| 12 | 08:44 | | 09:30 (C14) | 07:52 | | | 06:42 | | | 06:20 | | | 05:09 | | 04:27 | | | |
| | 16:05 | 28 | 09:58 (C14) | 17:10 | | | 18:11 | | | 20:16 | | | 21:18 | | 22:05 | | | |
| 13 | 08:43 | | 09:30 (C14) | 07:50 | | | 06:40 | | | 06:17 | | | 05:07 | | 04:26 | | | |
| | 16:06 | 28 | 09:58 (C14) | 17:12 | | | 18:13 | | | 20:18 | | | 21:20 | | 22:06 | | | |
| 14 | 08:42 | | 09:30 (C14) | 07:47 | | | 06:37 | | 07:03 (C13) | 06:15 | | | 05:05 | | 04:26 | | | |
| | 16:08 | 29 | 09:59 (C14) | 17:14 | | | 18:15 | 7 | 07:10 (C13) | 20:20 | | | 21:22 | | 22:07 | | | |
| 15 | 08:41 | | 09:31 (C14) | 07:45 | | | 06:34 | | 07:00 (C13) | 06:12 | | | 05:03 | | 04:26 | | | |
| | 16:10 | 29 | 10:00 (C14) | 17:17 | | | 18:18 | 14 | 07:14 (C13) | 20:22 | | | 21:24 | | 22:07 | | | |
| 16 | 08:40 | | 09:30 (C14) | 07:43 | | | 06:32 | | 06:57 (C13) | 06:09 | | | 05:01 | | 04:26 | | | |
| | 16:12 | 30 | 10:00 (C14) | 17:19 | | | 18:20 | 19 | 07:16 (C13) | 20:24 | | | 21:26 | | 22:08 | | | |
| 17 | 08:39 | | 09:31 (C14) | 07:40 | | | 06:29 | | 06:54 (C13) | 06:07 | | | 04:59 | | 04:25 | | | |
| | 16:14 | 30 | 10:01 (C14) | 17:21 | | | 18:22 | 23 | 07:17 (C13) | 20:26 | | | 21:27 | | 22:08 | | | |
| 18 | 08:38 | | 09:31 (C14) | 07:38 | | | 06:26 | | 06:52 (C13) | 06:04 | | | 04:57 | | 04:25 | | | |
| | 16:16 | 30 | 10:01 (C14) | 17:23 | | | 18:24 | 25 | 07:17 (C13) | 20:28 | | | 21:29 | | 22:09 | | | |
| 19 | 08:36 | | 09:31 (C14) | 07:36 | | | 06:24 | | 06:52 (C13) | 06:02 | | | 04:55 | | 04:25 | | | |
| | 16:18 | 30 | 10:01 (C14) | 17:26 | | | 18:26 | 27 | 07:19 (C13) | 20:31 | | | 21:31 | | 22:09 | | | |
| 20 | 08:35 | | 09:32 (C14) | 07:33 | | | 06:21 | | 06:51 (C13) | 05:59 | | | 04:53 | | 04:25 | | | |
| | 16:20 | 30 | 10:02 (C14) | 17:28 | | | 18:28 | 28 | 07:19 (C13) | 20:33 | | | 21:33 | | 22:10 | | | |
| 21 | 08:33 | | 09:32 (C14) | 07:31 | | | 06:18 | | 06:50 (C13) | 05:57 | | | 04:52 | | 04:25 | | | |
| | 16:22 | 30 | 10:02 (C14) | 17:30 | | | 18:30 | 29 | 07:19 (C13) | 20:35 | | | 21:35 | | 22:10 | | | |
| 22 | 08:32 | | 09:32 (C14) | 07:28 | | | 06:16 | | 06:50 (C13) | 05:54 | | | 04:50 | | 04:26 | | | |
| | 16:24 | 30 | 10:02 (C14) | 17:32 | | | 18:32 | 29 | 07:19 (C13) | 20:37 | | | 21:37 | | 22:10 | | | |
| 23 | 08:30 | | 09:03 (C15) | 07:26 | | | 06:13 | | 06:49 (C13) | 05:52 | | | 04:48 | | 04:26 | | | |
| | 16:26 | 32 | 10:02 (C14) | 17:34 | | | 18:34 | 30 | 07:19 (C13) | 20:39 | | | 21:38 | | 22:10 | | | |
| 24 | 08:29 | | 09:02 (C15) | 07:23 | | | 06:10 | | 06:48 (C13) | 05:49 | | | 04:47 | | 04:26 | | | |
| | 16:28 | 35 | 10:03 (C14) | 17:37 | | | 18:36 | 30 | 07:18 (C13) | 20:41 | | | 21:40 | | 22:10 | | | |
| 25 | 08:27 | | 09:00 (C15) | 07:21 | | | 06:08 | | 06:49 (C13) | 05:47 | | | 04:45 | | 04:26 | | | |
| | 16:30 | 37 | 10:03 (C14) | 17:39 | | | 18:38 | 29 | 07:18 (C13) | 20:43 | | | 21:42 | | 22:10 | | | |
| 26 | 08:26 | | 08:58 (C15) | 07:18 | | | 06:05 | | 06:49 (C13) | 05:44 | | | 04:44 | | 04:27 | | | |
| | 16:32 | 38 | 10:02 (C14) | 17:41 | | | 18:41 | 28 | 07:17 (C13) | 20:45 | | | 21:43 | | 22:10 | | | |
| 27 | 08:24 | | 08:56 (C15) | 07:16 | | | 06:02 | | 06:49 (C13) | 05:42 | | | 04:42 | | 04:27 | | | |
| | 16:34 | 40 | 10:02 (C14) | 17:43 | | | 18:43 | 27 | 07:16 (C13) | 20:47 | | | 21:45 | | 22:10 | | | |
| 28 | 08:22 | | 08:54 (C15) | 07:13 | | | 05:59 | | 06:50 (C13) | 05:40 | | | 04:41 | | 04:28 | | | |
| | 16:37 | 42 | 10:02 (C14) | 17:45 | | | 18:45 | 25 | 07:15 (C13) | 20:49 | | | 21:47 | | 22:10 | | | |
| 29 | 08:20 | | 08:52 (C15) | | | | 06:57 | | 07:50 (C13) | 05:37 | | | 04:40 | | 04:29 | | | |
| | 16:39 | 42 | 10:01 (C14) | | | | 19:47 | 24 | 08:14 (C13) | 20:51 | | | 21:48 | | 22:10 | | | |
| 30 | 08:19 | | 08:51 (C15) | | | | 06:54 | | 07:51 (C13) | 05:35 | | | 04:38 | | 04:29 | | | |
| | 16:41 | 41 | 10:00 (C14) | | | | 19:49 | 20 | 08:11 (C13) | 20:53 | | | 21:50 | | 22:09 | | | |
| 31 | 08:17 | | 08:51 (C15) | | | | 06:51 | | 07:53 (C13) | | | | 04:37 | | | | | |
| | 16:43 | 39 | 09:59 (C14) | | | | 19:51 | 17 | 08:10 (C13) | | | | 21:51 | | | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | | | 426 | | | 508 | | 529 | | | |
| Total, worst case | 927 | | | 133 | | | 431 | | | 10 | | | | | | | | |
| Sun reduction | 0.13 | | | 0.20 | | | 0.41 | | | 0.50 | | | | | | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | 0.98 | | | 0.98 | | | | | | | | |
| Wind dir. red. | 0.60 | | | 0.60 | | | 0.64 | | | 0.64 | | | | | | | | |
| Total reduction | 0.08 | | | 0.12 | | | 0.25 | | | 0.31 | | | | | | | | |
| Total, real | 72 | | | 15 | | | 109 | | | 3 | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vejkalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (163)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|--------|-----------|---------|----------|----------|
| 1 | 04:30 | 05:16 | 06:17 | 07:17 | 07:23 | 08:24 |
| | 22:09 | 21:28 | 20:14 | 18:54 | 16:36 | 15:45 |
| 2 | 04:31 | 05:18 | 06:19 | 07:19 | 07:25 | 08:26 |
| | 22:09 | 21:26 | 20:11 | 18:51 | 16:34 | 15:44 |
| 3 | 04:32 | 05:20 | 06:21 | 07:21 | 07:27 | 08:28 |
| | 22:08 | 21:24 | 20:09 | 18:48 | 16:32 | 15:43 |
| 4 | 04:33 | 05:21 | 06:23 | 07:23 | 07:29 | 08:29 |
| | 22:07 | 21:22 | 20:06 | 18:46 | 16:29 | 15:42 |
| 5 | 04:34 | 05:23 | 06:25 | 07:25 | 07:31 | 08:31 |
| | 22:07 | 21:20 | 20:03 | 18:43 | 16:27 | 15:42 |
| 6 | 04:35 | 05:25 | 06:27 | 07:28 | 07:33 | 08:32 |
| | 22:06 | 21:17 | 20:01 | 18:40 | 16:25 | 15:41 |
| 7 | 04:36 | 05:27 | 06:29 | 07:30 | 07:36 | 08:34 |
| | 22:05 | 21:15 | 19:58 | 18:38 | 16:23 | 15:40 |
| 8 | 04:37 | 05:29 | 06:31 | 07:32 | 07:38 | 08:35 |
| | 22:04 | 21:13 | 19:56 | 18:35 | 16:21 | 15:40 |
| 9 | 04:38 | 05:31 | 06:33 | 07:34 | 07:40 | 08:37 |
| | 22:03 | 21:11 | 19:53 | 18:33 | 16:19 | 15:39 |
| 10 | 04:39 | 05:33 | 06:35 | 07:36 | 07:42 | 08:38 |
| | 22:02 | 21:08 | 19:50 | 18:30 | 16:17 | 15:39 |
| 11 | 04:41 | 05:35 | 06:37 | 07:38 | 07:44 | 08:39 |
| | 22:01 | 21:06 | 19:47 | 18:27 | 16:15 | 15:39 |
| 12 | 04:42 | 05:37 | 06:39 | 07:41 | 07:46 | 08:40 |
| | 22:00 | 21:04 | 19:45 | 18:25 | 16:13 | 15:38 |
| 13 | 04:43 | 05:39 | 06:41 | 07:43 | 07:49 | 08:42 |
| | 21:59 | 21:02 | 19:42 | 18:22 | 16:11 | 15:38 |
| 14 | 04:45 | 05:41 | 06:43 | 07:44 | 07:51 | 08:43 |
| | 21:58 | 20:59 | 19:39 | 18:20 | 16:09 | 15:38 |
| 15 | 04:46 | 05:43 | 06:45 | 07:46 | 07:53 | 08:44 |
| | 21:57 | 20:57 | 19:37 | 18:17 | 16:08 | 15:38 |
| 16 | 04:48 | 05:45 | 06:47 | 07:48 | 07:55 | 08:45 |
| | 21:55 | 20:54 | 19:34 | 18:14 | 16:06 | 15:38 |
| 17 | 04:49 | 05:47 | 06:49 | 07:49 | 07:57 | 08:46 |
| | 21:54 | 20:52 | 19:31 | 18:12 | 16:04 | 15:38 |
| 18 | 04:51 | 05:49 | 06:51 | 07:52 | 07:59 | 08:46 |
| | 21:52 | 20:50 | 19:29 | 18:09 | 16:02 | 15:38 |
| 19 | 04:53 | 05:51 | 06:53 | 07:55 | 08:01 | 08:47 |
| | 21:51 | 20:47 | 19:26 | 18:07 | 16:01 | 15:38 |
| 20 | 04:54 | 05:53 | 06:55 | 07:57 | 08:03 | 08:48 |
| | 21:49 | 20:45 | 19:23 | 18:04 | 15:59 | 15:39 |
| 21 | 04:56 | 05:55 | 06:57 | 07:59 | 08:05 | 08:49 |
| | 21:48 | 20:42 | 19:21 | 18:02 | 15:58 | 15:39 |
| 22 | 04:58 | 05:57 | 06:59 | 08:01 | 08:07 | 08:49 |
| | 21:46 | 20:40 | 19:18 | 18:00 | 15:56 | 15:40 |
| 23 | 04:59 | 05:59 | 07:01 | 08:03 | 08:09 | 08:50 |
| | 21:45 | 20:37 | 19:15 | 17:57 | 15:55 | 15:40 |
| 24 | 05:01 | 06:01 | 07:03 | 08:05 | 08:11 | 08:50 |
| | 21:43 | 20:35 | 19:12 | 17:55 | 15:53 | 15:41 |
| 25 | 05:03 | 06:03 | 07:05 | 08:07 | 08:13 | 08:50 |
| | 21:41 | 20:32 | 19:10 | 17:52 | 15:52 | 15:41 |
| 26 | 05:05 | 06:05 | 07:07 | 08:09 | 08:15 | 08:51 |
| | 21:39 | 20:30 | 19:07 | 17:50 | 15:51 | 15:42 |
| 27 | 05:06 | 06:07 | 07:09 | 08:11 | 08:17 | 08:51 |
| | 21:38 | 20:27 | 19:04 | 17:48 | 15:49 | 15:43 |
| 28 | 05:08 | 06:09 | 07:11 | 08:13 | 08:19 | 08:51 |
| | 21:36 | 20:24 | 19:02 | 17:46 | 15:48 | 15:44 |
| 29 | 05:10 | 06:11 | 07:13 | 08:15 | 08:21 | 08:51 |
| | 21:34 | 20:22 | 18:59 | 17:43 | 15:47 | 15:45 |
| 30 | 05:12 | 06:13 | 07:15 | 08:17 | 08:22 | 08:51 |
| | 21:32 | 20:19 | 18:56 | 17:41 | 15:46 | 15:46 |
| 31 | 05:14 | 06:15 | | 08:19 | | 08:51 |
| | 21:30 | 20:17 | | 16:38 | | 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | 446 | | 807 | 526 |
| Sun reduction | | | 0.43 | | 0.08 | 0.07 |
| Oper. time red. | | | 0.98 | | 0.98 | 0.98 |
| Wind dir. red. | | | 0.64 | | 0.60 | 0.61 |
| Total reduction | | | 0.26 | | 0.05 | 0.04 |
| Total, real | | | 117 | | 39 | 21 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vetras - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (161)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:02 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (120)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 21:00 | 04:34 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:38 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | 04:29 22:09 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | | 255 | 949 | 756 |
| Sun reduction | | | | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | | | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | | 0.66 | 0.67 | 0.67 |
| Total reduction | | | | 0.32 | 0.37 | 0.36 |
| Total, real | | | | 82 | 352 | 276 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (120)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|-------------|-------------|-------------|----------|-------------|
| 1 | 04:30 | 06:03 (C14) | 05:16 | 06:02 (C14) | 06:17 | 06:55 (C15) |
| | 22:09 | 25 | 06:28 (C14) | 21:28 | 34 | 06:36 (C14) |
| 2 | 04:31 | 06:02 (C14) | 05:18 | 06:01 (C14) | 06:19 | 07:18 (C15) |
| | 22:08 | 26 | 06:28 (C14) | 21:26 | 33 | 06:34 (C14) |
| 3 | 04:32 | 06:02 (C14) | 05:20 | 06:02 (C14) | 06:21 | 06:55 (C15) |
| | 22:08 | 26 | 06:28 (C14) | 21:24 | 32 | 06:34 (C14) |
| 4 | 04:33 | 06:02 (C14) | 05:22 | 06:03 (C14) | 06:23 | 06:55 (C15) |
| | 22:07 | 27 | 06:29 (C14) | 21:22 | 30 | 06:33 (C14) |
| 5 | 04:34 | 06:02 (C14) | 05:24 | 06:04 (C14) | 06:25 | 06:55 (C15) |
| | 22:07 | 28 | 06:30 (C14) | 21:19 | 28 | 06:32 (C14) |
| 6 | 04:35 | 06:01 (C14) | 05:25 | 06:04 (C14) | 06:27 | 06:57 (C15) |
| | 22:06 | 29 | 06:30 (C14) | 21:17 | 27 | 06:31 (C14) |
| 7 | 04:36 | 06:01 (C14) | 05:27 | 06:06 (C14) | 06:29 | 06:58 (C15) |
| | 22:05 | 30 | 06:31 (C14) | 21:15 | 23 | 06:29 (C14) |
| 8 | 04:37 | 06:01 (C14) | 05:29 | 06:08 (C14) | 06:31 | 07:00 (C15) |
| | 22:04 | 30 | 06:31 (C14) | 21:13 | 20 | 06:28 (C14) |
| 9 | 04:38 | 06:01 (C14) | 05:31 | 06:10 (C14) | 06:33 | 07:02 (C15) |
| | 22:03 | 31 | 06:32 (C14) | 21:11 | 16 | 06:26 (C14) |
| 10 | 04:40 | 06:00 (C14) | 05:33 | 06:13 (C14) | 06:35 | 07:04 (C15) |
| | 22:02 | 32 | 06:32 (C14) | 21:08 | 9 | 06:22 (C14) |
| 11 | 04:41 | 06:01 (C14) | 05:35 | 06:37 | 1 | 07:05 (C15) |
| | 22:01 | 32 | 06:33 (C14) | 21:06 | | 06:37 |
| 12 | 04:42 | 06:01 (C14) | 05:37 | 06:39 | | 07:38 |
| | 22:00 | 33 | 06:34 (C14) | 21:04 | | 07:40 |
| 13 | 04:44 | 06:00 (C14) | 05:39 | 06:41 | | 07:42 |
| | 21:59 | 34 | 06:34 (C14) | 21:02 | | 07:44 |
| 14 | 04:45 | 06:00 (C14) | 05:41 | 06:43 | | 07:46 |
| | 21:58 | 34 | 06:34 (C14) | 20:59 | | 07:48 |
| 15 | 04:46 | 06:00 (C14) | 05:43 | 06:45 | | 07:50 |
| | 21:57 | 35 | 06:35 (C14) | 20:57 | | 07:52 |
| 16 | 04:48 | 06:00 (C14) | 05:45 | 06:47 | | 07:54 |
| | 21:55 | 35 | 06:35 (C14) | 20:54 | | 07:56 |
| 17 | 04:49 | 05:59 (C14) | 05:47 | 06:49 | | 07:58 |
| | 21:54 | 36 | 06:35 (C14) | 20:52 | | 08:00 |
| 18 | 04:51 | 06:00 (C14) | 05:49 | 06:51 | | 08:02 |
| | 21:52 | 36 | 06:36 (C14) | 20:50 | | 08:04 |
| 19 | 04:53 | 05:59 (C14) | 05:51 | 06:53 | | 08:06 |
| | 21:51 | 37 | 06:36 (C14) | 20:47 | | 08:08 |
| 20 | 04:54 | 06:00 (C14) | 05:53 | 06:55 | | 08:10 |
| | 21:49 | 37 | 06:37 (C14) | 20:45 | | 08:12 |
| 21 | 04:56 | 05:59 (C14) | 05:55 | 06:57 | | 08:14 |
| | 21:48 | 37 | 06:36 (C14) | 20:42 | | 08:16 |
| 22 | 04:58 | 05:59 (C14) | 05:57 | 06:59 | | 08:18 |
| | 21:46 | 38 | 06:37 (C14) | 20:40 | | 08:20 |
| 23 | 04:59 | 05:59 (C14) | 05:59 | 07:01 | | 08:22 |
| | 21:45 | 37 | 06:36 (C14) | 20:37 | | 08:24 |
| 24 | 05:01 | 05:59 (C14) | 06:01 | 07:03 | | 08:26 |
| | 21:43 | 38 | 06:37 (C14) | 20:35 | | 08:28 |
| 25 | 05:03 | 06:00 (C14) | 06:03 | 07:05 | | 08:30 |
| | 21:41 | 37 | 06:37 (C14) | 20:32 | | 08:32 |
| 26 | 05:05 | 05:59 (C14) | 06:05 | 07:07 | | 08:34 |
| | 21:39 | 38 | 06:37 (C14) | 20:30 | 7 | 07:12 (C15) |
| 27 | 05:06 | 06:00 (C14) | 06:07 | 07:09 | | 07:14 |
| | 21:37 | 37 | 06:37 (C14) | 20:27 | 13 | 07:15 (C15) |
| 28 | 05:08 | 06:00 (C14) | 06:09 | 07:11 | | 07:16 |
| | 21:36 | 37 | 06:37 (C14) | 20:24 | 16 | 07:17 (C15) |
| 29 | 05:10 | 06:00 (C14) | 06:11 | 07:13 | | 07:18 |
| | 21:34 | 36 | 06:36 (C14) | 20:22 | 18 | 07:19 (C15) |
| 30 | 05:12 | 06:00 (C14) | 06:13 | 07:15 | | 07:20 |
| | 21:32 | 36 | 06:36 (C14) | 20:19 | 20 | 07:21 (C15) |
| 31 | 05:14 | 06:01 (C14) | 06:15 | 07:17 | | 07:22 |
| | 21:30 | 35 | 06:36 (C14) | 20:17 | 21 | 07:23 (C15) |
| Potential sun hours | 529 | | 469 | 385 | | 324 |
| Total, worst case | 1039 | | 347 | 165 | | 248 |
| Sun reduction | 0.49 | | 0.50 | 0.43 | | 216 |
| Oper. time red. | 0.98 | | 0.98 | 0.98 | | |
| Wind dir. red. | 0.67 | | 0.67 | 0.66 | | |
| Total reduction | 0.32 | | 0.32 | 0.28 | | |
| Total, real | 334 | | 112 | 45 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------------|----------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 07:21 (C15) 20:55 | 06:23 (C14) 21:52 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 07:21 (C15) 20:57 | 06:23 (C14) 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 07:22 (C15) 21:00 | 06:23 (C14) 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 07:22 (C15) 21:02 | 06:23 (C14) 21:57 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 07:22 (C15) 21:04 | 06:23 (C14) 21:58 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 07:24 (C15) 21:06 | 06:24 (C14) 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 07:26 (C15) 21:08 | 06:24 (C14) 22:00 |
| 8 | 08:47 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 07:35 (C15) 21:10 | 06:24 (C14) 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 06:24 (C14) 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 06:25 (C14) 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 06:25 (C14) 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 06:26 (C14) 22:05 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 06:27 (C14) 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 06:28 (C14) 22:07 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 06:29 (C14) 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 | 06:29 (C14) 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 06:31 (C14) 22:08 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 06:33 (C14) 22:09 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 06:35 (C14) 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 06:37 (C14) 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 06:39 (C14) 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 06:41 (C14) 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 06:43 (C14) 22:10 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 06:45 (C14) 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:38 | 05:47 20:43 | 04:45 21:42 | 06:47 (C14) 22:10 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 06:49 (C14) 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 06:51 (C14) 22:10 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 06:53 (C14) 22:10 |
| 29 | 08:20 16:39 | 07:11 17:47 | 05:57 18:47 | 05:37 20:51 | 04:40 21:48 | 06:55 (C14) 22:10 |
| 30 | 08:18 16:41 | 07:09 17:49 | 05:54 18:49 | 05:35 20:53 | 04:38 21:50 | 06:57 (C14) 22:10 |
| 31 | 08:17 16:43 | 07:08 17:51 | 05:53 18:51 | 05:34 20:54 | 04:37 21:51 | 06:59 (C14) 22:10 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | 131 | 549 | 635 | 512 |
| Sun reduction | | | 0.41 | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | | 0.98 | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | 0.65 | 0.65 | 0.65 | 0.67 |
| Total reduction | | | 0.26 | 0.32 | 0.36 | 0.36 |
| Total, real | | | 34 | 175 | 230 | 186 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|-------|----------------|-----------|----------------|----------|----------|
| 1 | 04:30 | 05:08 (C13) | 05:16 | 06:36 (C14) | 06:17 | 07:17 |
| | 22:09 | 18 05:26 (C13) | 21:28 | 33 07:09 (C14) | 20:14 | 18:54 |
| 2 | 04:31 | 05:08 (C13) | 05:18 | 06:35 (C14) | 06:19 | 07:19 |
| | 22:08 | 17 05:25 (C13) | 21:26 | 35 07:10 (C14) | 20:11 | 18:51 |
| 3 | 04:32 | 05:09 (C13) | 05:20 | 06:35 (C14) | 06:21 | 07:21 |
| | 22:08 | 16 05:25 (C13) | 21:24 | 36 07:11 (C14) | 20:09 | 18:48 |
| 4 | 04:33 | 05:10 (C13) | 05:22 | 06:35 (C14) | 06:23 | 07:23 |
| | 22:07 | 15 05:25 (C13) | 21:22 | 36 07:11 (C14) | 20:06 | 18:46 |
| 5 | 04:34 | 05:11 (C13) | 05:24 | 06:34 (C14) | 06:25 | 07:25 |
| | 22:07 | 14 05:25 (C13) | 21:19 | 38 07:12 (C14) | 20:03 | 18:43 |
| 6 | 04:35 | 05:12 (C13) | 05:25 | 06:33 (C14) | 06:27 | 07:28 |
