

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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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Calculated:

09/04/2024 19:14/4.0.531

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) []

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

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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
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Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
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Table layout: For each day in each month the following matrix apply

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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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

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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
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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
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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												
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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	07:47 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 20:54	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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	17:47 (C3) 18:12 (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	25	17:47 (C3) 18:12 (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	24	17:47 (C3) 18:11 (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	23	07:25 18:11 (C3)	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	5	17:20 (C3) 17:25 (C3)	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	06:25 21:19	20:03	07:25 18:42	22	17:48 (C3) 18:10 (C3)	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	13	17:15 (C3) 17:28 (C3)	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	06:27 21:17	20:00	07:27 18:40	19	17:49 (C3) 18:08 (C3)	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	17	17:14 (C3) 17:31 (C3)	06:32 20:05	05:18 21:07	04:29 22:00	04:35 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	20	17:12 (C3) 17:32 (C3)	06:30 20:07	05:16 21:09	04:29 22:01	04:36 21:13	05:29 19:55	06:31	07:31 18:35	10	17:53 (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	22	17:10 (C3) 17:32 (C3)	06:27 20:09	05:14 21:11	04:28 22:02	04:37 21:10	05:31 19:52	06:33	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	24	17:10 (C3) 17:34 (C3)	06:24 20:11	05:12 21:13	04:27 22:03	04:39 21:08	05:33 19:50	06:35	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	25	17:09 (C3) 17:34 (C3)	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37	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	25	17:08 (C3) 17:33 (C3)	06:19 20:15	05:08 21:17	04:26 22:05	04:41 22:00	05:37 21:03	06:39	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	26	17:07 (C3) 17:33 (C3)	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41	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	17:08 (C3) 17:33 (C3)	06:14 20:20	05:04 21:21	04:25 22:06	04:44 21:58	05:41 20:59	06:43	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	17:08 (C3) 17:32 (C3)	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:56	06:45	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	23	17:08 (C3) 17:31 (C3)	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47	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	23	17:09 (C3) 17:31 (C3)	06:06 20:26	04:58 21:27	04:25 22:08	05:49 21:54	05:47 20:52	06:49	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	22	17:09 (C3) 17:29 (C3)	06:04 20:28	04:56 21:29	04:25 22:09	05:49 21:52	05:49 20:49	06:51	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	20	17:10 (C3) 17:27 (C3)	06:01 20:30	04:55 21:31	04:25 22:09	05:51 21:51	06:53 20:47	06:53	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	17	17:13 (C3) 17:25 (C3)	05:59 20:32	04:53 21:33	04:25 22:09	05:53 21:49	06:55 20:44	06:55	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	12	05:56 20:34	04:51 21:34	04:25 22:10	04:25 21:48	05:55 20:42	06:57 19:20	06:57	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	04:25 21:46	05:57 20:39	06:59 19:17	06:59	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	07:01	08:03 17:56	10	17:58 (C3) 18:08 (C3)	08:09 17:56	08:49 15:54
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	07:03	08:05 17:54	15	17:55 (C3) 18:10 (C3)	08:11 17:53	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 21:42	06:03 20:32	07:05 19:09	07:05	08:07 17:53 (C3)	18	17:53 (C3) 18:11 (C3)	07:07 16:52	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	07:07	08:09 18:12 (C3)	21	17:51 (C3) 18:12 (C3)	07:09 16:49	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	07:09	08:11 17:50 (C3)	23	17:53 (C3) 18:13 (C3)	07:11 16:47	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	07:11	08:13 17:49 (C3)	24	17:53 (C3) 18:13 (C3)	07:13 16:45	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	07:13	08:15 17:48 (C3)	25	17:53 (C3) 18:13 (C3)	07:16 16:42	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	07:15	08:17 17:47 (C3)	26	17:53 (C3) 18:13 (C3)	07:18 16:40	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			320							162		164				
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			84							44		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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
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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		07:21 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:49 (C14) 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	07:17 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	07:49 (C14) 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	07:50 (C14) 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
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5	08:49 15:54	08:07 16:54	07:01 17:56	07:52 (C14) 19:59	06:38 21:04	05:24 21:58	04:32 22:07	04:34 21:20	05:24 20:04	06:25 18:43	07:26 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	07:54 (C14) 19:59	06:36 21:06	05:21 21:59	04:31 22:06	04:35 21:17	05:25 20:01	06:27 18:40	07:28 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	08:07 (C14) 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	08:31 (C14) 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	08:03 (C14) 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	08:32 (C14) 16:23	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	08:03 (C14) 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	08:33 (C14) 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	08:03 (C14) 19:59	06:25 21:14	05:13 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	08:34 (C14) 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	08:03 (C14) 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	08:35 (C14) 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	08:03 (C14) 19:59	06:20 21:18	05:09 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:36 (C14) 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	08:03 (C14) 19:59	06:17 21:20	05:07 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:37 (C14) 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	08:03 (C14) 19:59	06:15 21:22	05:05 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:38 (C14) 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	08:03 (C14) 19:59	06:12 21:24	05:03 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:39 (C14) 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	08:03 (C14) 19:59	06:09 21:26	05:01 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:40 (C14) 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	08:03 (C14) 19:59	06:07 21:27	04:59 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:41 (C14) 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	08:03 (C14) 19:59	06:04 21:29	04:57 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:09	08:42 (C14) 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	08:03 (C14) 19:59	06:02 21:31	04:55 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:43 (C14) 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	08:03 (C14) 19:59	05:59 21:33	04:53 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:44 (C14) 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	08:03 (C14) 19:59	05:57 21:35	04:52 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:45 (C14) 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	08:03 (C14) 19:59	05:54 21:37	04:50 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:46 (C14) 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	08:03 (C14) 19:59	05:52 21:38	04:48 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:47 (C14) 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	08:03 (C14) 19:59	05:49 21:40	04:47 22:10	04:56 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:48 (C14) 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	08:03 (C14) 19:59	05:47 21:42	04:45 22:10	04:53 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:49 (C14) 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	08:03 (C14) 19:59	05:45 21:43	04:44 22:10	04:51 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:50 (C14) 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	08:03 (C14) 19:59	05:42 21:45	04:42 22:10	04:50 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:51 (C14) 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	08:03 (C14) 19:59	05:40 21:47	04:41 22:10	04:50 21:36	06:09 20:24	07:11 19:02	08:14 17:45	08:52 (C14) 15:48	08:51 15:44
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Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		188	127							314		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.98	0.98							0.98		
Wind dir. red.		0.63	0.63							0.63		
Total reduction		0.12	0.25							0.16		
Total, real		23	32							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:

09/04/2024 19:14/4.0.531

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) []

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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 20:31	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	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	08:26 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 21:37	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		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		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
3	08:50 15:51	08:11 16:50		07:06 17:52		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
4	08:50 15:52	08:09 16:52		07:03 17:54		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
5	08:49 15:54	08:07 16:54		07:01 17:56		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
6	08:49 15:55	08:05 16:57		06:58 17:58		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
7	08:48 15:56	08:03 16:59		06:55 18:01		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
8	08:48 15:58	08:01 17:01		06:53 18:03		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
9	08:47 16:00	07:58 17:03		06:50 18:05		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
10	08:46 16:01	07:56 17:05		06:48 18:07		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
11	08:45 16:03	07:54 17:08		06:45 18:09		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
12	08:44 16:05	07:52 17:10		06:42 18:11		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
13	08:43 16:06	07:50 17:12		06:40 18:13		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
14	08:42 16:08	07:47 17:14		06:37 18:16		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
15	08:41 16:10	07:45 17:17		06:34 18:18		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
16	08:40 16:12	07:43 17:19		06:32 18:20		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
17	08:39 16:14	07:40 17:21		06:29 18:22		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
18	08:38 16:16	07:38 17:23		06:26 18:24		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
19	08:36 16:18	07:36 17:26		06:24 18:26		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
20	08:35 16:20	07:33 17:28	08:00 (C14)	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
21	08:33 16:22	07:31 17:30	08:05 (C14)	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
22	08:32 16:24	07:28 17:32	08:09 (C14)	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
23	08:30 16:26	07:26 17:34	08:11 (C14)	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
24	08:29 16:28	07:23 17:37	08:13 (C14)	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
25	08:27 16:30	07:21 17:39	08:12 (C14)	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	08:13 15:52
26	08:26 16:32	07:18 17:41	08:10 (C14)	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	08:09 17:50	08:15 15:51
27	08:24 16:34	07:16 17:43	08:13 (C14)	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
28	08:22 16:37	07:13 17:45	08:13 (C14)	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	08:19 15:48
29	08:20 16:39		08:13 (C14)	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
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 17:41	08:22 15:46
31	08:17 16:43			06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		08:20 16:38	08:51 15:47
Potential sun hours	235	266		366	426	508	529	529	469	385	324	247
Total, worst case												
Sun reduction		171		153						328		
Oper. time red.		0.20		0.41						0.26		
Wind dir. red.		0.98		0.98						0.98		
Total reduction		0.63		0.63						0.63		
Total, real		0.12		0.25						0.16		
		21		39						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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	20:59	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	07:25	07:31	08:31
	15:54	16:54	17:56	20:01	21:04	21:58	22:07	21:19	20:03	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	17:58	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	08:00	06:53	06:30	05:17	04:30	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	19:55	18:35	16:21	15:40