| | 22:06 | 13 05:25 (C13) | 21:17 | 39 07:12 (C14) | 20:01 | 18:40 |
| 7 | 04:36 | 05:13 (C13) | 05:27 | 06:33 (C14) | 06:29 | 07:30 |
| | 22:05 | 12 05:23 (C13) | 21:15 | 39 07:12 (C14) | 19:58 | 18:38 |
| 8 | 04:37 | 05:14 (C13) | 05:29 | 06:33 (C14) | 06:31 | 07:32 |
| | 22:04 | 11 05:25 (C13) | 21:13 | 39 07:12 (C14) | 19:55 | 18:35 |
| 9 | 04:38 | 05:15 (C13) | 05:31 | 06:33 (C14) | 06:33 | 07:34 |
| | 22:03 | 9 05:24 (C13) | 21:11 | 40 07:13 (C14) | 19:53 | 18:33 |
| 10 | 04:40 | 05:16 (C13) | 05:33 | 06:33 (C14) | 06:35 | 07:36 |
| | 22:02 | 8 05:24 (C13) | 21:08 | 40 07:13 (C14) | 19:50 | 18:30 |
| 11 | 04:41 | 05:18 (C13) | 05:35 | 06:33 (C14) | 06:37 | 07:38 |
| | 22:01 | 6 05:24 (C13) | 21:06 | 40 07:13 (C14) | 19:47 | 18:27 |
| 12 | 04:42 | 05:19 (C13) | 05:37 | 06:32 (C14) | 06:39 | 07:39 |
| | 22:00 | 4 05:23 (C13) | 21:04 | 40 07:12 (C14) | 19:45 | 18:25 |
| 13 | 04:44 | 05:20 (C13) | 05:39 | 06:32 (C14) | 06:41 | 07:42 |
| | 21:59 | 1 05:21 (C13) | 21:02 | 40 07:12 (C14) | 19:42 | 18:22 |
| 14 | 04:45 | | 05:41 | 06:32 (C14) | 06:43 | 07:44 |
| | 21:58 | | 20:59 | 39 07:11 (C14) | 19:39 | 18:20 |
| 15 | 04:46 | | 05:43 | 06:32 (C14) | 06:45 | 07:46 |
| | 21:57 | | 20:57 | 39 07:11 (C14) | 19:37 | 18:17 |
| 16 | 04:48 | | 05:45 | 06:33 (C14) | 06:47 | 07:48 |
| | 21:55 | | 20:54 | 38 07:11 (C14) | 19:34 | 18:15 |
| 17 | 04:49 | | 05:47 | 06:33 (C14) | 06:49 | 07:50 |
| | 21:54 | | 20:52 | 37 07:10 (C14) | 19:31 | 18:12 |
| 18 | 04:51 | | 05:49 | 06:34 (C14) | 06:51 | 07:52 |
| | 21:52 | | 20:50 | 35 07:09 (C14) | 19:29 | 18:09 |
| 19 | 04:53 | | 05:51 | 06:33 (C14) | 06:53 | 07:55 |
| | 21:51 | | 20:47 | 34 07:07 (C14) | 19:26 | 18:07 |
| 20 | 04:54 | | 05:53 | 06:34 (C14) | 06:55 | 07:57 |
| | 21:49 | | 20:45 | 32 07:06 (C14) | 19:23 | 18:04 |
| 21 | 04:56 | | 05:55 | 06:35 (C14) | 06:57 | 07:59 |
| | 21:48 | | 20:42 | 30 07:05 (C14) | 19:21 | 18:02 |
| 22 | 04:58 | | 05:57 | 06:36 (C14) | 06:59 | 08:01 |
| | 21:46 | | 20:40 | 28 07:04 (C14) | 19:18 | 18:00 |
| 23 | 04:59 | 06:50 (C14) | 05:59 | 06:38 (C14) | 07:01 | 08:03 |
| | 21:45 | 4 06:54 (C14) | 20:37 | 24 07:02 (C14) | 19:15 | 17:57 |
| 24 | 05:01 | 06:46 (C14) | 06:01 | 06:40 (C14) | 07:03 | 08:05 |
| | 21:43 | 13 06:59 (C14) | 20:35 | 20 07:00 (C14) | 19:12 | 17:55 |
| 25 | 05:03 | 06:44 (C14) | 06:03 | 06:42 (C14) | 07:05 | 08:07 |
| | 21:41 | 17 07:01 (C14) | 20:32 | 15 06:57 (C14) | 19:10 | 16:52 |
| 26 | 05:05 | 06:42 (C14) | 06:05 | | 07:07 | 08:15 |
| | 21:39 | 21 07:03 (C14) | 20:30 | | 19:07 | 16:50 |
| 27 | 05:06 | 06:41 (C14) | 06:07 | | 07:09 | 08:17 |
| | 21:37 | 23 07:04 (C14) | 20:27 | | 19:04 | 16:48 |
| 28 | 05:08 | 06:40 (C14) | 06:09 | | 07:11 | 08:19 |
| | 21:36 | 26 07:06 (C14) | 20:24 | | 19:02 | 16:45 |
| 29 | 05:10 | 06:39 (C14) | 06:11 | | 07:13 | 08:21 |
| | 21:34 | 28 07:07 (C14) | 20:22 | | 18:59 | 16:43 |
| 30 | 05:12 | 06:38 (C14) | 06:13 | | 07:15 | 08:22 |
| | 21:32 | 30 07:08 (C14) | 20:19 | | 18:56 | 16:41 |
| 31 | 05:14 | 06:37 (C14) | 06:15 | | | 07:20 |
| | 21:30 | 32 07:09 (C14) | 20:17 | | | 16:38 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 338 | 866 | 264 | | | |
| Sun reduction | 0.49 | 0.50 | 0.43 | | | |
| Oper. time red. | 0.98 | 0.98 | 0.98 | | | |
| Wind dir. red. | 0.66 | 0.65 | 0.65 | | | |
| Total reduction | 0.32 | 0.32 | 0.27 | | | |
| Total, real | 107 | 275 | 72 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Viksnes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (19)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:57 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:20 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:37 22:03 | 05:31 21:11 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:07 | 06:24 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:04 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:12 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vipes skola 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (187)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June | | |
|---------------------|---------|----|-------------|----------|----|-------------|-------|-------|-------|------------|------------|-------|
| 1 | 08:51 | | 10:31 (C13) | 08:15 | | 10:52 (C13) | 07:11 | 06:49 | 05:32 | 06:00 (C1) | 04:36 | |
| | 15:48 | 43 | 11:14 (C13) | 16:45 | 20 | 11:12 (C13) | 17:48 | 19:53 | 20:55 | 2 | 06:02 (C1) | 21:53 |
| 2 | 08:50 | | 10:32 (C13) | 08:13 | | 10:56 (C13) | 07:08 | 06:46 | 05:30 | | 05:58 (C1) | 04:35 |
| | 15:49 | 43 | 11:15 (C13) | 16:47 | 13 | 11:09 (C13) | 17:50 | 19:55 | 20:57 | 6 | 06:04 (C1) | 21:54 |
| 3 | 08:50 | | 10:32 (C13) | 08:11 | | | 07:06 | 06:43 | 05:28 | | 05:56 (C1) | 04:34 |
| | 15:51 | 43 | 11:15 (C13) | 16:50 | | | 17:52 | 19:57 | 21:00 | 10 | 06:06 (C1) | 21:55 |
| 4 | 08:50 | | 10:32 (C13) | 08:09 | | | 07:03 | 06:41 | 05:26 | | 05:54 (C1) | 04:33 |
| | 15:52 | 43 | 11:15 (C13) | 16:52 | | | 17:54 | 19:59 | 21:02 | 13 | 06:07 (C1) | 21:57 |
| 5 | 08:49 | | 10:33 (C13) | 08:07 | | | 07:00 | 06:38 | 05:23 | | 05:52 (C1) | 04:32 |
| | 15:53 | 43 | 11:16 (C13) | 16:54 | | | 17:56 | 20:01 | 21:04 | 16 | 06:08 (C1) | 21:58 |
| 6 | 08:49 | | 10:33 (C13) | 08:05 | | | 06:58 | 06:35 | 05:21 | | 05:50 (C1) | 04:31 |
| | 15:55 | 44 | 11:17 (C13) | 16:56 | | | 17:58 | 20:03 | 21:06 | 18 | 06:08 (C1) | 21:59 |
| 7 | 08:48 | | 10:33 (C13) | 08:03 | | | 06:55 | 06:33 | 05:19 | | 05:48 (C1) | 04:30 |
| | 15:56 | 44 | 11:17 (C13) | 16:59 | | | 18:00 | 20:05 | 21:08 | 21 | 06:09 (C1) | 22:00 |
| 8 | 08:48 | | 10:34 (C13) | 08:01 | | | 06:53 | 06:30 | 05:17 | | 05:47 (C1) | 04:29 |
| | 15:58 | 43 | 11:17 (C13) | 17:01 | | | 18:03 | 20:08 | 21:10 | 22 | 06:09 (C1) | 22:01 |
| 9 | 08:47 | | 10:34 (C13) | 07:58 | | | 06:50 | 06:28 | 05:15 | | 05:47 (C1) | 04:28 |
| | 15:59 | 44 | 11:18 (C13) | 17:03 | | | 18:05 | 20:10 | 21:12 | 22 | 06:09 (C1) | 22:02 |
| 10 | 08:46 | | 10:34 (C13) | 07:56 | | | 06:47 | 06:25 | 05:13 | | 05:47 (C1) | 04:28 |
| | 16:01 | 44 | 11:18 (C13) | 17:05 | | | 18:07 | 20:12 | 21:14 | 22 | 06:09 (C1) | 22:03 |
| 11 | 08:45 | | 10:35 (C13) | 07:54 | | | 06:45 | 06:22 | 05:11 | | 05:47 (C1) | 04:27 |
| | 16:03 | 44 | 11:19 (C13) | 17:08 | | | 18:09 | 20:14 | 21:16 | 22 | 06:09 (C1) | 22:04 |
| 12 | 08:44 | | 10:36 (C13) | 07:52 | | | 06:42 | 06:20 | 05:08 | | 05:47 (C1) | 04:27 |
| | 16:04 | 44 | 11:20 (C13) | 17:10 | | | 18:11 | 20:16 | 21:18 | 21 | 06:08 (C1) | 22:05 |
| 13 | 08:43 | | 10:35 (C13) | 07:49 | | | 06:40 | 06:17 | 05:06 | | 05:47 (C1) | 04:26 |
| | 16:06 | 44 | 11:19 (C13) | 17:12 | | | 18:13 | 20:18 | 21:20 | 21 | 06:08 (C1) | 22:06 |
| 14 | 08:42 | | 10:36 (C13) | 07:47 | | | 06:37 | 06:14 | 05:04 | | 05:48 (C1) | 04:26 |
| | 16:08 | 44 | 11:20 (C13) | 17:14 | | | 18:15 | 20:20 | 21:22 | 20 | 06:08 (C1) | 22:07 |
| 15 | 08:41 | | 10:36 (C13) | 07:45 | | | 06:34 | 06:12 | 05:03 | | 05:48 (C1) | 04:26 |
| | 16:10 | 44 | 11:20 (C13) | 17:17 | | | 18:18 | 20:22 | 21:24 | 19 | 06:07 (C1) | 22:07 |
| 16 | 08:40 | | 10:37 (C13) | 07:43 | | | 06:32 | 06:09 | 05:01 | | 05:49 (C1) | 04:25 |
| | 16:12 | 43 | 11:20 (C13) | 17:19 | | | 18:20 | 20:24 | 21:25 | 17 | 06:06 (C1) | 22:08 |
| 17 | 08:39 | | 10:38 (C13) | 07:40 | | | 06:29 | 06:07 | 04:59 | | 05:50 (C1) | 04:25 |
| | 16:14 | 43 | 11:21 (C13) | 17:21 | | | 18:22 | 20:26 | 21:27 | 16 | 06:06 (C1) | 22:08 |
| 18 | 08:37 | | 10:38 (C13) | 07:38 | | | 06:26 | 06:04 | 04:57 | | 05:51 (C1) | 04:25 |
| | 16:16 | 43 | 11:21 (C13) | 17:23 | | | 18:24 | 20:28 | 21:29 | 14 | 06:05 (C1) | 22:09 |
| 19 | 08:36 | | 10:38 (C13) | 07:35 | | | 06:24 | 06:02 | 04:55 | | 05:52 (C1) | 04:25 |
| | 16:18 | 42 | 11:20 (C13) | 17:26 | | | 18:26 | 20:30 | 21:31 | 11 | 06:03 (C1) | 22:09 |
| 20 | 08:35 | | 10:39 (C13) | 07:33 | | | 06:21 | 05:59 | 04:53 | | 05:54 (C1) | 04:25 |
| | 16:20 | 42 | 11:21 (C13) | 17:28 | | | 18:28 | 20:33 | 21:33 | 8 | 06:02 (C1) | 22:10 |
| 21 | 08:33 | | 10:39 (C13) | 07:31 | | | 06:18 | 05:57 | 04:52 | | | 04:25 |
| | 16:22 | 42 | 11:21 (C13) | 17:30 | | | 18:30 | 20:35 | 21:35 | | | 22:10 |
| 22 | 08:32 | | 10:40 (C13) | 07:28 | | | 06:16 | 05:54 | 04:50 | | | 04:25 |
| | 16:24 | 40 | 11:20 (C13) | 17:32 | | | 18:32 | 20:37 | 21:37 | | | 22:10 |
| 23 | 08:30 | | 10:40 (C13) | 07:26 | | | 06:13 | 05:52 | 04:48 | | | 04:26 |
| | 16:26 | 40 | 11:20 (C13) | 17:34 | | | 18:34 | 20:39 | 21:38 | | | 22:10 |
| 24 | 08:29 | | 10:42 (C13) | 07:23 | | | 06:10 | 05:49 | 04:47 | | | 04:26 |
| | 16:28 | 39 | 11:21 (C13) | 17:37 | | | 18:36 | 20:41 | 21:40 | | | 22:10 |
| 25 | 08:27 | | 10:43 (C13) | 07:21 | | | 06:07 | 05:47 | 04:45 | | | 04:26 |
| | 16:30 | 37 | 11:20 (C13) | 17:39 | | | 18:38 | 20:43 | 21:42 | | | 22:10 |
| 26 | 08:26 | | 10:44 (C13) | 07:18 | | | 06:05 | 05:44 | 04:44 | | | 04:27 |
| | 16:32 | 36 | 11:20 (C13) | 17:41 | | | 18:41 | 20:45 | 21:43 | | | 22:10 |
| 27 | 08:24 | | 10:45 (C13) | 07:16 | | | 06:02 | 05:42 | 04:42 | | | 04:27 |
| | 16:34 | 34 | 11:19 (C13) | 17:43 | | | 18:43 | 20:47 | 21:45 | | | 22:10 |
| 28 | 08:22 | | 10:46 (C13) | 07:13 | | | 05:59 | 05:40 | 04:41 | | | 04:28 |
| | 16:36 | 32 | 11:18 (C13) | 17:45 | | | 18:45 | 20:49 | 21:47 | | | 22:10 |
| 29 | 08:20 | | 10:47 (C13) | | | | 06:57 | 05:37 | 04:40 | | | 04:29 |
| | 16:39 | 30 | 11:17 (C13) | | | | 19:47 | 20:51 | 21:48 | | | 22:10 |
| 30 | 08:18 | | 10:49 (C13) | | | | 06:54 | 05:35 | 04:38 | | | 04:29 |
| | 16:41 | 27 | 11:16 (C13) | | | | 19:49 | 20:53 | 21:50 | | | 22:09 |
| 31 | 08:17 | | 10:51 (C13) | | | | 06:51 | | 04:37 | | | |
| | 16:43 | 24 | 11:15 (C13) | | | | 19:51 | | 21:51 | | | |
| Potential sun hours | 235 | | | 266 | | | 366 | 426 | 508 | | 529 | |
| Total, worst case | 1248 | | | 33 | | | | | 321 | | | |
| Sun reduction | 0.13 | | | 0.20 | | | | | 0.57 | | | |
| Oper. time red. | 0.98 | | | 0.98 | | | | | 0.98 | | | |
| Wind dir. red. | 0.61 | | | 0.61 | | | | | 0.67 | | | |
| Total reduction | 0.08 | | | 0.12 | | | | | 0.36 | | | |
| Total, real | 95 | | | 4 | | | | | 115 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vipes skola 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (187)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|---------------|------------|------------|-------|---------|-------|----------------|--|----------|----------------|
| 1 | 04:30 | 05:16 | 05:57 (C1) | 06:17 | 07:17 | 07:23 | | | | 08:24 | 10:17 (C13) |
| | 22:09 | 21:28 | 22 | 06:19 (C1) | 20:14 | 18:54 | 16:36 | | | 15:45 | 44 11:01 (C13) |
| 2 | 04:31 | 05:18 | | 05:57 (C1) | 06:19 | 07:19 | 07:25 | | | 08:26 | 10:18 (C13) |
| | 22:09 | 21:26 | 22 | 06:19 (C1) | 20:11 | 18:51 | 16:34 | | | 15:44 | 43 11:01 (C13) |
| 3 | 04:32 | 05:19 | | 05:57 (C1) | 06:21 | 07:21 | 07:27 | | | 08:28 | 10:17 (C13) |
| | 22:08 | 21:24 | 22 | 06:19 (C1) | 20:09 | 18:48 | 16:32 | | | 15:43 | 44 11:01 (C13) |
| 4 | 04:33 | 05:21 | | 05:58 (C1) | 06:23 | 07:23 | 07:29 | | | 08:29 | 10:18 (C13) |
| | 22:07 | 21:22 | 21 | 06:19 (C1) | 20:06 | 18:46 | 16:29 | | | 15:42 | 43 11:01 (C13) |
| 5 | 04:34 | 05:23 | | 05:57 (C1) | 06:25 | 07:25 | 07:31 | | | 08:31 | 10:18 (C13) |
| | 22:07 | 21:20 | 21 | 06:18 (C1) | 20:03 | 18:43 | 16:27 | | | 15:42 | 44 11:02 (C13) |
| 6 | 04:35 | 05:25 | | 05:58 (C1) | 06:27 | 07:27 | 07:33 | | | 08:32 | 10:19 (C13) |
| | 22:06 | 21:17 | 20 | 06:18 (C1) | 20:01 | 18:40 | 16:25 | | | 15:41 | 44 11:03 (C13) |
| 7 | 04:36 | 05:27 | | 06:00 (C1) | 06:29 | 07:30 | 07:36 | | | 08:34 | 10:19 (C13) |
| | 22:05 | 21:15 | 17 | 06:17 (C1) | 19:58 | 18:38 | 16:23 | | | 15:40 | 43 11:02 (C13) |
| 8 | 04:37 | 05:29 | | 06:02 (C1) | 06:31 | 07:32 | 07:38 | | | 08:35 | 10:20 (C13) |
| | 22:04 | 21:13 | 15 | 06:17 (C1) | 19:55 | 18:35 | 16:21 | | | 15:40 | 43 11:03 (C13) |
| 9 | 04:38 | 05:31 | | 06:04 (C1) | 06:33 | 07:34 | 07:40 | 10:26 (C13) | | 08:37 | 10:20 (C13) |
| | 22:03 | 21:11 | 12 | 06:16 (C1) | 19:53 | 18:32 | 16:19 | 14 10:40 (C13) | | 15:39 | 43 11:03 (C13) |
| 10 | 04:39 | 05:33 | | 06:06 (C1) | 06:35 | 07:36 | 07:42 | 10:24 (C13) | | 08:38 | 10:21 (C13) |
| | 22:02 | 21:08 | 9 | 06:15 (C1) | 19:50 | 18:30 | 16:17 | 20 10:44 (C13) | | 15:39 | 43 11:04 (C13) |
| 11 | 04:41 | 05:35 | | 06:07 (C1) | 06:37 | 07:38 | 07:44 | 10:22 (C13) | | 08:39 | 10:21 (C13) |
| | 22:01 | 21:06 | 5 | 06:12 (C1) | 19:47 | 18:27 | 16:15 | 24 10:46 (C13) | | 15:38 | 43 11:04 (C13) |
| 12 | 04:42 | 05:37 | | | 06:39 | 07:40 | 07:46 | 10:20 (C13) | | 08:40 | 10:22 (C13) |
| | 22:00 | 21:04 | | | 19:45 | 18:25 | 16:13 | 27 10:47 (C13) | | 15:38 | 43 11:05 (C13) |
| 13 | 04:43 | 05:39 | | | 06:41 | 07:42 | 07:49 | 10:19 (C13) | | 08:42 | 10:23 (C13) |
| | 21:59 | 21:02 | | | 19:42 | 18:22 | 16:11 | 30 10:49 (C13) | | 15:38 | 42 11:05 (C13) |
| 14 | 04:45 | 05:41 | | | 06:43 | 07:44 | 07:51 | 10:18 (C13) | | 08:43 | 10:23 (C13) |
| | 21:58 | 20:59 | | | 19:39 | 18:19 | 16:09 | 32 10:50 (C13) | | 15:38 | 42 11:05 (C13) |
| 15 | 04:46 | 05:43 | | | 06:45 | 07:46 | 07:53 | 10:17 (C13) | | 08:44 | 10:24 (C13) |
| | 21:57 | 20:57 | | | 19:37 | 18:17 | 16:08 | 34 10:51 (C13) | | 15:38 | 41 11:05 (C13) |
| 16 | 04:48 | 05:45 | | | 06:47 | 07:48 | 07:55 | 10:17 (C13) | | 08:45 | 10:24 (C13) |
| | 21:55 | 20:54 | | | 19:34 | 18:14 | 16:06 | 36 10:53 (C13) | | 15:38 | 42 11:06 (C13) |
| 17 | 04:49 | 05:47 | | | 06:49 | 07:50 | 07:57 | 10:16 (C13) | | 08:46 | 10:25 (C13) |
| | 21:54 | 20:52 | | | 19:31 | 18:12 | 16:04 | 37 10:53 (C13) | | 15:38 | 41 11:06 (C13) |
| 18 | 04:51 | 05:49 | | | 06:51 | 07:52 | 07:59 | 10:16 (C13) | | 08:46 | 10:25 (C13) |
| | 21:52 | 20:50 | | | 19:29 | 18:09 | 16:02 | 39 10:55 (C13) | | 15:38 | 42 11:07 (C13) |
| 19 | 04:52 | 05:51 | | | 06:53 | 07:55 | 08:01 | 10:15 (C13) | | 08:47 | 10:25 (C13) |
| | 21:51 | 20:47 | | | 19:26 | 18:07 | 16:01 | 40 10:55 (C13) | | 15:38 | 42 11:07 (C13) |
| 20 | 04:54 | 05:53 | | | 06:55 | 07:57 | 08:03 | 10:15 (C13) | | 08:48 | 10:26 (C13) |
| | 21:49 | 20:45 | | | 19:23 | 18:04 | 15:59 | 41 10:56 (C13) | | 15:39 | 41 11:07 (C13) |
| 21 | 04:56 | 05:55 | | | 06:57 | 07:59 | 08:05 | 10:15 (C13) | | 08:48 | 10:27 (C13) |
| | 21:48 | 20:42 | | | 19:20 | 18:02 | 15:58 | 41 10:56 (C13) | | 15:39 | 41 11:08 (C13) |
| 22 | 04:57 | 05:57 | | | 06:59 | 08:01 | 08:07 | 10:15 (C13) | | 08:49 | 10:27 (C13) |
| | 21:46 | 20:40 | | | 19:18 | 17:59 | 15:56 | 42 10:57 (C13) | | 15:39 | 41 11:08 (C13) |
| 23 | 04:59 | 06:06 (C1) | 05:59 | | 07:01 | 08:03 | 08:09 | 10:15 (C13) | | 08:50 | 10:28 (C13) |
| | 21:45 | 4 06:10 (C1) | 20:37 | | 19:15 | 17:57 | 15:55 | 43 10:58 (C13) | | 15:40 | 41 11:09 (C13) |
| 24 | 05:01 | 06:04 (C1) | 06:01 | | 07:03 | 08:05 | 08:11 | 10:15 (C13) | | 08:50 | 10:28 (C13) |
| | 21:43 | 9 06:13 (C1) | 20:35 | | 19:12 | 17:55 | 15:53 | 43 10:58 (C13) | | 15:41 | 41 11:09 (C13) |
| 25 | 05:03 | 06:02 (C1) | 06:03 | | 07:05 | 07:07 | 08:13 | 10:15 (C13) | | 08:50 | 10:28 (C13) |
| | 21:41 | 13 06:15 (C1) | 20:32 | | 19:10 | 16:52 | 15:52 | 43 10:58 (C13) | | 15:41 | 42 11:10 (C13) |
| 26 | 05:04 | 06:01 (C1) | 06:05 | | 07:07 | 07:10 | 08:15 | 10:15 (C13) | | 08:51 | 10:29 (C13) |
| | 21:39 | 14 06:15 (C1) | 20:30 | | 19:07 | 16:50 | 15:51 | 43 10:58 (C13) | | 15:42 | 41 11:10 (C13) |
| 27 | 05:06 | 06:00 (C1) | 06:07 | | 07:09 | 07:12 | 08:17 | 10:16 (C13) | | 08:51 | 10:29 (C13) |
| | 21:38 | 17 06:17 (C1) | 20:27 | | 19:04 | 16:47 | 15:49 | 44 11:00 (C13) | | 15:43 | 42 11:11 (C13) |
| 28 | 05:08 | 05:59 (C1) | 06:09 | | 07:11 | 07:14 | 08:19 | 10:16 (C13) | | 08:51 | 10:29 (C13) |
| | 21:36 | 18 06:17 (C1) | 20:24 | | 19:02 | 16:45 | 15:48 | 44 11:00 (C13) | | 15:44 | 42 11:11 (C13) |
| 29 | 05:10 | 05:58 (C1) | 06:11 | | 07:13 | 07:16 | 08:21 | 10:16 (C13) | | 08:51 | 10:30 (C13) |
| | 21:34 | 20 06:18 (C1) | 20:22 | | 18:59 | 16:43 | 15:47 | 44 11:00 (C13) | | 15:45 | 42 11:12 (C13) |
| 30 | 05:12 | 05:58 (C1) | 06:13 | | 07:15 | 07:18 | 08:22 | 10:17 (C13) | | 08:51 | 10:31 (C13) |
| | 21:32 | 20 06:18 (C1) | 20:19 | | 18:56 | 16:40 | 15:46 | 44 11:01 (C13) | | 15:46 | 42 11:13 (C13) |
| 31 | 05:14 | 05:58 (C1) | 06:15 | | | 07:20 | | | | 08:51 | 10:31 (C13) |
| | 21:30 | 21 06:19 (C1) | 20:17 | | | 16:38 | | | | 15:47 | 42 11:13 (C13) |
| Potential sun hours | 529 | | 469 | | 385 | 324 | 247 | | | 216 | |
| Total, worst case | 136 | | 186 | | | | 805 | | | 1310 | |
| Sun reduction | 0.49 | | 0.50 | | | | 0.08 | | | 0.07 | |
| Oper. time red. | 0.98 | | 0.98 | | | | 0.98 | | | 0.98 | |
| Wind dir. red. | 0.67 | | 0.67 | | | | 0.61 | | | 0.61 | |
| Total reduction | 0.31 | | 0.31 | | | | 0.05 | | | 0.04 | |
| Total, real | 42 | | 59 | | | | 38 | | | 53 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vipmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (115)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| January | | February | | March | | April | | May | | June | |
|---------------------|----------------|------------------|---------------------|------------------|----------------|---------------------|----------------|----------------|----------------------------|----------------|----------------------------|
| 1 | 08:51 15:48 | 45 13:11 (C1) | 10:28 (C4) 16:45 | 30 09:29 (C2) | 08:15 17:47 | 08:59 (C2) 17:47 | 06:49 19:53 | 05:32 20:55 | 07:22 (C17) 08:44 (C17) | 04:36 21:53 | 07:36 (C17) 08:25 (C17) |
| 2 | 08:50 15:49 | 43 13:11 (C1) | 10:29 (C4) 16:47 | 30 09:29 (C2) | 08:13 17:50 | 08:59 (C2) 17:50 | 06:46 19:55 | 05:30 20:57 | 07:22 (C17) 08:44 (C17) | 04:34 21:54 | 07:36 (C17) 08:24 (C17) |
| 3 | 08:50 15:50 | 42 13:11 (C1) | 10:30 (C4) 16:49 | 31 09:30 (C2) | 08:11 17:52 | 08:59 (C2) 17:52 | 06:43 19:57 | 05:28 20:59 | 07:22 (C17) 08:44 (C17) | 04:33 21:55 | 07:37 (C17) 08:24 (C17) |
| 4 | 08:50 15:52 | 38 13:11 (C1) | 10:31 (C4) 16:52 | 31 09:30 (C2) | 08:09 17:54 | 08:59 (C2) 17:54 | 06:41 19:59 | 05:25 21:02 | 07:22 (C17) 08:44 (C17) | 04:32 21:57 | 07:38 (C17) 08:23 (C17) |
| 5 | 08:49 15:53 | 33 13:12 (C1) | 10:35 (C4) 16:54 | 31 09:31 (C2) | 08:07 17:56 | 09:00 (C2) 17:56 | 06:38 20:01 | 05:23 21:04 | 07:23 (C17) 08:43 (C17) | 04:31 21:58 | 07:39 (C17) 08:23 (C17) |
| 6 | 08:49 15:55 | 29 13:11 (C1) | 12:42 (C1) 16:56 | 31 09:30 (C2) | 08:05 17:58 | 08:59 (C2) 17:58 | 06:35 20:03 | 05:21 21:06 | 07:23 (C17) 08:43 (C17) | 04:31 21:59 | 07:40 (C17) 08:22 (C17) |
| 7 | 08:48 15:56 | 28 13:11 (C1) | 12:43 (C1) 16:58 | 30 09:30 (C2) | 08:03 18:00 | 09:00 (C2) 18:00 | 06:33 20:05 | 05:19 21:08 | 07:23 (C17) 08:42 (C17) | 04:30 22:00 | 07:40 (C17) 08:21 (C17) |
| 8 | 08:48 15:58 | 27 13:11 (C1) | 12:44 (C1) 17:01 | 30 09:30 (C2) | 08:00 18:02 | 09:00 (C2) 18:02 | 06:30 20:07 | 05:17 21:10 | 07:23 (C17) 08:42 (C17) | 04:29 22:01 | 07:42 (C17) 08:21 (C17) |
| 9 | 08:47 15:59 | 26 13:11 (C1) | 12:45 (C1) 17:03 | 29 09:29 (C2) | 07:58 18:05 | 09:00 (C2) 18:05 | 06:27 20:10 | 05:14 21:12 | 07:23 (C17) 08:41 (C17) | 04:28 22:02 | 07:42 (C17) 08:20 (C17) |
| 10 | 08:46 16:01 | 25 13:11 (C1) | 12:46 (C1) 17:05 | 28 09:29 (C2) | 07:56 18:07 | 09:01 (C2) 18:07 | 06:25 20:12 | 05:12 21:14 | 07:23 (C17) 08:40 (C17) | 04:28 22:03 | 07:43 (C17) 08:20 (C17) |
| 11 | 08:45 16:03 | 23 13:10 (C1) | 12:47 (C1) 17:07 | 26 09:29 (C2) | 07:54 18:09 | 09:03 (C2) 18:09 | 06:22 20:14 | 05:10 21:16 | 07:23 (C17) 08:40 (C17) | 04:27 22:04 | 07:43 (C17) 08:19 (C17) |
| 12 | 08:44 16:04 | 21 13:10 (C1) | 12:49 (C1) 17:10 | 24 09:27 (C2) | 07:52 18:11 | 09:03 (C2) 18:11 | 06:20 20:16 | 05:08 21:18 | 07:23 (C17) 08:39 (C17) | 04:27 22:05 | 07:44 (C17) 08:19 (C17) |
| 13 | 08:43 16:06 | 19 13:09 (C1) | 12:50 (C1) 17:12 | 21 09:26 (C2) | 07:49 18:13 | 09:05 (C2) 18:13 | 06:17 20:18 | 05:06 21:20 | 07:24 (C17) 08:38 (C17) | 04:26 22:06 | 07:45 (C17) 08:19 (C17) |
| 14 | 08:42 16:08 | 16 13:08 (C1) | 12:52 (C1) 17:14 | 18 09:24 (C2) | 07:47 18:15 | 09:06 (C2) 18:15 | 06:14 20:20 | 05:04 21:22 | 07:24 (C17) 08:37 (C17) | 04:26 22:07 | 07:45 (C17) 08:18 (C17) |
| 15 | 08:41 16:10 | 12 13:07 (C1) | 12:55 (C1) 17:16 | 14 09:22 (C2) | 07:45 18:17 | 09:08 (C2) 18:17 | 06:12 20:22 | 05:02 21:24 | 07:25 (C17) 08:37 (C17) | 04:25 22:07 | 07:46 (C17) 08:17 (C17) |
| 16 | 08:40 16:12 | 3 13:02 (C1) | 12:59 (C1) 17:19 | 3 09:16 (C2) | 07:43 18:19 | 09:13 (C2) 18:19 | 06:09 20:24 | 05:00 21:25 | 07:25 (C17) 08:36 (C17) | 04:25 22:08 | 07:47 (C17) 08:17 (C17) |
| 17 | 08:39 16:13 | | 07:40 17:21 | | 06:29 18:22 | 09:16 (C2) 18:22 | 06:07 20:26 | 04:59 21:27 | 07:25 (C17) 08:35 (C17) | 04:25 22:08 | 07:47 (C17) 08:17 (C17) |
| 18 | 08:37 16:15 | | 07:38 17:23 | | 06:26 18:24 | 09:16 (C2) 18:24 | 06:04 20:28 | 04:57 21:29 | 07:26 (C17) 08:35 (C17) | 04:25 22:09 | 07:48 (C17) 08:17 (C17) |
| 19 | 08:36 16:17 | | 07:35 17:25 | | 06:23 18:26 | 09:16 (C2) 18:26 | 06:02 20:30 | 04:55 21:31 | 07:26 (C17) 08:34 (C17) | 04:25 22:09 | 07:48 (C17) 08:17 (C17) |
| 20 | 08:35 16:19 | | 07:33 17:28 | | 06:21 18:28 | 09:16 (C2) 18:28 | 05:59 20:32 | 04:53 21:33 | 07:27 (C17) 08:34 (C17) | 04:25 22:10 | 07:48 (C17) 08:17 (C17) |
| 21 | 08:33 16:21 | | 07:31 17:30 | | 06:18 18:30 | 09:16 (C2) 18:30 | 05:56 20:35 | 04:51 21:35 | 07:28 (C17) 08:33 (C17) | 04:25 22:10 | 07:48 (C17) 08:17 (C17) |
| 22 | 08:32 16:23 | 7 09:08 (C2) | 07:28 17:32 | | 06:15 18:32 | 09:16 (C2) 18:32 | 05:54 20:37 | 04:50 21:36 | 07:29 (C17) 08:33 (C17) | 04:25 22:10 | 07:49 (C17) 08:18 (C17) |
| 23 | 08:30 16:26 | 13 09:18 (C2) | 07:26 17:34 | | 06:13 18:34 | 09:16 (C2) 18:34 | 05:52 20:39 | 04:48 21:38 | 07:29 (C17) 08:31 (C17) | 04:25 22:10 | 07:49 (C17) 08:18 (C17) |
| 24 | 08:29 16:28 | 16 09:21 (C2) | 07:23 17:36 | | 06:10 18:36 | 09:16 (C2) 18:36 | 05:49 20:41 | 04:46 21:40 | 07:30 (C17) 08:31 (C17) | 04:26 22:10 | 07:49 (C17) 08:18 (C17) |
| 25 | 08:27 16:30 | 20 09:23 (C2) | 07:21 17:39 | | 06:07 18:38 | 09:16 (C2) 18:38 | 05:47 20:43 | 04:45 21:42 | 07:31 (C17) 08:30 (C17) | 04:26 22:10 | 07:50 (C17) 08:19 (C17) |
| 26 | 08:25 16:32 | 22 09:24 (C2) | 07:18 17:41 | | 06:05 18:40 | 09:16 (C2) 18:40 | 05:44 20:45 | 04:43 21:43 | 07:31 (C17) 08:29 (C17) | 04:27 22:10 | 07:49 (C17) 08:19 (C17) |
| 27 | 08:24 16:34 | 23 09:25 (C2) | 07:16 17:43 | | 06:02 18:42 | 09:16 (C2) 18:42 | 05:42 20:47 | 04:42 21:45 | 07:32 (C17) 08:28 (C17) | 04:27 22:10 | 07:49 (C17) 08:20 (C17) |
| 28 | 08:22 16:36 | 26 09:27 (C2) | 07:13 17:45 | | 05:59 18:45 | 09:16 (C2) 18:45 | 05:39 20:49 | 04:41 21:47 | 07:32 (C17) 08:28 (C17) | 04:28 22:10 | 07:49 (C17) 08:21 (C17) |
| 29 | 08:20 16:38 | 27 09:27 (C2) | | | 05:57 19:47 | 09:16 (C2) 19:47 | 05:37 20:51 | 04:39 21:48 | 07:33 (C17) 08:27 (C17) | 04:28 22:10 | 07:49 (C17) 08:22 (C17) |
| 30 | 08:18 16:41 | 28 09:28 (C2) | | | 05:54 19:49 | 09:16 (C2) 19:49 | 05:35 20:53 | 04:38 21:50 | 07:34 (C17) 08:27 (C17) | 04:29 22:09 | 07:48 (C17) 08:22 (C17) |
| 31 | 08:17 16:43 | 29 09:29 (C2) | | | 05:51 19:51 | 09:16 (C2) 19:51 | | 04:37 21:51 | 07:35 (C17) 08:26 (C17) | | |
| Potential sun hours | 235 | | 266 | | 366 | | 426 | 508 | | 529 | |
| Total, worst case | 641 | | 407 | | | | 1953 | 2157 | | 1051 | |
| Sun reduction | 0.13 | | 0.20 | | | | 0.50 | 0.57 | | 0.56 | |
| Oper. time red. | 0.98 | | 0.98 | | | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | 0.62 | | 0.59 | | | | 0.65 | 0.65 | | 0.65 | |
| Total reduction | 0.08 | | 0.11 | | | | 0.32 | 0.36 | | 0.35 | |
| Total, real | 51 | | 47 | | | | 616 | 773 | | 370 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Vipmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (115)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| July | | August | | September | | October | | November | | December | |
|---------------------|-------|-------------|-------------|-------------|-------|-------------|-------|----------|-------------|----------|------------|
| 1 | 04:30 | 07:48 (C17) | 05:15 | 07:34 (C17) | 06:17 | 07:36 (C17) | 07:17 | 07:22 | 08:31 (C2) | 08:24 | 12:29 (C1) |
| 2 | 22:09 | 35 | 08:23 (C17) | 21:28 | 76 | 08:50 (C17) | 20:14 | 64 | 08:40 (C17) | 18:53 | 15:45 |
| 3 | 04:31 | 07:48 (C17) | 05:17 | 07:34 (C17) | 06:19 | 07:37 (C17) | 07:19 | 07:25 | 08:59 (C2) | 15:45 | 24 |
| 4 | 22:09 | 36 | 08:24 (C17) | 21:26 | 76 | 08:50 (C17) | 20:11 | 62 | 08:39 (C17) | 18:51 | 15:44 |
| 5 | 04:31 | 07:47 (C17) | 05:19 | 07:33 (C17) | 06:21 | 07:38 (C17) | 07:21 | 07:27 | 08:30 (C2) | 08:28 | 12:54 (C1) |
| 6 | 22:08 | 38 | 08:25 (C17) | 21:24 | 78 | 08:51 (C17) | 20:09 | 59 | 08:37 (C17) | 18:48 | 15:43 |
| 7 | 04:32 | 07:47 (C17) | 05:21 | 07:32 (C17) | 06:23 | 07:38 (C17) | 07:23 | 07:29 | 08:29 (C2) | 08:29 | 12:54 (C1) |
| 8 | 22:07 | 39 | 08:26 (C17) | 21:22 | 79 | 08:51 (C17) | 20:06 | 56 | 08:34 (C17) | 18:45 | 15:42 |
| 9 | 04:33 | 07:47 (C17) | 05:23 | 07:32 (C17) | 06:25 | 07:40 (C17) | 07:25 | 07:31 | 08:29 (C2) | 08:31 | 12:55 (C1) |
| 10 | 22:07 | 40 | 08:27 (C17) | 21:19 | 79 | 08:51 (C17) | 20:03 | 52 | 08:32 (C17) | 18:43 | 15:41 |
| 11 | 04:34 | 07:46 (C17) | 05:25 | 07:32 (C17) | 06:27 | 07:42 (C17) | 07:27 | 07:33 | 08:29 (C2) | 08:32 | 12:56 (C1) |
| 12 | 22:06 | 42 | 08:28 (C17) | 21:17 | 80 | 08:52 (C17) | 20:01 | 48 | 08:30 (C17) | 18:40 | 15:41 |
| 13 | 04:35 | 07:46 (C17) | 05:27 | 07:32 (C17) | 06:29 | 07:44 (C17) | 07:29 | 07:36 | 08:29 (C2) | 08:34 | 12:57 (C1) |
| 14 | 22:05 | 43 | 08:29 (C17) | 21:15 | 80 | 08:52 (C17) | 19:58 | 43 | 08:27 (C17) | 18:38 | 15:40 |
| 15 | 04:37 | 07:45 (C17) | 05:29 | 07:32 (C17) | 06:31 | 07:46 (C17) | 07:31 | 07:38 | 08:30 (C2) | 08:35 | 12:58 (C1) |
| 16 | 22:04 | 45 | 08:30 (C17) | 21:13 | 81 | 08:53 (C17) | 19:55 | 38 | 08:24 (C17) | 18:35 | 15:39 |
| 17 | 04:38 | 07:45 (C17) | 05:31 | 07:32 (C17) | 06:33 | 07:49 (C17) | 07:34 | 07:40 | 08:30 (C2) | 08:37 | 12:59 (C1) |
| 18 | 22:03 | 46 | 08:31 (C17) | 21:11 | 81 | 08:53 (C17) | 19:53 | 32 | 08:21 (C17) | 18:32 | 15:38 |
| 19 | 04:39 | 07:44 (C17) | 05:33 | 07:31 (C17) | 06:35 | 07:53 (C17) | 07:36 | 07:42 | 08:30 (C2) | 08:38 | 12:59 (C1) |
| 20 | 22:02 | 47 | 08:31 (C17) | 21:08 | 81 | 08:52 (C17) | 19:50 | 23 | 08:16 (C17) | 18:30 | 15:39 |
| 21 | 04:40 | 07:44 (C17) | 05:35 | 07:31 (C17) | 06:37 | 08:01 (C17) | 07:38 | 07:44 | 08:31 (C2) | 08:39 | 13:00 (C1) |
| 22 | 22:01 | 48 | 08:32 (C17) | 21:06 | 82 | 08:53 (C17) | 19:47 | 6 | 08:07 (C17) | 18:27 | 15:38 |
| 23 | 04:42 | 07:43 (C17) | 05:37 | 07:31 (C17) | 06:39 | 07:40 | 07:40 | 07:46 | 08:31 (C2) | 08:40 | 13:01 (C1) |
| 24 | 22:00 | 50 | 08:33 (C17) | 21:04 | 82 | 08:53 (C17) | 19:45 | 18:24 | 08:59 (C2) | 15:38 | 15:38 |
| 25 | 04:43 | 07:43 (C17) | 05:39 | 07:31 (C17) | 06:41 | 07:42 | 07:42 | 07:49 | 08:32 (C2) | 08:42 | 13:02 (C1) |
| 26 | 21:59 | 52 | 08:35 (C17) | 21:01 | 82 | 08:53 (C17) | 19:42 | 18:22 | 08:59 (C2) | 15:38 | 15:38 |
| 27 | 04:45 | 07:42 (C17) | 05:41 | 07:31 (C17) | 06:43 | 07:44 | 07:44 | 07:51 | 08:33 (C2) | 08:43 | 13:03 (C1) |
| 28 | 21:58 | 53 | 08:35 (C17) | 20:59 | 82 | 08:53 (C17) | 19:39 | 18:19 | 08:58 (C2) | 15:38 | 15:38 |
| 29 | 04:46 | 07:41 (C17) | 05:43 | 07:31 (C17) | 06:45 | 07:46 | 07:46 | 07:53 | 08:33 (C2) | 08:44 | 13:03 (C1) |
| 30 | 21:57 | 55 | 08:36 (C17) | 20:57 | 82 | 08:53 (C17) | 19:37 | 18:17 | 08:57 (C2) | 15:38 | 15:38 |
| 31 | 04:47 | 07:42 (C17) | 05:45 | 07:30 (C17) | 06:47 | 07:48 | 07:48 | 07:55 | 08:35 (C2) | 08:45 | 13:04 (C1) |
| 32 | 21:55 | 56 | 08:38 (C17) | 20:54 | 82 | 08:52 (C17) | 19:34 | 18:14 | 08:57 (C2) | 15:38 | 15:38 |
| 33 | 04:49 | 07:41 (C17) | 05:47 | 07:30 (C17) | 06:49 | 07:50 | 07:50 | 07:57 | 08:36 (C2) | 08:46 | 13:04 (C1) |
| 34 | 21:54 | 57 | 08:38 (C17) | 20:52 | 82 | 08:52 (C17) | 19:31 | 18:12 | 08:56 (C2) | 15:38 | 15:38 |
| 35 | 04:51 | 07:40 (C17) | 05:49 | 07:30 (C17) | 06:51 | 07:52 | 07:52 | 07:59 | 08:39 (C2) | 08:46 | 13:05 (C1) |
| 36 | 21:52 | 59 | 08:39 (C17) | 20:49 | 82 | 08:52 (C17) | 19:28 | 18:09 | 08:55 (C2) | 15:38 | 15:38 |
| 37 | 04:52 | 07:40 (C17) | 05:51 | 07:30 (C17) | 06:53 | 07:54 | 07:54 | 08:01 | 08:40 (C2) | 08:47 | 13:05 (C1) |
| 38 | 21:51 | 60 | 08:40 (C17) | 20:47 | 81 | 08:51 (C17) | 19:26 | 18:07 | 08:53 (C2) | 15:38 | 15:38 |
| 39 | 04:54 | 07:39 (C17) | 05:53 | 07:30 (C17) | 06:55 | 07:57 | 07:57 | 08:03 | 08:43 (C2) | 08:48 | 13:06 (C1) |
| 40 | 21:49 | 62 | 08:41 (C17) | 20:45 | 81 | 08:51 (C17) | 19:23 | 18:04 | 08:50 (C2) | 15:38 | 15:38 |
| 41 | 04:56 | 07:39 (C17) | 05:55 | 07:31 (C17) | 06:57 | 07:59 | 07:59 | 08:05 | 08:50 (C2) | 15:38 | 15:38 |
| 42 | 21:48 | 63 | 08:42 (C17) | 20:42 | 80 | 08:51 (C17) | 19:20 | 18:02 | 08:51 (C2) | 15:39 | 15:39 |
| 43 | 04:57 | 07:39 (C17) | 05:57 | 07:31 (C17) | 06:59 | 08:01 | 08:01 | 08:07 | 08:52 (C2) | 15:39 | 15:39 |
| 44 | 21:46 | 64 | 08:43 (C17) | 20:40 | 79 | 08:50 (C17) | 19:18 | 17:59 | 08:53 (C2) | 15:39 | 15:39 |
| 45 | 04:59 | 07:38 (C17) | 05:59 | 07:31 (C17) | 07:01 | 08:03 | 08:03 | 08:09 | 08:54 (C2) | 15:40 | 15:40 |
| 46 | 21:45 | 65 | 08:43 (C17) | 20:37 | 79 | 08:50 (C17) | 19:15 | 17:57 | 08:55 (C2) | 15:40 | 15:40 |
| 47 | 05:01 | 07:38 (C17) | 06:01 | 07:32 (C17) | 07:03 | 08:05 | 08:05 | 08:11 | 08:56 (C2) | 15:41 | 15:41 |
| 48 | 21:43 | 67 | 08:45 (C17) | 20:35 | 77 | 08:49 (C17) | 19:12 | 17:54 | 08:57 (C2) | 15:41 | 15:41 |
| 49 | 05:02 | 07:36 (C17) | 06:03 | 07:31 (C17) | 07:05 | 07:07 | 07:07 | 07:13 | 08:58 (C2) | 15:42 | 15:42 |
| 50 | 21:41 | 69 | 08:45 (C17) | 20:32 | 77 | 08:48 (C17) | 19:10 | 16:52 | 08:59 (C2) | 15:42 | 15:42 |
| 51 | 05:04 | 07:36 (C17) | 06:05 | 07:31 (C17) | 07:07 | 07:09 | 07:09 | 07:15 | 08:59 (C2) | 15:43 | 15:43 |
| 52 | 21:39 | 70 | 08:46 (C17) | 20:29 | 76 | 08:47 (C17) | 19:07 | 16:50 | 08:49 (C2) | 15:43 | 15:43 |
| 53 | 05:06 | 07:36 (C17) | 06:07 | 07:32 (C17) | 07:09 | 07:12 | 07:12 | 07:18 | 08:37 (C2) | 15:44 | 15:44 |
| 54 | 21:38 | 71 | 08:47 (C17) | 20:27 | 74 | 08:46 (C17) | 19:04 | 16:47 | 08:52 (C2) | 15:44 | 15:44 |
| 55 | 05:08 | 07:35 (C17) | 06:09 | 07:33 (C17) | 07:11 | 07:14 | 07:14 | 07:20 | 08:35 (C2) | 15:45 | 15:45 |
| 56 | 21:36 | 72 | 08:47 (C17) | 20:24 | 72 | 08:45 (C17) | 19:01 | 16:45 | 08:54 (C2) | 15:45 | 15:45 |
| 57 | 05:10 | 07:35 (C17) | 06:11 | 07:33 (C17) | 07:13 | 07:16 | 07:16 | 07:22 | 08:34 (C2) | 15:46 | 15:46 |
| 58 | 21:34 | 73 | 08:48 (C17) | 20:22 | 71 | 08:44 (C17) | 18:59 | 16:43 | 08:56 (C2) | 15:47 | 15:47 |
| 59 | 05:12 | 07:35 (C17) | 06:13 | 07:34 (C17) | 07:15 | 07:18 | 07:18 | 07:24 | 08:32 (C2) | 15:48 | 15:48 |
| 60 | 21:32 | 74 | 08:49 (C17) | 20:19 | 69 | 08:43 (C17) | 18:56 | 16:40 | 08:57 (C2) | 15:48 | 15:48 |
| 61 | 05:14 | 07:34 (C17) | 06:15 | 07:35 (C17) | 07:17 | 07:20 | 07:20 | 07:26 | 08:31 (C2) | 15:49 | 15:49 |
| 62 | 21:30 | 75 | 08:49 (C17) | 20:17 | 66 | 08:41 (C17) | 18:54 | 16:38 | 08:57 (C2) | 15:49 | 15:49 |
| Potential sun hours | 529 | | 469 | | 385 | | 324 | | 247 | | 216 |
| Total, worst case | 1726 | | 2429 | | 483 | | 115 | | 583 | | 1369 |
| Sun reduction | 0.49 | | 0.50 | | 0.43 | | 0.26 | | 0.08 | | 0.07 |
| Oper. time red. | 0.98 | | 0.98 | | 0.98 | | 0.98 | | 0.98 | | 0.98 |
| Wind dir. red. | 0.65 | | 0.65 | | 0.65 | | 0.59 | | 0.59 | | 0.63 |
| Total reduction | 0.31 | | 0.31 | | 0.27 | | 0.15 | | 0.05 | | 0.04 |
| Total, real | 537 | | 763 | | 130 | | 17 | | 28 | | 59 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Zalumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (178)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:56 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 04:26 22:06 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:47 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:29 | 07:52 18:09 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:38 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Zemturi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (39)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:21 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:23 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:25 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:02 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Zemites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (194)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:33 | 08:25 15:44 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:33 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:38 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ziedini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (111)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------------|-------------------------------------|-------------------------|-------------------------|----------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|
| 1 | 08:51 15:48 31 | 09:53 (C13) 10:24 (C13) 16:45 | 08:15 07:11 17:48 | 06:49 19:53 20:55 | 05:33 20:55 | 04:36 21:53 22:09 | 04:30 21:53 22:09 | 05:16 21:28 20:14 | 06:17 20:14 18:54 | 07:17 18:54 16:36 | 07:23 15:45 10:12 (C13) | 08:24 15:45 10:12 (C13) |
| 2 | 08:51 15:49 31 | 09:54 (C13) 10:25 (C13) 16:47 | 08:13 07:08 17:50 | 06:46 19:55 20:58 | 05:30 20:58 | 04:35 21:54 22:09 | 04:31 21:54 22:09 | 05:18 21:26 20:11 | 06:19 20:11 18:51 | 07:19 18:51 16:34 | 07:25 15:44 10:12 (C13) | 08:26 15:44 10:12 (C13) |
| 3 | 08:50 15:51 31 | 09:54 (C13) 10:25 (C13) 16:50 | 08:11 07:06 17:52 | 06:43 19:57 21:00 | 05:28 21:00 | 04:34 21:55 22:08 | 04:32 21:55 22:08 | 05:19 21:24 20:09 | 06:21 20:09 18:48 | 07:21 18:48 16:32 | 07:27 15:43 10:13 (C13) | 08:28 15:43 10:13 (C13) |
| 4 | 08:50 15:52 31 | 09:54 (C13) 10:25 (C13) 16:52 | 08:09 07:03 17:54 | 06:41 19:59 21:02 | 05:26 21:02 | 04:33 21:57 22:07 | 04:33 21:57 22:07 | 05:21 21:22 20:06 | 06:23 20:06 18:46 | 07:23 18:46 16:29 | 07:29 15:42 10:12 (C13) | 08:29 15:42 10:12 (C13) |
| 5 | 08:49 15:53 32 | 09:55 (C13) 10:27 (C13) 16:54 | 08:07 07:01 17:56 | 06:38 20:01 21:04 | 05:23 21:04 | 04:32 21:58 22:07 | 04:34 21:58 22:07 | 05:23 21:20 20:03 | 06:25 20:03 18:43 | 07:25 18:43 16:27 | 07:31 15:42 10:12 (C13) | 08:31 15:42 10:12 (C13) |
| 6 | 08:49 15:55 32 | 09:55 (C13) 10:27 (C13) 16:56 | 08:05 07:58 17:58 | 06:35 20:03 21:06 | 05:21 21:06 | 04:31 21:59 22:06 | 04:35 21:59 22:06 | 05:25 21:17 20:01 | 06:27 20:01 18:40 | 07:27 18:40 16:25 | 07:33 15:41 10:13 (C13) | 08:32 15:41 10:13 (C13) |
| 7 | 08:48 15:56 32 | 09:55 (C13) 10:27 (C13) 16:59 | 08:03 07:51 18:01 | 06:33 20:05 21:08 | 05:19 21:08 | 04:30 22:00 22:05 | 04:36 22:05 21:15 | 05:27 21:15 19:58 | 06:29 20:01 18:38 | 07:30 18:38 16:23 | 07:36 15:40 10:13 (C13) | 08:34 15:40 10:13 (C13) |
| 8 | 08:48 15:58 33 | 09:55 (C13) 10:28 (C13) 17:01 | 08:01 07:43 18:03 | 06:30 20:08 21:10 | 05:17 21:10 | 04:29 22:01 22:04 | 04:37 22:04 21:13 | 05:29 21:13 19:55 | 06:31 20:01 18:35 | 07:32 18:35 16:21 | 07:38 15:40 10:13 (C13) | 08:35 15:40 10:13 (C13) |
| 9 | 08:47 15:59 32 | 09:56 (C13) 10:28 (C13) 17:03 | 07:58 07:40 18:05 | 06:28 20:10 21:12 | 05:15 21:12 | 04:28 22:02 22:03 | 04:38 22:03 21:11 | 05:31 21:11 19:53 | 06:33 20:01 18:32 | 07:34 18:32 16:19 | 07:40 15:39 10:13 (C13) | 08:37 15:39 10:13 (C13) |
| 10 | 08:46 16:01 33 | 09:56 (C13) 10:29 (C13) 17:05 | 07:56 07:37 18:07 | 06:25 20:12 21:14 | 05:13 21:14 | 04:28 22:03 22:02 | 04:39 22:02 21:08 | 05:33 21:08 19:50 | 06:35 20:01 18:30 | 07:36 18:30 16:17 | 07:42 15:39 10:14 (C13) | 08:38 15:39 10:14 (C13) |
| 11 | 08:45 16:03 33 | 09:57 (C13) 10:30 (C13) 17:08 | 07:54 07:29 18:09 | 06:22 20:14 21:16 | 05:11 21:16 | 04:27 22:04 22:01 | 04:41 22:01 21:06 | 05:35 21:06 19:47 | 06:37 20:01 18:27 | 07:38 18:27 16:15 | 07:44 15:38 10:14 (C13) | 08:39 15:38 10:14 (C13) |
| 12 | 08:44 16:04 33 | 09:57 (C13) 10:30 (C13) 17:10 | 07:52 07:20 18:11 | 06:20 20:16 21:18 | 05:08 21:18 | 04:27 22:05 22:00 | 04:42 22:00 21:04 | 05:37 21:04 19:45 | 06:39 20:01 18:25 | 07:40 18:25 16:13 | 07:46 15:38 10:15 (C13) | 08:40 15:38 10:15 (C13) |
| 13 | 08:43 16:06 33 | 09:57 (C13) 10:30 (C13) 17:12 | 07:50 07:17 18:13 | 06:17 20:18 21:20 | 05:06 21:20 | 04:26 22:06 21:59 | 04:43 21:59 21:02 | 05:39 21:02 19:42 | 06:41 20:01 18:22 | 07:42 18:22 16:11 | 07:49 15:38 10:15 (C13) | 08:42 15:38 10:15 (C13) |
| 14 | 08:42 16:08 33 | 09:58 (C13) 10:31 (C13) 17:14 | 07:47 07:04 18:15 | 06:15 20:20 21:22 | 05:04 21:22 | 04:26 22:07 21:58 | 04:45 21:58 20:59 | 05:41 20:59 19:39 | 06:43 20:01 18:20 | 07:44 18:20 16:09 | 07:51 15:38 10:15 (C13) | 08:43 15:38 10:15 (C13) |
| 15 | 08:41 16:10 33 | 09:58 (C13) 10:31 (C13) 17:17 | 07:45 07:01 18:18 | 06:12 20:22 21:24 | 05:03 21:24 | 04:26 22:07 21:57 | 04:46 21:57 20:57 | 05:43 20:57 19:37 | 06:45 20:01 18:17 | 07:46 18:17 16:08 | 07:53 15:38 10:15 (C13) | 08:44 15:38 10:15 (C13) |
| 16 | 08:40 16:12 33 | 09:58 (C13) 10:31 (C13) 17:19 | 07:43 07:00 18:20 | 06:09 20:24 21:26 | 05:01 21:26 | 04:25 22:07 21:55 | 04:48 21:55 20:54 | 05:45 20:54 19:34 | 06:47 20:01 18:14 | 07:48 18:14 16:06 | 07:55 15:38 10:16 (C13) | 08:45 15:38 10:16 (C13) |
| 17 | 08:39 16:14 33 | 09:59 (C13) 10:32 (C13) 17:21 | 07:40 07:00 18:22 | 06:07 20:26 21:27 | 04:59 21:27 | 04:25 22:09 21:54 | 04:49 21:54 20:52 | 05:47 20:52 19:31 | 06:49 20:01 18:12 | 07:50 18:12 16:04 | 07:57 15:38 10:16 (C13) | 08:46 15:38 10:16 (C13) |
| 18 | 08:38 16:16 32 | 09:59 (C13) 10:32 (C13) 17:23 | 07:38 07:00 18:24 | 06:04 20:28 21:29 | 04:57 21:29 | 04:25 22:09 21:52 | 04:51 21:52 20:50 | 05:49 20:50 19:29 | 06:51 20:01 18:09 | 07:52 18:09 16:02 | 07:59 15:38 10:17 (C13) | 08:46 15:38 10:17 (C13) |
| 19 | 08:36 16:18 31 | 10:00 (C13) 10:31 (C13) 17:26 | 07:36 07:00 18:26 | 06:02 20:30 21:31 | 04:55 21:31 | 04:25 22:09 21:51 | 04:52 21:51 20:47 | 05:51 20:47 19:26 | 06:53 20:01 18:07 | 07:55 18:07 16:01 | 08:01 15:38 10:17 (C13) | 08:47 15:38 10:17 (C13) |
| 20 | 08:35 16:20 31 | 10:01 (C13) 10:32 (C13) 17:28 | 07:33 07:00 18:28 | 06:01 20:33 21:33 | 04:53 21:33 | 04:25 22:10 21:49 | 04:54 21:49 20:45 | 05:53 20:45 19:23 | 06:55 20:01 18:04 | 07:57 18:04 15:59 | 08:03 15:39 10:17 (C13) | 08:48 15:39 10:17 (C13) |
| 21 | 08:33 16:22 30 | 10:01 (C13) 10:31 (C13) 17:30 | 07:31 07:00 18:30 | 06:18 20:35 21:35 | 04:52 21:35 | 04:25 22:10 21:48 | 04:56 21:48 20:42 | 05:55 20:42 19:20 | 06:57 20:01 18:02 | 07:59 18:02 15:58 | 08:05 15:39 10:18 (C13) | 08:49 15:39 10:18 (C13) |
| 22 | 08:32 16:24 29 | 10:02 (C13) 10:31 (C13) 17:32 | 07:28 07:00 18:32 | 06:16 20:37 21:37 | 04:50 21:37 | 04:25 22:10 21:46 | 04:57 21:46 20:40 | 05:57 20:40 19:18 | 06:59 20:01 17:59 | 08:01 17:59 15:56 | 08:07 15:39 10:18 (C13) | 08:49 15:39 10:18 (C13) |
| 23 | 08:30 16:26 27 | 10:03 (C13) 10:30 (C13) 17:34 | 07:26 07:00 18:34 | 06:13 20:39 21:38 | 04:48 21:38 | 04:26 22:10 21:45 | 04:59 21:45 20:37 | 05:59 20:37 19:15 | 07:01 20:01 17:57 | 08:03 17:57 15:55 | 08:09 15:39 10:19 (C13) | 08:50 15:39 10:19 (C13) |
| 24 | 08:29 16:28 27 | 10:04 (C13) 10:31 (C13) 17:37 | 07:23 07:00 18:36 | 06:10 20:41 21:40 | 04:47 21:40 | 04:26 22:10 21:43 | 05:01 21:43 20:35 | 06:01 20:35 19:12 | 07:03 20:01 17:55 | 08:05 17:55 15:53 | 08:11 15:39 10:19 (C13) | 08:51 15:39 10:19 (C13) |
| 25 | 08:27 16:30 25 | 10:05 (C13) 10:30 (C13) 17:39 | 07:21 07:00 18:38 | 06:07 20:43 21:42 | 04:45 21:42 | 04:26 22:10 21:41 | 05:03 21:41 20:32 | 06:03 20:32 19:10 | 07:05 20:01 16:52 | 08:07 16:52 15:52 | 08:13 15:39 10:20 (C13) | 08:51 15:40 10:20 (C13) |
| 26 | 08:26 16:32 22 | 10:07 (C13) 10:29 (C13) 17:41 | 07:18 07:00 18:41 | 06:05 20:45 21:43 | 04:44 21:43 | 04:27 22:10 21:39 | 05:04 21:39 20:30 | 06:05 20:30 19:07 | 07:07 20:01 16:50 | 08:09 16:50 15:51 | 08:15 15:39 10:20 (C13) | 08:51 15:40 10:20 (C13) |
| 27 | 08:24 16:34 20 | 10:08 (C13) 10:28 (C13) 17:43 | 07:16 07:00 18:43 | 06:02 20:47 21:45 | 04:42 21:45 | 04:27 22:10 21:38 | 05:06 21:38 20:27 | 06:07 20:27 19:04 | 07:09 20:01 16:47 | 08:12 16:47 15:49 | 08:17 15:39 10:21 (C13) | 08:51 15:40 10:21 (C13) |
| 28 | 08:22 16:36 16 | 10:10 (C13) 10:26 (C13) 17:45 | 07:13 07:00 18:45 | 05:59 20:49 21:47 | 04:41 21:47 | 04:28 22:10 21:36 | 05:08 21:36 20:24 | 06:09 20:24 19:02 | 07:11 20:01 16:45 | 08:14 16:45 15:48 | 08:19 15:39 10:21 (C13) | 08:51 15:40 10:21 (C13) |
| 29 | 08:20 16:39 11 | 10:13 (C13) 10:24 (C13) | 07:13 07:00 18:45 | 05:57 20:51 21:48 | 04:40 21:48 | 04:29 22:10 21:34 | 05:10 21:34 20:22 | 06:11 20:22 18:59 | 07:13 20:01 16:43 | 08:21 16:43 15:47 | 08:21 15:39 10:21 (C13) | 08:51 15:40 10:21 (C13) |
| 30 | 08:19 16:41 | | 07:13 07:00 18:45 | 05:55 20:53 21:50 | 04:38 21:50 | 04:29 22:09 21:32 | 05:12 21:32 20:19 | 06:13 20:19 18:56 | 07:15 20:01 16:41 | 08:22 16:41 15:46 | 08:22 15:39 10:21 (C13) | 08:51 15:40 10:21 (C13) |
| 31 | 08:17 16:43 | | 07:13 07:00 18:45 | 05:51 20:53 21:51 | 04:37 21:51 | 04:37 21:51 21:30 | 05:14 21:30 20:17 | 06:15 20:17 18:56 | 07:20 20:01 16:38 | 08:23 16:38 15:47 | 08:23 15:39 10:21 (C13) | 08:51 15:40 10:21 (C13) |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 850 | | | | | | | | | | | |
| Sun reduction | 0.13 | | | | | | | | | | | |
| Oper. time red. | 0.98 | | | | | | | | | | | |
| Wind dir. red. | 0.61 | | | | | | | | | | | |
| Total reduction | 0.08 | | | | | | | | | | | |
| Total, real | 68 | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ziemeli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (125)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | | April | May | June | July | August | September | | October | | November | December | |
|---------------------|----------------|----------------|----------------|----|----------------------|----------------|----------------|----------------|----------------|----------------|----|----------------------|----|----------------------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | | 07:17 18:54 | 19 | 07:46 (C14) 08:05 (C14) | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | | 07:19 18:51 | 15 | 07:48 (C14) 08:03 (C14) | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | | 07:21 18:48 | 12 | 07:50 (C14) 08:02 (C14) | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | | 07:23 18:46 | 7 | 07:52 (C14) 07:59 (C14) | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | | 07:26 18:43 | 1 | 07:54 (C14) 07:55 (C14) | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:58 | | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | | 07:28 18:40 | | | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | | 07:30 18:38 | | | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | | 07:32 18:35 | | | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | | 07:34 18:33 | | | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 5 | 07:21 (C14) 20:10 | 05:13 21:12 | 04:28 22:02 | 04:40 22:03 | 05:33 21:11 | 06:35 19:53 | | 07:36 18:33 | | | 07:42 16:19 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 10 | 07:13 (C14) 20:12 | 05:13 21:14 | 04:28 22:03 | 04:41 22:02 | 05:35 21:08 | 06:37 19:50 | | 07:38 18:30 | | | 07:44 16:17 | 08:39 15:39 |
| 12 | 08:44 16:03 | 07:52 17:08 | 06:42 18:09 | 14 | 07:10 (C14) 20:14 | 05:11 21:16 | 04:27 22:02 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | | 07:38 18:27 | | | 07:44 16:15 | 08:39 15:39 |
| 13 | 08:43 16:05 | 07:50 17:10 | 06:40 18:11 | 17 | 07:08 (C14) 20:16 | 05:09 21:18 | 04:27 22:05 | 04:44 22:00 | 05:39 21:04 | 06:41 19:45 | | 07:40 18:25 | | | 07:46 16:13 | 08:40 15:38 |
| 14 | 08:42 16:08 | 07:47 17:12 | 06:37 18:13 | 21 | 07:05 (C14) 20:18 | 05:07 21:20 | 04:26 22:06 | 04:45 21:59 | 05:41 21:02 | 06:43 19:42 | | 07:42 18:22 | | | 07:49 16:11 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:14 | 06:34 18:16 | 24 | 07:26 (C14) 20:20 | 05:05 21:22 | 04:26 22:07 | 04:46 21:58 | 05:41 20:59 | 06:45 19:39 | | 07:44 18:20 | | | 07:51 16:10 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:43 17:17 | 06:32 18:18 | 26 | 07:01 (C14) 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | | 07:46 18:17 | | | 07:53 16:08 | 08:44 15:38 |
| 17 | 08:40 16:14 | 07:43 17:21 | 06:32 18:20 | 26 | 07:00 (C14) 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | | 07:48 18:15 | | | 07:55 16:06 | 08:45 15:38 |
| 18 | 08:39 16:16 | 07:40 17:23 | 06:29 18:24 | 25 | 07:00 (C14) 20:26 | 05:00 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | | 07:50 18:12 | | | 07:57 16:04 | 08:46 15:38 |
| 19 | 08:38 16:18 | 07:38 17:26 | 06:26 18:26 | 25 | 07:25 (C14) 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | | 07:53 18:09 | | | 07:59 16:03 | 08:46 15:38 |
| 20 | 08:36 16:20 | 07:36 17:28 | 06:24 18:28 | 25 | 07:00 (C14) 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | | 07:55 (C14) 18:07 | 6 | 08:01 (C14) 07:51 (C14) | 08:01 16:01 | 08:47 15:38 |
| 21 | 08:35 16:22 | 07:33 17:30 | 06:21 18:30 | 23 | 07:00 (C14) 20:33 | 04:54 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 13 | 07:57 (C14) 18:04 | | | 08:03 15:59 | 08:48 15:39 |
| 22 | 08:33 16:24 | 07:31 17:32 | 06:18 18:32 | 21 | 07:23 (C14) 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 17 | 07:59 (C14) 18:02 | | | 08:05 15:58 | 08:49 15:39 |
| 23 | 08:32 16:26 | 07:28 17:35 | 06:16 18:34 | 19 | 07:02 (C14) 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 20 | 07:47 (C14) 18:00 | | | 08:07 15:56 | 08:49 15:40 |
| 24 | 08:30 16:28 | 07:26 17:37 | 06:13 18:36 | 14 | 07:04 (C14) 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 23 | 07:45 (C14) 17:57 | | | 08:03 15:55 | 08:50 15:40 |
| 25 | 08:29 16:30 | 07:23 17:39 | 06:10 18:39 | 8 | 07:06 (C14) 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 24 | 07:44 (C14) 17:55 | | | 08:05 15:53 | 08:51 15:41 |
| 26 | 08:27 16:32 | 07:21 17:41 | 06:08 18:41 | | 05:49 20:45 | 04:47 21:43 | 04:27 22:10 | 05:03 21:39 | 06:03 20:30 | 07:05 19:07 | 25 | 07:43 (C14) 16:50 | | | 07:07 15:51 | 08:50 15:42 |
| 27 | 08:26 16:34 | 07:18 17:43 | 06:05 18:43 | | 05:47 20:47 | 04:45 21:45 | 04:27 22:10 | 05:05 21:38 | 06:05 20:27 | 07:07 19:04 | 26 | 07:43 (C14) 16:48 | | | 07:10 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 26 | 07:42 (C14) 16:45 | | | 07:14 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 25 | 07:42 (C14) 16:43 | | | 07:16 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | | 05:35 20:53 | 04:38 21:50 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 22 | 07:44 (C14) 16:41 | | | 07:18 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | | 05:14 21:30 | 06:15 20:17 | | | 07:20 16:38 | | | 08:51 15:47 | |
| Potential sun hours | 235 | 266 | 366 | | 426 | 508 | 528 | 529 | 469 | 385 | | 324 | | | 247 | 216 |
| Total, worst case | | | 303 | | | | | | | 252 | | 54 | | | | |
| Sun reduction | | | 0.41 | | | | | | | 0.43 | | 0.26 | | | | |
| Oper. time red. | | | 0.98 | | | | | | | 0.98 | | 0.98 | | | | |
| Wind dir. red. | | | 0.63 | | | | | | | 0.63 | | 0.63 | | | | |
| Total reduction | | | 0.25 | | | | | | | 0.26 | | 0.16 | | | | |
| Total, real | | | 77 | | | | | | | 66 | | 9 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |
| | Minutes with flicker | | |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ziemelnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (27)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December | |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------------|----------------|----------------------|----------------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:11 17:47 | 06:49 19:53 | 05:32 20:55 | 04:36 21:52 | 05:47 (C12) 20:43 (C15) | 04:30 22:09 | 20:12 (C16) 21:28 | 05:16 20:53 (C15) | 06:17 20:14 | 07:17 18:53 | 08:24 16:36 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 05:47 (C12) 20:41 (C15) | 04:31 22:08 | 20:12 (C16) 21:26 | 05:18 20:52 (C15) | 06:19 20:11 | 07:19 18:51 | 08:26 16:34 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 05:48 (C12) 20:41 (C15) | 04:32 22:02 | 20:12 (C16) 21:23 | 05:19 20:53 (C15) | 06:21 20:09 | 07:21 18:48 | 08:27 16:32 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 05:50 (C12) 20:40 (C15) | 04:33 22:07 | 20:12 (C16) 21:21 | 05:21 20:55 (C15) | 06:23 20:06 | 07:23 18:45 | 08:29 16:29 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:58 | 05:52 (C12) 20:39 (C16) | 04:34 22:06 | 20:12 (C16) 21:19 | 05:23 20:56 (C12) | 06:25 20:03 | 07:25 18:43 | 08:30 16:27 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 05:50 (C12) 20:25 (C16) | 04:31 21:59 | 20:06 (C16) 22:06 | 05:25 20:45 (C16) | 06:27 20:01 | 07:27 18:40 | 08:32 16:25 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 20:06 (C16) 20:38 (C16) | 04:36 22:05 | 06:00 (C12) 21:15 | 05:27 20:33 (C16) | 06:29 19:58 | 07:29 18:38 | 08:33 16:23 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 05:46 (C12) 20:36 (C15) | 04:37 22:04 | 05:58 (C12) 21:13 | 05:29 20:46 (C15) | 06:31 19:55 | 07:31 18:35 | 08:35 16:21 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:05 | 06:27 20:09 | 05:15 21:11 | 04:29 22:02 | 05:44 (C12) 20:38 (C15) | 04:38 22:03 | 05:56 (C12) 21:10 | 05:31 20:48 (C15) | 06:33 19:53 | 07:33 18:32 | 08:36 16:19 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:13 | 04:28 22:03 | 05:42 (C12) 20:40 (C15) | 04:39 22:02 | 05:55 (C12) 21:08 | 05:33 20:49 (C15) | 06:35 19:50 | 07:36 18:30 | 08:38 16:17 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:10 21:15 | 04:27 22:04 | 05:42 (C12) 20:41 (C15) | 04:41 22:01 | 05:54 (C12) 21:06 | 05:35 20:50 (C15) | 06:37 19:47 | 07:38 18:27 | 08:39 16:15 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:08 21:17 | 04:27 22:05 | 05:41 (C12) 20:43 (C15) | 04:42 22:00 | 05:55 (C12) 21:04 | 05:37 20:52 (C15) | 06:39 19:45 | 07:40 18:25 | 08:40 16:13 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 05:40 (C12) 20:45 (C15) | 04:43 22:07 | 05:54 (C12) 21:01 | 05:39 20:53 (C15) | 06:41 19:42 | 07:42 18:22 | 08:41 16:11 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 05:41 (C12) 20:47 (C15) | 04:45 21:58 | 05:53 (C12) 20:59 | 05:41 20:53 (C15) | 06:43 19:39 | 07:44 18:19 | 08:42 16:09 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 05:40 (C12) 20:47 (C15) | 04:46 21:56 | 05:52 (C12) 20:57 | 05:43 20:54 (C15) | 06:45 19:37 | 07:46 18:17 | 08:43 16:08 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:01 21:25 | 04:25 22:08 | 05:40 (C12) 20:47 (C15) | 04:48 21:55 | 05:52 (C12) 20:54 | 05:45 20:55 (C15) | 06:47 19:34 | 07:48 18:14 | 08:44 16:06 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 05:40 (C12) 20:48 (C15) | 04:49 21:54 | 05:51 (C12) 20:52 | 05:47 20:55 (C15) | 06:49 19:31 | 07:50 18:12 | 08:45 16:04 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 05:40 (C12) 20:47 (C15) | 04:51 21:52 | 05:52 (C12) 20:49 | 05:49 20:56 (C15) | 06:51 19:28 | 07:52 18:09 | 08:46 16:02 |
| 19 | 08:36 16:18 | 07:35 17:25 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 05:39 (C12) 20:47 (C15) | 04:52 21:51 | 05:51 (C12) 20:47 | 05:51 20:56 (C15) | 06:53 19:26 | 07:54 18:07 | 08:47 16:01 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 05:40 (C12) 20:48 (C15) | 04:54 21:49 | 05:51 (C12) 20:44 | 05:53 20:57 (C15) | 06:55 19:23 | 07:56 18:04 | 08:48 15:59 |
| 21 | 08:33 16:22 | 07:30 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 05:40 (C12) 20:47 (C15) | 04:56 21:48 | 05:50 (C12) 20:42 | 05:55 20:51 (C12) | 06:57 19:20 | 07:59 18:02 | 08:48 15:58 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:26 22:10 | 05:41 (C12) 20:47 (C15) | 04:57 21:46 | 05:51 (C12) 20:39 | 05:57 20:58 (C15) | 06:59 19:18 | 08:01 17:59 | 08:49 15:56 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 05:41 (C12) 20:48 (C15) | 04:59 21:44 | 05:50 (C12) 20:37 | 05:59 20:50 (C12) | 07:01 19:15 | 08:03 17:57 | 08:49 15:55 |
| 24 | 08:29 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:41 (C12) 20:47 (C15) | 05:01 21:43 | 05:50 (C12) 20:34 | 06:01 20:58 (C15) | 07:03 19:12 | 08:05 17:55 | 08:50 15:53 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:26 22:10 | 05:42 (C12) 20:47 (C15) | 05:03 21:41 | 05:50 (C12) 20:32 | 06:03 20:57 (C15) | 07:05 19:10 | 07:07 16:52 | 08:50 15:52 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:43 (C12) 20:47 (C15) | 05:04 21:39 | 05:50 (C12) 20:29 | 06:05 20:58 (C15) | 07:07 19:07 | 07:09 16:50 | 08:50 15:51 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:42 (C12) 20:46 (C15) | 05:06 21:37 | 05:50 (C12) 20:27 | 06:07 20:58 (C15) | 07:09 19:04 | 07:11 16:47 | 08:50 15:49 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:43 (C12) 20:45 (C15) | 05:08 21:35 | 05:50 (C12) 20:24 | 06:09 20:57 (C15) | 07:11 19:01 | 07:14 16:45 | 08:51 15:44 |
| 29 | 08:20 16:39 | 07:11 17:47 | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:44 (C12) 20:45 (C15) | 05:10 21:33 | 05:50 (C12) 20:22 | 06:11 20:57 (C15) | 07:13 18:59 | 07:16 16:43 | 08:51 15:45 |
| 30 | 08:18 16:41 | 07:04 17:49 | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:45 (C12) 20:45 (C15) | 05:12 21:32 | 05:51 (C12) 20:19 | 06:13 20:57 (C15) | 07:15 18:56 | 07:18 16:40 | 08:51 15:46 |
| 31 | 08:16 16:43 | 06:51 19:51 | 06:51 19:51 | 05:37 21:51 | 04:37 21:51 | 04:30 22:04 | 05:46 (C12) 20:44 (C15) | 05:14 21:30 | 05:52 (C12) 20:16 | 06:15 20:55 (C15) | 07:20 16:38 | 07:20 16:38 | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 | |
| Total, worst case | | | | | 1611 | | 973 | 1775 | | 298 | | | |
| Sun reduction | | | | | 0.57 | | 0.56 | 0.49 | | 0.50 | | | |
| Oper. time red. | | | | | 0.98 | | 0.98 | 0.98 | | 0.98 | | | |
| Wind dir. red. | | | | | 0.64 | | 0.63 | 0.64 | | 0.64 | | | |
| Total reduction | | | | | 0.36 | | 0.34 | 0.31 | | 0.31 | | | |
| Total, real | | | | | 572 | | 334 | 545 | | 93 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Zvirgzdini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (24)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:57 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:18 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:20 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:37 22:03 | 05:31 21:11 | 06:33 19:52 | 07:33 18:32 | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:07 | 06:24 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:14 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:21 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:04 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:24 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:53 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:12 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:41 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:46 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Zilites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (97)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | | February | | | | March | | | | April | | | | May | | | | June | | | |
|---------------------|---------|------|-------------|-------|----------|----|------------|--|-------|--|--|--|-------|------|--|------------|------------|-------|------------|------------|-------|--|--|--|
| 1 | 08:51 | | 13:19 (C13) | 08:15 | 07:11 | | | | | | | | 06:49 | | | | 05:32 | | 06:23 (C1) | 04:36 | | | | |
| | 15:48 | 15 | 13:34 (C13) | 16:45 | 17:47 | | | | | | | | 19:53 | | | | 20:55 | 39 | 07:02 (C1) | 21:53 | | | | |
| 2 | 08:50 | | 13:21 (C13) | 08:13 | 07:08 | | | | | | | | 06:46 | | | | 05:30 | | 06:23 (C1) | 04:35 | | | | |
| | 15:49 | 13 | 13:34 (C13) | 16:47 | 17:50 | | | | | | | | 19:55 | | | | 20:57 | 39 | 07:02 (C1) | 21:54 | | | | |
| 3 | 08:50 | | 13:22 (C13) | 08:11 | 07:06 | | | | | | | | 06:43 | | | | 05:28 | | 06:23 (C1) | 04:34 | | | | |
| | 15:51 | 11 | 13:33 (C13) | 16:50 | 17:52 | | | | | | | | 19:57 | | | | 21:00 | 39 | 07:02 (C1) | 21:55 | | | | |
| 4 | 08:50 | | 13:24 (C13) | 08:09 | 07:03 | | | | | | | | 06:41 | | | | 05:26 | | 06:23 (C1) | 04:33 | | | | |
| | 15:52 | 8 | 13:32 (C13) | 16:52 | 17:54 | | | | | | | | 19:59 | | | | 21:02 | 39 | 07:02 (C1) | 21:57 | | | | |
| 5 | 08:49 | | 13:27 (C13) | 08:07 | 07:00 | | | | | | | | 06:38 | | | | 05:23 | | 06:24 (C1) | 04:32 | | | | |
| | 15:53 | 3 | 13:30 (C13) | 16:54 | 17:56 | | | | | | | | 20:01 | | | | 21:04 | 38 | 07:02 (C1) | 21:58 | | | | |
| 6 | 08:49 | | | 08:05 | 06:58 | | | | | | | | 06:35 | | | | 05:21 | | 06:24 (C1) | 04:31 | | | | |
| | 15:55 | | | 16:56 | 17:58 | | | | | | | | 20:03 | | | | 21:06 | 38 | 07:02 (C1) | 21:59 | | | | |
| 7 | 08:48 | | | 08:03 | 06:55 | | | | | | | | 06:33 | | | | 05:19 | | 06:24 (C1) | 04:30 | | | | |
| | 15:56 | | | 16:59 | 18:00 | | | | | | | | 20:05 | | | | 21:08 | 37 | 07:01 (C1) | 22:00 | | | | |
| 8 | 08:48 | | | 08:00 | 06:53 | | | | | | | | 06:30 | | | | 05:17 | | 06:24 (C1) | 04:29 | | | | |
| | 15:58 | | | 17:01 | 18:03 | | | | | | | | 20:08 | | | | 21:10 | 37 | 07:01 (C1) | 22:01 | | | | |
| 9 | 08:47 | | | 07:58 | 06:50 | | | | | | | | 06:27 | | | | 05:15 | | 06:25 (C1) | 04:28 | | | | |
| | 15:59 | | | 17:03 | 18:05 | | | | | | | | 20:10 | | | | 21:12 | 35 | 07:00 (C1) | 22:02 | | | | |
| 10 | 08:46 | | | 07:56 | 06:47 | | | | | | | | 06:25 | | | | 05:13 | | 06:25 (C1) | 04:28 | | | | |
| | 16:01 | | | 17:05 | 18:07 | | | | | | | | 20:12 | | | | 21:14 | 34 | 06:59 (C1) | 22:03 | | | | |
| 11 | 08:45 | | | 07:54 | 06:45 | | | | | | | | 06:22 | | | | 05:10 | | 06:25 (C1) | 04:27 | | | | |
| | 16:03 | | | 17:08 | 18:09 | | | | | | | | 20:14 | | | | 21:16 | 34 | 06:59 (C1) | 22:04 | | | | |
| 12 | 08:44 | | | 07:52 | 06:42 | | | | | | | | 06:20 | | | | 05:08 | | 06:26 (C1) | 04:27 | | | | |
| | 16:04 | | | 17:10 | 18:11 | | | | | | | | 20:16 | | | | 21:18 | 32 | 06:58 (C1) | 22:05 | | | | |
| 13 | 08:43 | | | 07:49 | 06:39 | | | | | | | | 06:17 | | | | 05:06 | | 06:26 (C1) | 04:26 | | | | |
| | 16:06 | | | 17:12 | 18:13 | | | | | | | | 20:18 | | | | 21:20 | 31 | 06:57 (C1) | 22:06 | | | | |
| 14 | 08:42 | | | 07:47 | 06:37 | | | | | | | | 06:14 | | | | 05:04 | | 06:28 (C1) | 04:26 | | | | |
| | 16:08 | | | 17:14 | 18:15 | | | | | | | | 20:20 | | | | 21:22 | 28 | 06:56 (C1) | 22:07 | | | | |
| 15 | 08:41 | | | 07:45 | 06:34 | | | | | | | | 06:12 | | | | 05:02 | | 06:29 (C1) | 04:26 | | | | |
| | 16:10 | | | 17:17 | 18:17 | 1 | 06:59 (C4) | | | | | | 20:22 | | | | 21:24 | 26 | 06:55 (C1) | 22:07 | | | | |
| 16 | 08:40 | | | 07:43 | 06:32 | | 06:57 (C4) | | | | | | 06:09 | | | | 05:01 | | 06:30 (C1) | 04:25 | | | | |
| | 16:12 | | | 17:19 | 18:20 | 7 | 07:04 (C4) | | | | | | 20:24 | | | | 21:25 | 24 | 06:54 (C1) | 22:08 | | | | |
| 17 | 08:39 | | | 07:40 | 06:29 | | 06:54 (C4) | | | | | | 06:07 | | | | 04:59 | | 06:32 (C1) | 04:25 | | | | |
| | 16:14 | | | 17:21 | 18:22 | 11 | 07:05 (C4) | | | | | | 20:26 | | | | 21:27 | 21 | 06:53 (C1) | 22:08 | | | | |
| 18 | 08:37 | | | 07:38 | 06:26 | | 06:51 (C4) | | | | | | 06:04 | | | 06:42 (C1) | 04:57 | | 06:33 (C1) | 04:25 | | | | |
| | 16:16 | | | 17:23 | 18:24 | 15 | 07:06 (C4) | | | | | | 20:28 | | | 7 | 06:49 (C1) | 21:29 | 18 | 06:51 (C1) | 22:09 | | | |
| 19 | 08:36 | | | 07:35 | 06:23 | | 06:49 (C4) | | | | | | 06:02 | | | | 06:38 (C1) | 04:55 | | 06:34 (C1) | 04:25 | | | |
| | 16:18 | | | 17:25 | 18:26 | 18 | 07:07 (C4) | | | | | | 20:30 | | | 16 | 06:54 (C1) | 21:31 | 15 | 06:49 (C1) | 22:09 | | | |
| 20 | 08:35 | | | 07:33 | 06:21 | | 06:46 (C4) | | | | | | 05:59 | | | | 06:34 (C1) | 04:53 | | 06:38 (C1) | 04:25 | | | |
| | 16:20 | | | 17:28 | 18:28 | 21 | 07:07 (C4) | | | | | | 20:33 | | | 21 | 06:55 (C1) | 21:33 | 8 | 06:46 (C1) | 22:10 | | | |
| 21 | 08:33 | | | 07:31 | 06:18 | | 06:46 (C4) | | | | | | 05:57 | | | | 06:32 (C1) | 04:52 | | | 04:25 | | | |
| | 16:22 | | | 17:30 | 18:30 | 21 | 07:07 (C4) | | | | | | 20:35 | | | 26 | 06:58 (C1) | 21:35 | | | 22:10 | | | |
| 22 | 08:32 | | | 07:28 | 06:15 | | 06:46 (C4) | | | | | | 05:54 | | | | 06:31 (C1) | 04:50 | | | 04:25 | | | |
| | 16:24 | | | 17:32 | 18:32 | 21 | 07:07 (C4) | | | | | | 20:37 | | | 28 | 06:59 (C1) | 21:36 | | | 22:10 | | | |
| 23 | 08:30 | | | 07:26 | 06:13 | | 06:46 (C4) | | | | | | 05:52 | | | | 06:29 (C1) | 04:48 | | | 04:26 | | | |
| | 16:26 | | | 17:34 | 18:34 | 20 | 07:06 (C4) | | | | | | 20:39 | | | 31 | 07:00 (C1) | 21:38 | | | 22:10 | | | |
| 24 | 08:29 | | | 07:23 | 06:10 | | 06:46 (C4) | | | | | | 05:49 | | | | 06:28 (C1) | 04:47 | | | 04:26 | | | |
| | 16:28 | | | 17:37 | 18:36 | 19 | 07:05 (C4) | | | | | | 20:41 | | | 33 | 07:01 (C1) | 21:40 | | | 22:10 | | | |
| 25 | 08:27 | | | 07:21 | 06:07 | | 06:46 (C4) | | | | | | 05:47 | | | | 06:27 (C1) | 04:45 | | | 04:26 | | | |
| | 16:30 | | | 17:39 | 18:38 | 17 | 07:03 (C4) | | | | | | 20:43 | | | 35 | 07:02 (C1) | 21:42 | | | 22:10 | | | |
| 26 | 08:26 | | | 07:18 | 06:05 | | 06:47 (C4) | | | | | | 05:44 | | | | 06:26 (C1) | 04:44 | | | 04:27 | | | |
| | 16:32 | | | 17:41 | 18:40 | 16 | 07:03 (C4) | | | | | | 20:45 | | | 35 | 07:01 (C1) | 21:43 | | | 22:10 | | | |
| 27 | 08:24 | | | 07:16 | 06:02 | | 06:48 (C4) | | | | | | 05:42 | | | | 06:25 (C1) | 04:42 | | | 04:27 | | | |
| | 16:34 | | | 17:43 | 18:43 | 12 | 07:00 (C4) | | | | | | 20:47 | | | 37 | 07:02 (C1) | 21:45 | | | 22:10 | | | |
| 28 | 08:22 | | | 07:13 | 05:59 | | 06:52 (C4) | | | | | | 05:39 | | | | 06:25 (C1) | 04:41 | | | 04:28 | | | |
| | 16:36 | | | 17:45 | 18:45 | 4 | 06:56 (C4) | | | | | | 20:49 | | | 38 | 07:03 (C1) | 21:47 | | | 22:10 | | | |
| 29 | 08:20 | | | | 06:57 | | | | | | | | 05:37 | | | | 06:25 (C1) | 04:39 | | | 04:28 | | | |
| | 16:39 | | | | 19:47 | | | | | | | | 20:51 | | | 38 | 07:03 (C1) | 21:48 | | | 22:10 | | | |
| 30 | 08:18 | | | | 06:54 | | | | | | | | 05:35 | | | | 06:24 (C1) | 04:38 | | | 04:29 | | | |
| | 16:41 | | | | 19:49 | | | | | | | | 20:53 | | | 38 | 07:02 (C1) | 21:50 | | | 22:09 | | | |
| 31 | 08:17 | | | | 06:51 | | | | | | | | | | | | | 04:37 | | | | | | |
| | 16:43 | | | | 19:51 | | | | | | | | | | | | | 21:51 | | | | | | |
| Potential sun hours | 235 | | | 266 | 366 | | | | | | | | 426 | | | | 508 | | | 529 | | | | |
| Total, worst case | | 50 | | | | | 203 | | | | | | | 383 | | | | 612 | | | | | | |
| Sun reduction | | 0.13 | | | | | 0.41 | | | | | | | 0.50 | | | | 0.57 | | | | | | |
| Oper. time red. | | 0.98 | | | | | 0.98 | | | | | | | 0.98 | | | | 0.98 | | | | | | |
| Wind dir. red. | | 0.64 | | | | | 0.64 | | | | | | | 0.65 | | | | 0.65 | | | | | | |
| Total reduction | | 0.08 | | | | | 0.26 | | | | | | | 0.32 | | | | 0.36 | | | | | | |
| Total, real | | 4 | | | | | 52 | | | | | | | 122 | | | | 221 | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Zilites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (97)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|--------------------------------|--------------------------------|--------------------------------|----------------|-------------------------------|
| 1 | 04:30 22:09 | 05:16 21:28 32 | 06:36 (C1) 07:08 (C1) 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:17 21:26 34 | 06:35 (C1) 07:09 (C1) 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:19 21:24 35 | 06:35 (C1) 07:10 (C1) 20:09 | 07:21 18:48 | 07:27 16:31 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:21 21:22 36 | 06:35 (C1) 07:11 (C1) 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 04:34 22:07 | 05:23 21:19 37 | 06:33 (C1) 07:10 (C1) 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 38 | 06:33 (C1) 07:11 (C1) 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 38 | 06:33 (C1) 07:11 (C1) 19:58 | 07:29 18:38 | 07:36 16:23 | 08:34 15:40 2 |
| 8 | 04:37 22:04 | 05:29 21:13 39 | 06:33 (C1) 07:12 (C1) 19:55 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 8 |
| 9 | 04:38 22:03 | 05:31 21:11 39 | 06:33 (C1) 07:12 (C1) 19:53 | 07:34 18:32 | 07:40 16:19 | 08:37 15:39 11 |
| 10 | 04:39 22:02 | 05:33 21:08 39 | 06:32 (C1) 07:11 (C1) 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 13 |
| 11 | 04:41 22:01 | 05:35 21:06 39 | 06:32 (C1) 07:11 (C1) 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:38 14 |
| 12 | 04:42 22:00 | 05:37 21:04 39 | 06:32 (C1) 07:11 (C1) 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 15 |
| 13 | 04:43 21:59 | 05:39 21:01 39 | 06:32 (C1) 07:11 (C1) 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 16 |
| 14 | 04:45 21:58 | 05:41 20:59 38 | 06:32 (C1) 07:10 (C1) 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:38 17 |
| 15 | 04:46 21:57 | 05:43 20:57 37 | 06:33 (C1) 07:10 (C1) 19:37 | 07:46 18:17 | 07:53 16:07 | 08:44 15:38 18 |
| 16 | 04:48 21:55 | 05:45 20:54 36 | 06:33 (C1) 07:09 (C1) 19:34 | 07:48 18:14 | 07:55 16:06 | 08:45 15:38 18 |
| 17 | 04:49 21:54 | 05:47 20:52 35 | 06:33 (C1) 07:08 (C1) 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 19 |
| 18 | 04:51 21:52 | 05:49 20:50 34 | 06:33 (C1) 07:07 (C1) 19:29 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 19 |
| 19 | 04:52 21:51 | 05:51 20:47 32 | 06:34 (C1) 07:06 (C1) 19:26 | 07:53 18:07 | 07:55 16:01 | 08:47 15:38 20 |
| 20 | 04:54 21:49 | 05:53 20:45 30 | 06:35 (C1) 07:05 (C1) 19:23 | 07:52 18:04 | 07:57 15:59 | 08:48 15:38 20 |
| 21 | 04:56 21:48 | 05:55 20:42 28 | 06:36 (C1) 07:04 (C1) 19:20 | 07:53 18:02 | 07:59 15:58 | 08:48 15:39 20 |
| 22 | 04:57 21:46 | 05:57 20:40 25 | 06:37 (C1) 07:02 (C1) 19:18 | 07:54 17:59 | 08:01 15:56 | 08:49 15:39 20 |
| 23 | 04:59 21:45 | 06:01 20:37 21 | 06:39 (C1) 07:00 (C1) 19:15 | 07:51 17:57 | 08:03 15:55 | 08:50 15:40 20 |
| 24 | 05:01 21:43 | 06:06 20:35 15 | 06:42 (C1) 06:57 (C1) 19:12 | 07:31 (C4) 07:50 (C4) 17:55 | 08:05 15:53 | 08:50 15:40 20 |
| 25 | 05:03 21:41 | 06:04 (C1) 07:00 (C1) 20:32 | 06:03 06:47 (C1) 19:05 | 07:33 (C4) 07:49 (C4) 16:52 | 08:13 15:52 | 08:50 15:41 19 |
| 26 | 05:04 21:39 | 06:42 (C1) 07:02 (C1) 20:29 | 06:05 07:07 (C1) 19:07 | 07:36 (C4) 07:49 (C4) 16:50 | 08:15 15:51 | 08:51 15:42 19 |
| 27 | 05:06 21:38 | 06:41 (C1) 07:04 (C1) 20:27 | 06:07 07:09 (C1) 19:04 | 07:38 (C4) 07:47 (C4) 16:47 | 08:17 15:49 | 08:51 15:43 18 |
| 28 | 05:08 21:36 | 06:39 (C1) 07:04 (C1) 20:24 | 06:09 07:11 (C1) 19:02 | 07:40 (C4) 07:44 (C4) 16:45 | 08:19 15:48 | 08:51 15:44 18 |
| 29 | 05:10 21:34 | 06:39 (C1) 07:06 (C1) 20:22 | 06:11 07:13 (C1) 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:44 18 |
| 30 | 05:12 21:32 | 06:38 (C1) 07:07 (C1) 20:19 | 06:13 07:15 (C1) 18:56 | 07:18 16:40 | 08:22 15:46 | 08:51 15:45 17 |
| 31 | 05:14 21:30 | 06:37 (C1) 07:08 (C1) 20:17 | 06:15 20:17 | 07:20 16:38 | 08:51 15:47 | 13:19 (C13) 13:34 (C13) 15 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | 184 | 820 | 208 | | | 414 |
| Sun reduction | 0.49 | 0.50 | 0.43 | | | 0.07 |
| Oper. time red. | 0.98 | 0.98 | 0.98 | | | 0.98 |
| Wind dir. red. | 0.65 | 0.65 | 0.64 | | | 0.64 |
| Total reduction | 0.31 | 0.32 | 0.27 | | | 0.04 |
| Total, real | 58 | 259 | 56 | | | 18 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Zilusala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (150)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:58 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:06 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 08:09 17:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 08:12 17:47 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Abeles - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (153)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 04:57 21:43 | 05:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:49 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Arsmenieki (kad. apz. 76860060006001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (196)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:57 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:04 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:58 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:51 | 06:49 19:31 | 07:50 18:12 | 07:56 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:25 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:00 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:38 | 06:07 18:38 | 05:47 20:42 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Arsmenieki (kad. apz. 76860060006008) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (200)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:36 21:52 | 04:30 22:08 | 05:15 21:27 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:35 21:53 | 04:31 22:08 | 05:17 21:25 | 06:19 20:11 | 07:19 18:51 | 07:24 16:34 | 08:25 15:44 |
| 3 | 08:50 15:51 | 08:10 16:49 | 07:05 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:07 | 05:19 21:23 | 06:21 20:08 | 07:21 18:48 | 07:26 16:31 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:08 16:52 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:33 21:56 | 04:33 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:57 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:55 | 08:04 16:56 | 06:57 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:58 | 04:35 22:05 | 05:25 21:17 | 06:27 20:00 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:52 18:02 | 06:30 20:07 | 05:17 21:09 | 04:29 22:01 | 04:37 22:04 | 05:29 21:12 | 06:31 19:55 | 07:31 18:35 | 07:37 16:21 | 08:35 15:40 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:15 21:11 | 04:28 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:52 | 07:33 18:32 | 07:39 16:19 | 08:36 15:39 |
| 10 | 08:45 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:13 | 04:28 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:30 | 07:42 16:17 | 08:37 15:39 |
| 11 | 08:45 16:03 | 07:54 17:07 | 06:44 18:09 | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:51 17:10 | 06:42 18:11 | 06:19 20:15 | 05:08 21:17 | 04:27 22:04 | 04:42 22:00 | 05:37 21:03 | 06:39 19:44 | 07:39 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:19 | 04:26 22:05 | 04:43 21:58 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:36 18:15 | 06:14 20:20 | 05:04 21:21 | 04:26 22:06 | 04:45 21:57 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:44 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:56 | 06:45 19:36 | 07:46 18:17 | 07:52 16:07 | 08:43 15:38 |
| 16 | 08:39 16:12 | 07:42 17:19 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:07 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:54 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:21 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:53 | 05:47 20:51 | 06:49 19:31 | 07:50 18:12 | 07:56 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:37 17:23 | 06:26 18:23 | 06:04 20:28 | 04:57 21:29 | 04:25 22:08 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:50 | 05:51 20:47 | 06:53 19:25 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:32 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:47 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:34 | 04:25 22:09 | 04:56 21:47 | 05:55 20:42 | 06:57 19:20 | 07:58 18:02 | 08:05 15:57 | 08:48 15:39 |
| 22 | 08:31 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:36 | 04:50 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:00 17:59 | 08:07 15:56 | 08:48 15:39 |
| 23 | 08:30 16:26 | 07:25 17:34 | 06:12 18:34 | 05:51 20:38 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:28 16:28 | 07:23 17:36 | 06:10 18:36 | 05:49 20:40 | 04:47 21:39 | 04:26 22:10 | 05:01 21:42 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:49 15:40 |
| 25 | 08:27 16:30 | 07:20 17:38 | 06:07 18:38 | 05:47 20:42 | 04:45 21:41 | 04:26 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:50 | 08:50 15:42 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:44 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:16 15:49 | 08:50 15:43 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:41 21:46 | 04:28 22:09 | 05:08 21:35 | 06:09 20:24 | 07:11 19:01 | 07:13 16:45 | 08:18 15:48 | 08:50 15:44 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:09 | 05:10 21:33 | 06:11 20:21 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:50 15:44 |
| 30 | 08:18 16:41 | | 06:54 19:48 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:31 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:46 | 08:50 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:29 | 06:15 20:16 | | 07:20 16:38 | | 08:50 15:47 |
| Potential sun hours | 236 | 266 | 366 | 426 | 507 | 528 | 529 | 469 | 384 | 324 | 248 | 217 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ergliš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (208)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | | April | May | June | July | August | September | | October | | November | December | |
|---------------------|----------------|----------------|----------------|----|--------------------------|----------------|----------------|----------------|----------------|----------------|------------|----------------|----|--------------------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:14 16:45 | 07:10 17:47 | | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:27 | 06:17 20:14 | | 07:17 18:53 | 23 | 17:57 (C3) 18:20 (C3) | 07:22 16:35 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:12 16:47 | 07:08 17:49 | | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:25 | 06:19 20:11 | | 07:19 18:50 | 21 | 17:58 (C3) 18:19 (C3) | 07:24 16:33 | 08:26 15:43 |
| 3 | 08:50 15:50 | 08:10 16:49 | 07:05 17:51 | | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:23 | 06:21 20:08 | | 07:21 18:48 | 19 | 17:58 (C3) 18:17 (C3) | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:49 15:51 | 08:08 16:51 | 07:03 17:54 | | 06:40 19:59 | 05:25 21:01 | 04:32 21:56 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | | 07:23 18:45 | 15 | 18:00 (C3) 18:15 (C3) | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:06 16:54 | 07:00 17:56 | | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:06 | 05:23 21:19 | 06:25 20:03 | | 07:25 18:42 | 10 | 18:02 (C3) 18:12 (C3) | 07:31 16:27 | 08:30 15:41 |
| 6 | 08:48 15:54 | 08:04 16:56 | 06:57 17:58 | | 06:35 20:03 | 05:21 21:05 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:00 | | 07:27 18:40 | 2 | 18:07 (C3) 18:09 (C3) | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | | 06:32 20:05 | 05:18 21:07 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | | 07:29 18:37 | | | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 8 | 17:26 (C3) 17:34 (C3) | 06:30 20:07 | 05:16 21:09 | 04:29 22:01 | 05:29 21:13 | 06:31 19:55 | | 07:31 18:35 | | | 07:37 16:20 | 08:35 15:39 |
| 9 | 08:46 15:59 | 07:58 17:03 | 06:50 18:04 | 13 | 17:23 (C3) 17:36 (C3) | 06:27 20:09 | 05:14 21:11 | 04:28 22:02 | 05:31 21:10 | 06:33 19:52 | | 07:33 18:32 | | | 07:40 16:18 | 08:36 15:39 |
| 10 | 08:46 16:00 | 07:56 17:05 | 06:47 18:06 | 16 | 17:22 (C3) 17:38 (C3) | 06:24 20:11 | 05:12 21:13 | 04:27 22:03 | 05:33 21:08 | 06:35 19:50 | | 07:35 18:29 | | | 07:42 16:16 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:44 18:09 | 20 | 17:20 (C3) 17:40 (C3) | 06:22 20:13 | 05:10 21:15 | 04:27 22:04 | 05:35 21:06 | 06:37 19:47 | | 07:37 18:27 | | | 07:44 16:14 | 08:39 15:39 |
| 12 | 08:44 16:04 | 07:51 17:09 | 06:42 18:11 | 22 | 17:19 (C3) 17:41 (C3) | 06:19 20:15 | 05:08 21:17 | 04:26 22:05 | 05:37 21:03 | 06:39 19:44 | | 07:39 18:24 | | | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 24 | 17:17 (C3) 17:41 (C3) | 06:17 20:18 | 05:06 21:19 | 04:26 22:06 | 05:39 21:01 | 06:41 19:42 | | 07:41 18:22 | | | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:07 | 07:47 17:14 | 06:36 18:15 | 25 | 17:17 (C3) 17:42 (C3) | 06:14 20:20 | 05:04 21:21 | 04:25 22:06 | 05:41 20:59 | 06:43 19:39 | | 07:44 18:19 | | | 07:50 16:09 | 08:42 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 24 | 17:17 (C3) 17:41 (C3) | 06:11 20:22 | 05:02 21:23 | 04:25 22:07 | 05:43 20:56 | 06:45 19:36 | | 07:46 18:16 | | | 07:52 16:07 | 08:43 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 25 | 17:16 (C3) 17:41 (C3) | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 05:45 20:54 | 06:47 19:34 | | 07:48 18:14 | | | 07:55 16:05 | 08:44 15:37 |
| 17 | 08:38 16:13 | 07:40 17:21 | 06:28 18:21 | 24 | 17:17 (C3) 17:41 (C3) | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 05:47 20:52 | 06:49 19:31 | | 07:50 18:11 | | | 07:57 16:04 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:37 17:23 | 06:26 18:23 | 23 | 17:17 (C3) 17:40 (C3) | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 05:49 20:49 | 06:51 19:28 | | 07:52 18:09 | | | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:25 | 22 | 17:17 (C3) 17:39 (C3) | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 05:51 20:47 | 06:53 19:25 | | 07:54 18:06 | | | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:34 16:19 | 07:33 17:27 | 06:20 18:28 | 20 | 17:18 (C3) 17:38 (C3) | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 05:53 20:44 | 06:55 19:23 | | 07:56 18:04 | | | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:29 | 06:18 18:30 | 17 | 17:19 (C3) 17:36 (C3) | 05:56 20:34 | 04:51 21:34 | 04:25 22:10 | 05:55 20:42 | 06:57 19:20 | 18:07 (C3) | 07:58 18:01 | | | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 12 | 17:21 (C3) 17:33 (C3) | 05:54 20:36 | 04:49 21:36 | 04:25 22:10 | 05:57 20:39 | 06:59 19:17 | 18:04 (C3) | 08:01 17:59 | | | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:25 17:34 | 06:12 18:34 | 5 | 17:24 (C3) 17:29 (C3) | 05:51 20:38 | 04:48 21:38 | 04:25 22:10 | 05:59 20:37 | 07:01 19:15 | 18:02 (C3) | 08:03 17:56 | | | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:28 16:27 | 07:23 17:36 | 06:10 18:36 | | 05:49 20:40 | 05:49 21:40 | 04:46 22:10 | 04:25 21:43 | 06:01 20:34 | 07:03 19:12 | 18:01 (C3) | 08:05 17:54 | | | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:20 17:38 | 06:07 18:38 | | 05:46 20:43 | 05:46 21:41 | 04:45 22:10 | 04:26 21:41 | 06:03 20:32 | 07:05 19:09 | 18:00 (C3) | 07:07 16:52 | | | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:40 | 06:04 18:40 | | 05:44 20:45 | 05:44 21:43 | 04:43 22:10 | 04:26 21:39 | 06:05 20:29 | 07:07 19:07 | 17:59 (C3) | 07:09 16:49 | | | 08:15 15:50 | 08:50 15:41 |
| 27 | 08:23 16:34 | 07:15 17:43 | 06:02 18:42 | | 05:41 20:47 | 05:41 21:45 | 04:42 22:10 | 04:27 21:37 | 06:07 20:27 | 07:09 19:04 | 17:58 (C3) | 07:11 16:47 | | | 08:17 15:49 | 08:50 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | | 05:39 20:49 | 05:39 21:46 | 04:40 22:10 | 04:27 21:35 | 06:09 20:24 | 07:11 19:01 | 17:58 (C3) | 07:13 16:45 | | | 08:18 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | | 05:37 20:51 | 05:37 21:48 | 04:39 22:09 | 04:28 21:33 | 06:11 20:21 | 07:13 18:58 | 17:57 (C3) | 07:16 16:42 | | | 08:20 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:48 | | 05:34 20:53 | 05:34 21:49 | 04:38 22:09 | 04:29 21:31 | 06:13 20:19 | 07:15 18:56 | 17:57 (C3) | 07:18 16:40 | | | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:42 | | 06:51 19:50 | | | 04:36 21:51 | | 05:13 21:29 | 06:15 20:16 | | 18:21 (C3) | 07:20 16:38 | | | 08:51 15:46 | |
| Potential sun hours | 235 | 266 | 366 | | 426 | 508 | 529 | 529 | 469 | 385 | | 324 | | 247 | 216 | |
| Total, worst case | | | 300 | | | | | | | 212 | | 90 | | | | |
| Sun reduction | | | 0.41 | | | | | | | 0.43 | | 0.26 | | | | |
| Oper. time red. | | | 0.98 | | | | | | | 0.98 | | 0.98 | | | | |
| Wind dir. red. | | | 0.65 | | | | | | | 0.65 | | 0.65 | | | | |
| Total reduction | | | 0.26 | | | | | | | 0.27 | | 0.17 | | | | |
| Total, real | | | 79 | | | | | | | 58 | | 15 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ergli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (34)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:10 17:47 | 06:48 19:53 | 05:32 20:55 | 04:35 21:52 | 04:29 22:09 | 05:15 21:28 | 06:17 20:14 | 07:17 18:53 | 07:22 16:36 | 08:24 15:44 |
| 2 | 08:50 15:49 | 08:13 16:47 | 07:08 17:49 | 06:46 19:55 | 05:30 20:57 | 04:34 21:54 | 04:30 22:08 | 05:17 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:33 | 08:26 15:44 |
| 3 | 08:50 15:50 | 08:11 16:49 | 07:05 17:51 | 06:43 19:57 | 05:27 20:59 | 04:33 21:55 | 04:31 22:08 | 05:19 21:24 | 06:21 20:08 | 07:21 18:48 | 07:27 16:31 | 08:27 15:43 |
| 4 | 08:50 15:51 | 08:09 16:51 | 07:03 17:54 | 06:40 19:59 | 05:25 21:01 | 04:32 21:57 | 04:32 22:07 | 05:21 21:21 | 06:23 20:06 | 07:23 18:45 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:31 21:58 | 04:33 22:07 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:31 15:41 |
| 6 | 08:49 15:54 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 04:30 21:59 | 04:34 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:40 |
| 7 | 08:48 15:56 | 08:02 16:58 | 06:55 18:00 | 06:32 20:05 | 05:19 21:08 | 04:29 22:00 | 04:35 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:37 | 07:35 16:23 | 08:34 15:40 |
| 8 | 08:47 15:57 | 08:00 17:00 | 06:52 18:02 | 06:30 20:07 | 05:16 21:10 | 04:29 22:01 | 04:36 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:39 |
| 9 | 08:47 15:59 | 07:58 17:03 | 06:50 18:04 | 06:27 20:09 | 05:14 21:12 | 04:28 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:33 18:32 | 07:40 16:18 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:11 | 05:12 21:14 | 04:27 22:03 | 04:39 22:02 | 05:33 21:08 | 06:35 19:50 | 07:35 18:29 | 07:42 16:17 | 08:38 15:38 |
| 11 | 08:45 16:02 | 07:54 17:07 | 06:45 18:09 | 06:22 20:14 | 05:10 21:16 | 04:27 22:04 | 04:40 22:01 | 05:35 21:06 | 06:37 19:47 | 07:37 18:27 | 07:44 16:15 | 08:39 15:38 |
| 12 | 08:44 16:04 | 07:52 17:09 | 06:42 18:11 | 06:19 20:16 | 05:08 21:18 | 04:26 22:05 | 04:41 22:00 | 05:37 21:04 | 06:39 19:44 | 07:40 18:24 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:06 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:37 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:04 21:22 | 04:25 22:07 | 04:44 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:51 16:09 | 08:43 15:37 |
| 15 | 08:41 16:09 | 07:45 17:16 | 06:34 18:17 | 06:12 20:22 | 05:02 21:23 | 04:25 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:36 | 07:46 18:17 | 07:53 16:07 | 08:44 15:37 |
| 16 | 08:40 16:11 | 07:42 17:18 | 06:31 18:19 | 06:09 20:24 | 05:00 21:25 | 04:25 22:08 | 04:47 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:05 | 08:45 15:37 |
| 17 | 08:39 16:13 | 07:40 17:21 | 06:29 18:21 | 06:06 20:26 | 04:58 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:11 | 07:57 16:04 | 08:45 15:37 |
| 18 | 08:37 16:15 | 07:38 17:23 | 06:26 18:23 | 06:04 20:28 | 04:56 21:29 | 04:25 22:09 | 04:50 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:37 |
| 19 | 08:36 16:17 | 07:35 17:25 | 06:23 18:26 | 06:01 20:30 | 04:55 21:31 | 04:25 22:09 | 04:52 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:06 | 08:01 16:00 | 08:47 15:38 |
| 20 | 08:35 16:19 | 07:33 17:27 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:56 18:04 | 08:03 15:59 | 08:48 15:38 |
| 21 | 08:33 16:21 | 07:30 17:30 | 06:18 18:30 | 05:56 20:34 | 04:51 21:35 | 04:25 22:10 | 04:55 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:01 | 08:05 15:57 | 08:48 15:38 |
| 22 | 08:32 16:23 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:49 21:36 | 04:25 22:10 | 04:57 21:46 | 05:57 20:39 | 06:59 19:17 | 08:01 17:59 | 08:07 15:56 | 08:49 15:39 |
| 23 | 08:30 16:25 | 07:26 17:34 | 06:13 18:34 | 05:51 20:39 | 04:48 21:38 | 04:25 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:54 | 08:49 15:39 |
| 24 | 08:29 16:27 | 07:23 17:36 | 06:10 18:36 | 05:49 20:41 | 04:46 21:40 | 04:25 22:10 | 05:00 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:54 | 08:11 15:53 | 08:50 15:40 |
| 25 | 08:27 16:29 | 07:21 17:38 | 06:07 18:38 | 05:46 20:43 | 04:45 21:42 | 04:26 22:10 | 05:02 21:41 | 06:03 20:32 | 07:05 19:09 | 07:07 16:52 | 08:13 15:51 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:04 18:40 | 05:44 20:45 | 04:43 21:43 | 04:26 22:10 | 05:04 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:49 | 08:15 15:50 | 08:51 15:41 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:42 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:11 16:47 | 08:17 15:49 | 08:51 15:42 |
| 28 | 08:22 16:36 | 07:13 17:45 | 05:59 18:44 | 05:39 20:49 | 04:40 21:46 | 04:27 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:01 | 07:14 16:45 | 08:19 15:48 | 08:51 15:43 |
| 29 | 08:20 16:38 | | 06:56 19:46 | 05:37 20:51 | 04:39 21:48 | 04:28 22:10 | 05:09 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:42 | 08:21 15:47 | 08:51 15:44 |
| 30 | 08:18 16:40 | | 06:54 19:49 | 05:34 20:53 | 04:38 21:50 | 04:29 22:09 | 05:11 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:40 | 08:22 15:45 | 08:51 15:45 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:36 21:51 | | 05:13 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:46 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ives - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|----------------|----------------|-------|---------------|
| 1 | 08:51 | 08:15 | 07:11 | 07:40 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 26 08:06 (C14) | 19:53 | 20:55 |
| 2 | 08:51 | 08:13 | 07:08 | 07:39 (C14) | 06:46 | 05:30 |
| | 15:50 | 16:48 | 17:50 | 27 08:06 (C14) | 19:55 | 20:58 |
| 3 | 08:50 | 08:11 | 07:06 | 07:40 (C14) | 06:44 | 05:28 |
| | 15:51 | 16:50 | 17:52 | 26 08:06 (C14) | 19:57 | 21:00 |
| 4 | 08:50 | 08:09 | 07:03 | 07:39 (C14) | 06:41 | 05:26 |
| | 15:52 | 16:52 | 17:54 | 27 08:06 (C14) | 19:59 | 21:02 |
| 5 | 08:49 | 08:07 | 07:01 | 07:39 (C14) | 06:38 | 05:24 |
| | 15:54 | 16:54 | 17:56 | 26 08:05 (C14) | 20:01 | 21:04 |
| 6 | 08:49 | 08:05 | 06:58 | 07:40 (C14) | 06:36 | 05:21 |
| | 15:55 | 16:57 | 17:58 | 25 08:05 (C14) | 20:03 | 21:06 |
| 7 | 08:48 | 08:03 | 06:55 | 07:40 (C14) | 06:33 | 05:19 |
| | 15:56 | 16:59 | 18:01 | 23 08:03 (C14) | 20:06 | 21:08 |
| 8 | 08:48 | 08:01 | 06:53 | 07:41 (C14) | 06:30 | 05:17 |
| | 15:58 | 17:01 | 18:03 | 20 08:01 (C14) | 20:08 | 21:10 |
| 9 | 08:47 | 07:58 | 06:50 | 07:43 (C14) | 06:28 | 05:15 |
| | 16:00 | 17:03 | 18:05 | 17 08:00 (C14) | 20:10 | 21:12 |
| 10 | 08:46 | 07:56 | 06:48 | 07:45 (C14) | 06:25 | 05:13 |
| | 16:01 | 17:05 | 18:07 | 12 07:57 (C14) | 20:12 | 21:14 |
| 11 | 08:45 | 07:54 | 06:45 | 07:49 (C14) | 06:22 | 05:11 |
| | 16:03 | 17:08 | 18:09 | 2 07:51 (C14) | 20:14 | 21:16 |
| 12 | 08:44 | 07:52 | 06:42 | | 06:20 | 05:09 |
| | 16:05 | 17:10 | 18:11 | | 20:16 | 21:18 |
| 13 | 08:43 | 07:50 | 06:40 | | 06:17 | 05:07 |
| | 16:06 | 17:12 | 18:13 | | 20:18 | 21:20 |
| 14 | 08:42 | 07:47 | 06:37 | | 06:15 | 05:05 |
| | 16:08 | 17:14 | 18:15 | | 20:20 | 21:22 |
| 15 | 08:41 | 07:45 | 06:34 | | 06:12 | 05:03 |
| | 16:10 | 17:17 | 18:18 | | 20:22 | 21:24 |
| 16 | 08:40 | 07:43 | 06:32 | | 06:09 | 05:01 |
| | 16:12 | 17:19 | 18:20 | | 20:24 | 21:26 |
| 17 | 08:39 | 07:40 | 06:29 | | 06:07 | 04:59 |
| | 16:14 | 17:21 | 18:22 | | 20:26 | 21:27 |
| 18 | 08:38 | 07:38 | 06:26 | | 06:04 | 04:57 |
| | 16:16 | 17:23 | 18:24 | | 20:28 | 21:29 |
| 19 | 08:36 | 07:36 | 06:24 | | 06:02 | 04:55 |
| | 16:18 | 17:26 | 18:26 | | 20:31 | 21:31 |
| 20 | 08:35 | 07:33 | 06:21 | | 05:59 | 04:53 |
| | 16:20 | 17:28 | 18:28 | | 20:33 | 21:33 |
| 21 | 08:33 | 07:31 | 06:18 | | 05:57 | 04:52 |
| | 16:22 | 17:30 | 18:30 | | 20:35 | 21:35 |
| 22 | 08:32 | 07:28 | 06:16 | | 05:54 | 04:50 |
| | 16:24 | 17:32 | 3 07:58 (C14) | 18:32 | 20:37 | 5 06:49 (C13) |
| 23 | 08:30 | 07:26 | 06:13 | | 05:52 | 04:48 |
| | 16:26 | 17:34 | 9 08:02 (C14) | 18:34 | 20:39 | 21:38 |
| 24 | 08:29 | 07:23 | 06:10 | | 05:49 | 04:47 |
| | 16:28 | 17:37 | 13 08:03 (C14) | 18:36 | 20:41 | 21:40 |
| 25 | 08:27 | 07:21 | 06:08 | | 05:47 | 04:45 |
| | 16:30 | 17:39 | 17 08:05 (C14) | 18:39 | 20:43 | 21:42 |
| 26 | 08:26 | 07:18 | 06:05 | | 05:44 | 04:44 |
| | 16:32 | 17:41 | 20 08:05 (C14) | 18:41 | 20:45 | 21:43 |
| 27 | 08:24 | 07:16 | 06:02 | | 05:42 | 04:42 |
| | 16:34 | 17:43 | 24 08:06 (C14) | 18:43 | 20:47 | 21:45 |
| 28 | 08:22 | 07:13 | 06:00 | | 05:40 | 04:41 |
| | 16:37 | 17:45 | 26 08:07 (C14) | 18:45 | 20:49 | 21:47 |
| 29 | 08:20 | | 06:57 | | 05:37 | 04:40 |
| | 16:39 | | 19:47 | | 20:51 | 21:48 |
| 30 | 08:19 | | 06:54 | | 05:35 | 04:38 |
| | 16:41 | | 19:49 | | 20:53 | 21:50 |
| 31 | 08:17 | | 06:52 | | | 04:37 |
| | 16:43 | | 19:51 | | | 21:51 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 112 | 231 | | 198 | |
| Sun reduction | | 0.20 | 0.41 | | 0.50 | |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.63 | 0.63 | | 0.66 | |
| Total reduction | | 0.12 | 0.25 | | 0.32 | |
| Total, real | | 14 | 58 | 63 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Ives - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 06:47 (C13) 18:54 | 07:17 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 06:49 (C13) 18:51 | 07:19 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 06:51 (C13) 18:48 | 07:21 16:32 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 06:54 (C13) 18:46 | 07:23 16:30 | 08:29 15:43 |
| 5 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:25 18:43 | 08:19 (C14) 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 08:17 (C14) 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 08:16 (C14) 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:15 (C14) 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 08:15 (C14) 16:19 | 08:37 15:39 |
| 10 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 08:14 (C14) 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 08:13 (C14) 16:15 | 08:39 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:13 (C14) 16:13 | 08:40 15:38 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:13 (C14) 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:13 (C14) 16:10 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:16 (C14) 16:08 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 08:18 (C14) 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:20 (C14) 16:04 | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 08:22 (C14) 16:03 | 08:46 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:25 (C14) 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:27 (C14) 15:59 | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:28 (C14) 15:58 | 08:49 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:14 17:46 | 08:19 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | 07:17 18:53 | 08:20 17:38 | 08:24 15:44 | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 183 | 20 | 349 | | |
| Sun reduction | | 0.50 | 0.43 | 0.26 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.66 | 0.66 | 0.63 | | |
| Total reduction | | 0.32 | 0.27 | 0.16 | | |
| Total, real | | 58 | 5 | 55 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kirš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|---------|----------|-------|-------------|-------------|-------|
| 1 | 08:51 | 08:15 | 07:11 | 07:37 (C14) | 06:49 | 05:33 |
| | 15:48 | 16:45 | 17:48 | 19 | 07:56 (C14) | 19:53 |
| 2 | 08:50 | 08:13 | 07:08 | 07:34 (C14) | 06:46 | 20:55 |
| | 15:50 | 16:48 | 17:50 | 23 | 07:57 (C14) | 19:55 |
| 3 | 08:50 | 08:11 | 07:06 | 07:32 (C14) | 06:44 | 20:58 |
| | 15:51 | 16:50 | 17:52 | 26 | 07:58 (C14) | 19:57 |
| 4 | 08:50 | 08:09 | 07:03 | 07:31 (C14) | 06:41 | 21:00 |
| | 15:52 | 16:52 | 17:54 | 27 | 07:58 (C14) | 19:59 |
| 5 | 08:49 | 08:07 | 07:01 | 07:30 (C14) | 06:38 | 21:02 |
| | 15:54 | 16:54 | 17:56 | 28 | 07:58 (C14) | 20:01 |
| 6 | 08:49 | 08:05 | 06:58 | 07:30 (C14) | 06:36 | 21:04 |
| | 15:55 | 16:57 | 17:58 | 29 | 07:59 (C14) | 20:03 |
| 7 | 08:48 | 08:03 | 06:55 | 07:29 (C14) | 06:33 | 21:06 |
| | 15:56 | 16:59 | 18:01 | 30 | 07:59 (C14) | 20:06 |
| 8 | 08:48 | 08:01 | 06:53 | 07:28 (C14) | 06:30 | 21:08 |
| | 15:58 | 17:01 | 18:03 | 30 | 07:58 (C14) | 20:08 |
| 9 | 08:47 | 07:58 | 06:50 | 07:29 (C14) | 06:28 | 21:10 |
| | 16:00 | 17:03 | 18:05 | 30 | 07:59 (C14) | 20:10 |
| 10 | 08:46 | 07:56 | 06:48 | 07:29 (C14) | 06:25 | 21:12 |
| | 16:01 | 17:05 | 18:07 | 29 | 07:58 (C14) | 20:12 |
| 11 | 08:45 | 07:54 | 06:45 | 07:29 (C14) | 06:22 | 21:14 |
| | 16:03 | 17:08 | 18:09 | 28 | 07:57 (C14) | 20:14 |
| 12 | 08:44 | 07:52 | 06:42 | 07:30 (C14) | 06:20 | 21:16 |
| | 16:05 | 17:10 | 18:11 | 26 | 07:56 (C14) | 20:16 |
| 13 | 08:43 | 07:50 | 06:40 | 07:30 (C14) | 06:17 | 21:18 |
| | 16:06 | 17:12 | 18:13 | 25 | 07:55 (C14) | 20:18 |
| 14 | 08:42 | 07:47 | 06:37 | 07:31 (C14) | 06:15 | 21:20 |
| | 16:08 | 17:14 | 18:15 | 22 | 07:53 (C14) | 20:20 |
| 15 | 08:41 | 07:45 | 06:34 | 07:33 (C14) | 06:12 | 21:22 |
| | 16:10 | 17:17 | 18:18 | 18 | 07:51 (C14) | 20:22 |
| 16 | 08:40 | 07:43 | 06:32 | 07:35 (C14) | 06:09 | 21:24 |
| | 16:12 | 17:19 | 18:20 | 13 | 07:48 (C14) | 20:24 |
| 17 | 08:39 | 07:40 | 06:29 | 07:40 (C14) | 06:07 | 21:26 |
| | 16:14 | 17:21 | 18:22 | 2 | 07:42 (C14) | 20:26 |
| 18 | 08:38 | 07:38 | 06:26 | | 06:04 | 21:27 |
| | 16:16 | 17:23 | 18:24 | | 20:28 | 21:29 |
| 19 | 08:36 | 07:36 | 06:24 | | 06:02 | 21:31 |
| | 16:18 | 17:26 | 18:26 | | 20:31 | 21:33 |
| 20 | 08:35 | 07:33 | 06:21 | | 05:59 | 21:35 |
| | 16:20 | 17:28 | 18:28 | | 20:33 | 21:37 |
| 21 | 08:33 | 07:31 | 06:18 | | 05:57 | 21:39 |
| | 16:22 | 17:30 | 18:30 | | 20:35 | 21:41 |
| 22 | 08:32 | 07:28 | 06:16 | | 05:54 | 21:43 |
| | 16:24 | 17:32 | 18:32 | | 20:37 | 21:45 |
| 23 | 08:30 | 07:26 | 06:13 | | 05:52 | 21:47 |
| | 16:26 | 17:34 | 18:34 | | 20:39 | 21:49 |
| 24 | 08:29 | 07:23 | 06:10 | | 05:49 | 21:51 |
| | 16:28 | 17:37 | 18:36 | | 20:41 | 21:53 |
| 25 | 08:27 | 07:21 | 06:08 | | 05:47 | 21:55 |
| | 16:30 | 17:39 | 18:39 | | 20:43 | 21:57 |
| 26 | 08:26 | 07:18 | 06:05 | | 05:44 | 21:59 |
| | 16:32 | 17:41 | 18:41 | | 20:45 | 22:01 |
| 27 | 08:24 | 07:16 | 06:02 | | 05:42 | 22:03 |
| | 16:34 | 17:43 | 18:43 | | 20:47 | 22:05 |
| 28 | 08:22 | 07:13 | 06:00 | | 05:40 | 22:07 |
| | 16:37 | 17:45 | 18:45 | | 20:49 | 22:09 |
| 29 | 08:20 | | 06:57 | | 05:37 | 22:11 |
| | 16:39 | | 19:47 | | 20:51 | 22:13 |
| 30 | 08:19 | | 06:54 | | 05:35 | 22:15 |
| | 16:41 | | 19:49 | | 20:53 | 22:17 |
| 31 | 08:17 | | 06:51 | | | 22:19 |
| | 16:43 | | 19:51 | | | 22:21 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 |
| Total, worst case | | 28 | 405 | 245 | | |
| Sun reduction | | 0.20 | 0.41 | 0.50 | | |
| Oper. time red. | | 0.98 | 0.98 | 0.98 | | |
| Wind dir. red. | | 0.62 | 0.62 | 0.65 | | |
| Total reduction | | 0.12 | 0.25 | 0.32 | | |
| Total, real | | 3 | 101 | 78 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

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Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kirš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------------|----------------------|----------------|
| 1 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 08:09 (C14) 16:36 | 08:24 15:45 |
| 2 | 04:31 22:09 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 08:08 (C14) 16:34 | 08:26 15:44 |
| 3 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 08:07 (C14) 16:32 | 08:28 15:43 |
| 4 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 08:06 (C14) 16:30 | 08:29 15:43 |
| 5 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:25 18:43 | 08:06 (C14) 16:27 | 08:31 15:42 |
| 6 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:28 18:40 | 08:05 (C14) 16:25 | 08:32 15:41 |
| 7 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 08:05 (C14) 16:23 | 08:34 15:40 |
| 8 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 08:05 (C14) 16:21 | 08:35 15:40 |
| 9 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 08:06 (C14) 16:19 | 08:37 15:39 |
| 10 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 08:06 (C14) 16:17 | 08:38 15:39 |
| 11 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 08:07 (C14) 16:15 | 08:39 15:39 |
| 12 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 08:09 (C14) 16:13 | 08:40 15:38 |
| 13 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 08:11 (C14) 16:11 | 08:42 15:38 |
| 14 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 08:13 (C14) 16:10 | 08:43 15:38 |
| 15 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 08:16 (C14) 16:08 | 08:44 15:38 |
| 16 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 08:24 (C14) 16:06 | 08:45 15:38 |
| 17 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 08:28 (C14) 16:04 | 08:46 15:38 |
| 18 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:52 18:09 | 08:30 (C14) 16:03 | 08:46 15:38 |
| 19 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:33 (C14) 16:01 | 08:47 15:38 |
| 20 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:36 (C14) 15:59 | 08:48 15:39 |
| 21 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:39 (C14) 15:58 | 08:48 15:39 |
| 22 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:42 (C14) 15:56 | 08:49 15:40 |
| 23 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:45 (C14) 15:55 | 08:50 15:40 |
| 24 | 05:01 21:43 | 06:01 20:35 | 07:03 19:12 | 08:05 17:55 | 08:48 (C14) 15:53 | 08:50 15:41 |
| 25 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:51 (C14) 15:52 | 08:51 15:41 |
| 26 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:54 (C14) 15:51 | 08:51 15:42 |
| 27 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 (C14) 17:48 | 08:57 (C14) 15:50 | 08:51 15:43 |
| 28 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 08:15 (C14) 17:46 | 08:59 (C14) 15:48 | 08:51 15:44 |
| 29 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:18 (C14) 17:44 | 09:02 (C14) 15:47 | 08:51 15:45 |
| 30 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:21 (C14) 17:42 | 09:05 (C14) 15:46 | 08:51 15:46 |
| 31 | 05:14 21:30 | 06:15 20:17 | | 08:24 (C14) 17:40 | 09:08 (C14) 15:45 | 08:51 15:47 |
| Potential sun hours | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | 249 | 71 | | 367 | |
| Sun reduction | | 0.50 | 0.43 | | 0.26 | |
| Oper. time red. | | 0.98 | 0.98 | | 0.98 | |
| Wind dir. red. | | 0.65 | 0.62 | | 0.62 | |
| Total reduction | | 0.32 | 0.26 | | 0.16 | |
| Total, real | | 79 | 18 | 58 | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|----------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kikaukas (kad. apz. 56960030117001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (12)
Assumptions for shadow calculations Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
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| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:31 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:08 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Kikaukas (kad. apz. 56960030117008) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (13)
Assumptions for shadow calculations Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|-----|-----|---|-----|-----|---|-----|-----|---|-----|-----|-----|
|---|-----|-----|---|-----|-----|---|-----|-----|---|-----|-----|-----|

| | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:56 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:51 15:49 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:09 | 05:18 21:26 | 06:19 20:12 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:08 | 05:22 21:22 | 06:23 20:06 | 07:24 18:46 | 07:29 16:30 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:23 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:36 20:04 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:25 21:18 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:40 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:59 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:03 | 04:38 22:04 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:39 22:03 | 05:33 21:09 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:02 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:47 16:13 | 08:41 15:38 |
| 13 | 08:43 16:06 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:26 22:06 | 04:43 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:09 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:46 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:26 | 04:26 22:08 | 04:48 21:55 | 05:45 20:55 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:28 | 04:25 22:09 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:29 | 04:57 21:29 | 04:25 22:09 | 04:51 21:53 | 05:49 20:50 | 06:51 19:29 | 07:53 18:09 | 07:59 16:03 | 08:47 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:10 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:33 | 04:53 21:33 | 04:25 22:10 | 04:54 21:50 | 05:53 20:45 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:34 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:49 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:31 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:11 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:11 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:26 22:11 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 08:07 17:52 | 08:13 15:52 | 08:51 15:41 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:44 | 04:27 22:11 | 05:05 21:40 | 06:05 20:30 | 07:07 19:07 | 08:10 17:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:27 22:10 | 05:06 21:38 | 06:07 20:27 | 07:09 19:04 | 08:12 17:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:25 | 07:11 19:02 | 08:14 17:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 08:16 17:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:54 | 04:38 21:50 | 04:29 22:10 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 08:18 17:41 | 08:23 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:21 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 529 | 529 | 469 | 385 | 324 | 247 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Lovani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (65)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:53 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:23 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:58 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:44 19:57 | 05:28 21:00 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:28 15:43 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 04:33 21:57 | 04:33 22:07 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:30 | 08:29 15:43 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:01 17:56 | 06:38 20:01 | 05:24 21:04 | 04:32 21:58 | 04:34 22:07 | 05:24 21:20 | 06:25 20:04 | 07:26 18:43 | 07:31 16:27 | 08:31 15:42 |
| 6 | 08:49 15:55 | 08:05 16:57 | 06:58 17:59 | 06:36 20:03 | 05:21 21:06 | 04:31 21:59 | 04:35 22:06 | 05:26 21:17 | 06:27 20:01 | 07:28 18:40 | 07:34 16:25 | 08:32 15:41 |
| 7 | 08:48 15:57 | 08:03 16:59 | 06:55 18:01 | 06:33 20:06 | 05:19 21:08 | 04:30 22:00 | 04:36 22:05 | 05:28 21:15 | 06:29 19:58 | 07:30 18:38 | 07:36 16:23 | 08:34 15:41 |
| 8 | 08:48 15:58 | 08:01 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 04:30 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:56 | 07:32 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:11 | 06:33 19:53 | 07:34 18:33 | 07:40 16:19 | 08:37 15:40 |
| 10 | 08:46 16:01 | 07:56 17:06 | 06:48 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:28 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:48 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:07 | 07:50 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 04:27 22:06 | 04:44 21:59 | 05:39 21:02 | 06:41 19:42 | 07:42 18:22 | 07:49 16:11 | 08:42 15:38 |
| 14 | 08:42 16:08 | 07:47 17:15 | 06:37 18:16 | 06:15 20:20 | 05:05 21:22 | 04:26 22:07 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:20 | 07:51 16:10 | 08:43 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:24 | 04:26 22:07 | 04:47 21:57 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:44 15:38 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:10 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:15 | 07:55 16:06 | 08:45 15:38 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:26 22:08 | 04:50 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:46 15:38 |
| 18 | 08:38 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:50 | 06:51 19:29 | 07:53 18:10 | 07:59 16:03 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:36 17:26 | 06:24 18:26 | 06:02 20:31 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:55 18:07 | 08:01 16:01 | 08:47 15:39 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 06:21 20:33 | 05:59 21:33 | 04:25 22:10 | 04:54 21:49 | 05:53 20:45 | 06:55 19:23 | 07:57 18:05 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 04:26 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:21 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:37 | 04:26 22:10 | 04:58 21:46 | 05:57 20:40 | 06:59 19:18 | 08:01 18:00 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:35 | 06:13 18:34 | 05:52 20:39 | 04:49 21:38 | 04:26 22:10 | 04:59 21:45 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:50 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:35 | 07:03 19:13 | 08:05 17:55 | 08:11 15:54 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:08 18:39 | 05:47 20:43 | 04:45 21:42 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:42 |
| 26 | 08:26 16:32 | 07:18 17:41 | 06:05 18:41 | 05:45 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:30 | 07:07 19:07 | 07:10 16:50 | 08:15 15:51 | 08:51 15:42 |
| 27 | 08:24 16:35 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:43 21:45 | 04:28 22:10 | 05:07 21:38 | 06:07 20:27 | 07:09 19:04 | 07:12 16:48 | 08:17 15:50 | 08:51 15:43 |
| 28 | 08:22 16:37 | 07:13 17:46 | 06:00 18:45 | 05:40 20:49 | 04:41 21:47 | 04:28 22:10 | 05:08 21:36 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:10 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:21 15:47 | 08:51 15:45 |
| 30 | 08:19 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:39 21:50 | 04:30 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:17 16:43 | | 06:52 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:17 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Udensrozes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (185)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1 | 08:50 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 04:36 21:52 | 04:30 22:09 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 | 08:24 15:45 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 04:35 21:54 | 04:31 22:08 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 | 08:26 15:44 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 20:59 | 04:34 21:55 | 04:32 22:08 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 | 08:27 15:43 |
| 4 | 08:49 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:01 | 04:33 21:56 | 04:33 22:07 | 05:22 21:21 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 | 08:29 15:42 |
| 5 | 08:49 15:53 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:23 21:03 | 04:32 21:58 | 04:34 22:06 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 | 08:30 15:42 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:05 | 04:31 21:59 | 04:35 22:06 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 | 08:32 15:41 |
| 7 | 08:48 15:56 | 08:02 16:59 | 06:55 18:00 | 06:33 20:05 | 05:19 21:07 | 04:30 22:00 | 04:36 22:05 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:35 16:23 | 08:33 15:40 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:07 | 05:17 21:10 | 04:29 22:01 | 04:37 22:04 | 05:29 21:13 | 06:31 19:55 | 07:31 18:35 | 07:38 16:21 | 08:35 15:40 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:09 | 05:15 21:12 | 04:29 22:02 | 04:38 22:03 | 05:31 21:10 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 | 08:36 15:39 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 04:28 22:03 | 04:40 22:02 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 | 08:38 15:39 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 04:27 22:04 | 04:41 22:01 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 | 08:39 15:39 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:17 | 04:27 22:05 | 04:42 22:00 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 | 08:40 15:38 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:39 18:13 | 06:17 20:18 | 05:07 21:19 | 04:27 22:06 | 04:44 21:59 | 05:39 21:01 | 06:41 19:42 | 07:42 18:22 | 07:48 16:11 | 08:41 15:38 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:14 20:20 | 05:05 21:21 | 04:26 22:06 | 04:45 21:58 | 05:41 20:59 | 06:43 19:39 | 07:44 18:19 | 07:50 16:09 | 08:42 15:38 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:17 | 06:12 20:22 | 05:03 21:23 | 04:26 22:07 | 04:46 21:56 | 05:43 20:57 | 06:45 19:37 | 07:46 18:17 | 07:53 16:08 | 08:43 15:38 |
| 16 | 08:40 16:12 | 07:42 17:19 | 06:31 18:20 | 06:09 20:24 | 05:01 21:25 | 04:26 22:08 | 04:48 21:55 | 05:45 20:54 | 06:47 19:34 | 07:48 18:14 | 07:55 16:06 | 08:44 15:38 |
| 17 | 08:38 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 04:25 22:08 | 04:49 21:54 | 05:47 20:52 | 06:49 19:31 | 07:50 18:12 | 07:57 16:04 | 08:45 15:38 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 04:25 22:09 | 04:51 21:52 | 05:49 20:49 | 06:51 19:28 | 07:52 18:09 | 07:59 16:02 | 08:46 15:38 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:23 18:26 | 06:02 20:30 | 04:55 21:31 | 04:25 22:09 | 04:53 21:51 | 05:51 20:47 | 06:53 19:26 | 07:54 18:07 | 08:01 16:01 | 08:47 15:38 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 04:25 22:09 | 04:54 21:49 | 05:53 20:44 | 06:55 19:23 | 07:57 18:04 | 08:03 15:59 | 08:48 15:39 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:34 | 04:52 21:34 | 04:25 22:10 | 04:56 21:48 | 05:55 20:42 | 06:57 19:20 | 07:59 18:02 | 08:05 15:58 | 08:48 15:39 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:15 18:32 | 05:54 20:37 | 04:50 21:36 | 04:26 22:10 | 04:58 21:46 | 05:57 20:39 | 06:59 19:18 | 08:01 17:59 | 08:07 15:56 | 08:49 15:40 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 04:26 22:10 | 04:59 21:44 | 05:59 20:37 | 07:01 19:15 | 08:03 17:57 | 08:09 15:55 | 08:49 15:40 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 04:26 22:10 | 05:01 21:43 | 06:01 20:34 | 07:03 19:12 | 08:05 17:55 | 08:11 15:53 | 08:50 15:41 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:41 | 04:27 22:10 | 05:03 21:41 | 06:03 20:32 | 07:05 19:10 | 07:07 16:52 | 08:13 15:52 | 08:50 15:41 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:40 | 05:44 20:45 | 04:44 21:43 | 04:27 22:10 | 05:05 21:39 | 06:05 20:29 | 07:07 19:07 | 07:09 16:50 | 08:15 15:51 | 08:50 15:42 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 04:28 22:10 | 05:06 21:37 | 06:07 20:27 | 07:09 19:04 | 07:12 16:47 | 08:17 15:50 | 08:50 15:43 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 04:28 22:10 | 05:08 21:35 | 06:09 20:24 | 07:11 19:02 | 07:14 16:45 | 08:19 15:48 | 08:51 15:44 |
| 29 | 08:20 16:39 | | 06:57 19:47 | 05:37 20:51 | 04:40 21:48 | 04:29 22:09 | 05:10 21:34 | 06:11 20:22 | 07:13 18:59 | 07:16 16:43 | 08:20 15:47 | 08:51 15:45 |
| 30 | 08:18 16:41 | | 06:54 19:49 | 05:35 20:53 | 04:38 21:49 | 04:29 22:09 | 05:12 21:32 | 06:13 20:19 | 07:15 18:56 | 07:18 16:41 | 08:22 15:46 | 08:51 15:46 |
| 31 | 08:16 16:43 | | 06:51 19:51 | | 04:37 21:51 | | 05:14 21:30 | 06:15 20:16 | | 07:20 16:38 | | 08:51 15:47 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 | 529 | 469 | 384 | 324 | 248 | 216 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|--------------|------------------|---------------------------------|----------------------------------|
| | Sun set (hh:mm) | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Udri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (186)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---------------------|----------------|----------------|----------------|----------------|----------------|----------------------|
| 1 | 08:51 15:48 | 08:15 16:45 | 07:11 17:48 | 06:49 19:53 | 05:33 20:55 | 06:36 (C16) 21:52 |
| 2 | 08:50 15:50 | 08:13 16:48 | 07:08 17:50 | 06:46 19:55 | 05:30 20:57 | 06:39 (C16) 21:54 |
| 3 | 08:50 15:51 | 08:11 16:50 | 07:06 17:52 | 06:43 19:57 | 05:28 20:59 | 06:43 (C16) 21:55 |
| 4 | 08:50 15:52 | 08:09 16:52 | 07:03 17:54 | 06:41 19:59 | 05:26 21:02 | 06:46 (C16) 21:56 |
| 5 | 08:49 15:54 | 08:07 16:54 | 07:00 17:56 | 06:38 20:01 | 05:24 21:04 | 06:39 (C16) 21:58 |
| 6 | 08:49 15:55 | 08:05 16:56 | 06:58 17:58 | 06:35 20:03 | 05:21 21:06 | 06:39 (C16) 21:59 |
| 7 | 08:48 15:56 | 08:03 16:59 | 06:55 18:01 | 06:33 20:05 | 05:19 21:08 | 06:39 (C16) 22:00 |
| 8 | 08:47 15:58 | 08:00 17:01 | 06:53 18:03 | 06:30 20:08 | 05:17 21:10 | 06:39 (C16) 22:01 |
| 9 | 08:47 16:00 | 07:58 17:03 | 06:50 18:05 | 06:28 20:10 | 05:15 21:12 | 06:39 (C16) 22:02 |
| 10 | 08:46 16:01 | 07:56 17:05 | 06:47 18:07 | 06:25 20:12 | 05:13 21:14 | 06:39 (C16) 22:03 |
| 11 | 08:45 16:03 | 07:54 17:08 | 06:45 18:09 | 06:22 20:14 | 05:11 21:16 | 06:39 (C16) 22:04 |
| 12 | 08:44 16:05 | 07:52 17:10 | 06:42 18:11 | 06:20 20:16 | 05:09 21:18 | 06:39 (C16) 22:05 |
| 13 | 08:43 16:06 | 07:49 17:12 | 06:40 18:13 | 06:17 20:18 | 05:07 21:20 | 06:39 (C16) 22:06 |
| 14 | 08:42 16:08 | 07:47 17:14 | 06:37 18:15 | 06:15 20:20 | 05:05 21:22 | 06:39 (C16) 22:06 |
| 15 | 08:41 16:10 | 07:45 17:17 | 06:34 18:18 | 06:12 20:22 | 05:03 21:23 | 06:39 (C16) 22:07 |
| 16 | 08:40 16:12 | 07:43 17:19 | 06:32 18:20 | 06:09 20:24 | 05:01 21:25 | 06:39 (C16) 22:08 |
| 17 | 08:39 16:14 | 07:40 17:21 | 06:29 18:22 | 06:07 20:26 | 04:59 21:27 | 06:39 (C16) 22:08 |
| 18 | 08:37 16:16 | 07:38 17:23 | 06:26 18:24 | 06:04 20:28 | 04:57 21:29 | 06:39 (C16) 22:09 |
| 19 | 08:36 16:18 | 07:35 17:26 | 06:24 18:26 | 06:02 20:30 | 04:55 21:31 | 06:39 (C16) 22:09 |
| 20 | 08:35 16:20 | 07:33 17:28 | 06:21 18:28 | 05:59 20:32 | 04:53 21:33 | 06:39 (C16) 22:10 |
| 21 | 08:33 16:22 | 07:31 17:30 | 06:18 18:30 | 05:57 20:35 | 04:52 21:35 | 06:39 (C16) 22:10 |
| 22 | 08:32 16:24 | 07:28 17:32 | 06:16 18:32 | 05:54 20:37 | 04:50 21:36 | 06:39 (C16) 22:10 |
| 23 | 08:30 16:26 | 07:26 17:34 | 06:13 18:34 | 05:52 20:39 | 04:48 21:38 | 06:39 (C16) 22:10 |
| 24 | 08:29 16:28 | 07:23 17:37 | 06:10 18:36 | 05:49 20:41 | 04:47 21:40 | 06:39 (C16) 22:10 |
| 25 | 08:27 16:30 | 07:21 17:39 | 06:07 18:38 | 05:47 20:43 | 04:45 21:42 | 06:39 (C16) 22:10 |
| 26 | 08:25 16:32 | 07:18 17:41 | 06:05 18:41 | 05:44 20:45 | 04:44 21:43 | 06:39 (C16) 22:10 |
| 27 | 08:24 16:34 | 07:16 17:43 | 06:02 18:43 | 05:42 20:47 | 04:42 21:45 | 06:39 (C16) 22:10 |
| 28 | 08:22 16:37 | 07:13 17:45 | 05:59 18:45 | 05:40 20:49 | 04:41 21:46 | 06:39 (C16) 22:10 |
| 29 | 08:20 16:39 | 06:57 19:47 | 05:57 20:51 | 05:37 20:51 | 04:40 21:48 | 06:39 (C16) 22:10 |
| 30 | 08:18 16:41 | 06:54 19:49 | 05:55 20:53 | 05:35 20:53 | 04:38 21:49 | 06:39 (C16) 22:09 |
| 31 | 08:17 16:43 | 06:51 19:51 | 05:51 20:51 | 05:31 20:51 | 04:37 21:51 | 06:39 (C16) 22:09 |
| Potential sun hours | 235 | 266 | 366 | 426 | 508 | 528 |
| Total, worst case | | | | 459 | 46 | 843 |
| Sun reduction | | | | 0.50 | 0.57 | 0.56 |
| Oper. time red. | | | | 0.98 | 0.98 | 0.98 |
| Wind dir. red. | | | | 0.66 | 0.66 | 0.67 |
| Total reduction | | | | 0.32 | 0.37 | 0.37 |
| Total, real | | | | 147 | 17 | 308 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:21/4.0.531

SHADOW - Calendar

Shadow receptor: Udri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (186)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|
| 1.01 | 1.91 | 4.85 | 7.09 | 9.29 | 9.83 | 8.40 | 7.53 | 5.47 | 2.70 | 0.68 | 0.49 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|-----|-----|-----|-----|-----|-----|-----|-----|-------|-------|-----|-----|-------|
| 441 | 466 | 538 | 463 | 487 | 780 | 784 | 937 | 1,214 | 1,078 | 832 | 556 | 8,576 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---------------------|----------------|----------------------|----------------|----------------------|----------------|----------------|
| 1 | 04:30 22:09 | 05:17 (C15) 21:28 | 05:16 21:28 | 06:17 20:14 | 07:17 18:54 | 07:22 16:36 |
| 2 | 04:31 22:08 | 05:16 (C15) 21:26 | 05:18 21:26 | 06:19 20:11 | 07:19 18:51 | 07:25 16:34 |
| 3 | 04:32 22:08 | 05:17 (C15) 21:24 | 05:20 21:24 | 06:21 20:09 | 07:21 18:48 | 07:27 16:32 |
| 4 | 04:33 22:07 | 05:18 (C15) 21:22 | 05:22 21:22 | 06:23 20:06 | 07:23 18:46 | 07:29 16:29 |
| 5 | 04:34 22:07 | 05:19 (C15) 21:19 | 05:23 21:19 | 06:25 20:03 | 07:25 18:43 | 07:31 16:27 |
| 6 | 04:35 22:06 | 05:19 (C15) 21:17 | 05:25 21:17 | 06:27 20:01 | 07:27 18:40 | 07:33 16:25 |
| 7 | 04:36 22:05 | 05:20 (C15) 21:15 | 05:27 21:15 | 06:29 19:58 | 07:29 18:38 | 07:36 16:23 |
| 8 | 04:37 22:04 | 05:21 (C15) 21:13 | 05:29 21:13 | 06:31 19:55 | 07:32 18:35 | 07:38 16:21 |
| 9 | 04:38 22:03 | 05:22 (C15) 21:11 | 05:31 21:11 | 06:33 19:53 | 07:34 18:32 | 07:40 16:19 |
| 10 | 04:40 22:02 | 05:23 (C15) 21:08 | 05:33 21:08 | 06:35 19:50 | 07:36 18:30 | 07:42 16:17 |
| 11 | 04:41 22:01 | 05:25 (C15) 21:06 | 05:35 21:06 | 06:37 19:47 | 07:38 18:27 | 07:44 16:15 |
| 12 | 04:42 22:00 | 05:27 (C15) 21:04 | 05:37 21:04 | 06:39 19:45 | 07:40 18:25 | 07:46 16:13 |
| 13 | 04:44 21:59 | 05:29 (C15) 21:01 | 05:39 21:01 | 06:43 (C16) 19:42 | 06:41 18:22 | 07:48 16:11 |
| 14 | 04:45 21:58 | 05:31 (C15) 20:59 | 05:41 20:59 | 06:45 (C16) 19:39 | 06:43 18:20 | 07:51 16:09 |
| 15 | 04:46 21:56 | 05:33 (C15) 20:57 | 05:43 20:57 | 06:47 (C16) 19:37 | 06:45 18:17 | 07:53 16:08 |
| 16 | 04:48 21:55 | 05:35 (C15) 20:54 | 05:45 20:54 | 06:49 (C16) 19:34 | 06:47 18:14 | 07:55 16:06 |
| 17 | 04:49 21:54 | 05:37 (C15) 20:52 | 05:47 20:52 | 06:51 (C16) 19:31 | 06:49 18:12 | 07:57 16:04 |
| 18 | 04:51 21:52 | 05:39 (C15) 20:49 | 05:49 20:49 | 06:53 (C16) 19:29 | 06:51 18:09 | 07:59 16:03 |
| 19 | 04:53 21:51 | 05:41 (C15) 20:47 | 05:51 20:47 | 06:55 (C16) 19:26 | 06:53 18:07 | 08:01 16:01 |
| 20 | 04:54 21:49 | 05:43 (C15) 20:45 | 05:53 20:45 | 06:57 (C16) 19:23 | 06:55 18:04 | 08:03 15:59 |
| 21 | 04:56 21:48 | 05:45 (C15) 20:42 | 05:55 20:42 | 06:59 (C16) 19:20 | 06:57 18:02 | 08:05 15:58 |
| 22 | 04:58 21:46 | 05:47 (C15) 20:40 | 05:57 20:40 | 07:01 (C16) 19:18 | 06:59 18:00 | 08:07 15:56 |
| 23 | 04:59 21:44 | 05:49 (C15) 20:37 | 05:59 20:37 | 07:03 (C16) 19:15 | 07:01 17:57 | 08:09 15:55 |
| 24 | 05:01 21:43 | 05:51 (C15) 20:35 | 06:01 20:35 | 07:05 (C16) 19:12 | 07:03 17:55 | 08:11 15:53 |
| 25 | 05:03 21:41 | 05:53 (C15) 20:32 | 06:03 20:32 | 07:07 (C16) 19:10 | 07:05 16:52 | 08:13 15:52 |
| 26 | 05:05 21:39 | 05:55 (C15) 20:29 | 06:05 20:29 | 07:09 (C16) 19:07 | 07:07 16:50 | 08:15 15:51 |
| 27 | 05:06 21:37 | 05:57 (C15) 20:27 | 06:07 20:27 | 07:11 (C16) 19:04 | 07:09 16:48 | 08:17 15:50 |
| 28 | 05:08 21:36 | 05:59 (C15) 20:24 | 06:09 20:24 | 07:13 (C16) 19:02 | 07:11 16:45 | 08:19 15:48 |
| 29 | 05:10 21:34 | 06:01 (C15) 20:22 | 06:11 20:22 | 07:15 (C16) 18:59 | 07:13 16:43 | 08:21 15:47 |
| 30 | 05:12 21:32 | 06:03 (C15) 20:19 | 06:13 20:19 | 07:17 (C16) 18:56 | 07:15 16:41 | 08:22 15:46 |
| 31 | 05:14 21:30 | 06:05 (C15) 20:17 | 06:15 20:17 | 07:19 (C16) 18:53 | 07:17 16:38 | 08:24 15:47 |
| Potential sun hours | 529 | 469 | | 384 | 324 | 248 |
| Total, worst case | 284 | 497 | | | | |
| Sun reduction | 0.49 | 0.50 | | | | |
| Oper. time red. | 0.98 | 0.98 | | | | |
| Wind dir. red. | 0.67 | 0.66 | | | | |
| Total reduction | 0.32 | 0.32 | | | | |
| Total, real | 92 | 158 | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker | Last time (hh:mm) with flicker | (WTG causing flicker first time) | (WTG causing flicker last time) |
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|
|--------------|------------------|-----------------|----------------------|---------------------------------|--------------------------------|----------------------------------|---------------------------------|