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	16:00	17:03	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:33	16:19	15:40
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	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	19:47	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
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	16:07	17:12	18:13	20:18	21:20	22:06	21:59	21:01	19:42	18:22	16:11	15:38
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	16:08	17:15	18:16	20:20	21:22	22:06	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	21:23	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	04:25	04:53	05:51	06:53	07:55	08:01	08:47
	16:18	17:26	18:26	20:30	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	21:44	20:37	19:15	17:57	15:55	15:40
24	08:29	07:23	06:10	05:49	04:47	04:26	05:01	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	19:12	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	08:25	07:18	06:05	05:45	04:44	04:27	05:05	06:05	07:07	07:10	08:15	08:50
	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	17:45	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	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:04 (C1) 17:47	06:49 19:53	05:32 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 15:49	08:13 16:47	07:08 17:50	08:07 (C1) 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34
3	08:50 15:51	08:11 16:50	07:06 17:52	08:13 (C1) 17:52	06:43 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31
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	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29
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	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27
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
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 20:58	07:30 18:38	07:36 16:23
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 20:55	07:32 18:35	07:38 16:21
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	04:38 22:03	05:31 21:11	06:33 20:53	07:34 18:32	07:40 16:19
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 20:50	07:36 18:30	07:42 16:17
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	04:41 22:01	05:35 21:06	06:37 20:47	07:38 18:27	07:44 16:15
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	04:42 22:00	05:37 21:04	06:39 20:45	07:40 18:25	07:46 16:13
13	08:43 16:06	07:50 17:12	06:40 18:13		06:17 20:18	05:06 21:20	04:43 22:06	05:39 21:59	06:41 21:42	07:42 18:22	07:49 16:11	08:39 (C1) 16:08
14	08:42 16:08	07:47 17:14	06:37 18:15		06:14 20:20	05:04 21:22	04:46 22:07	05:41 21:58	06:43 20:59	07:44 18:19	07:51 16:09	08:34 (C1) 16:07
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	05:43 21:57	06:45 20:57	07:46 18:17	07:53 16:07	08:34 (C1) 16:07
16	08:40 16:12	07:43 17:19	06:32 18:20	08:10 (C1)	06:09 20:24	05:01 21:26	04:45 22:08	05:44 21:55	06:47 20:54	07:48 18:14	07:55 16:06	08:33 (C1) 16:06
17	08:39 16:14	07:40 17:21	06:29 18:22	08:08 (C1)	06:07 20:26	05:04 21:27	04:49 22:09	05:47 21:54	06:49 20:52	07:50 18:12	07:57 16:04	08:32 (C1) 16:04
18	08:38 16:16	07:38 17:23	06:26 18:24	08:05 (C1)	06:04 20:28	05:03 21:29	04:51 22:09	05:49 21:53	06:51 20:50	07:52 18:09	07:59 16:02	08:31 (C1) 16:02
19	08:36 16:18	07:36 17:25	06:24 18:26	08:03 (C1)	06:02 20:30	05:02 21:31	04:52 22:09	05:51 21:51	06:53 20:47	07:55 18:07	07:59 16:01	08:32 (C1) 16:01
20	08:35 16:20	07:33 17:28	06:21 18:28	08:01 (C1)	06:01 20:33	05:03 21:33	04:54 22:10	05:53 21:50	06:55 20:45	07:57 18:04	07:59 16:04	08:31 (C1) 16:04
21	08:33 16:22	07:31 17:30	06:18 18:30	08:01 (C1)	06:01 20:35	05:05 21:35	04:56 22:10	05:55 21:48	06:57 20:42	07:59 18:02	07:59 16:02	08:31 (C1) 16:02
22	08:32 16:24	07:28 17:32	06:15 18:32	08:00 (C1)	06:01 20:37	05:06 21:37	04:57 22:10	06:57 21:46	06:59 20:40	08:01 17:59	08:07 16:01	08:31 (C1) 16:01
23	08:30 16:26	07:26 17:34	06:13 18:34	08:00 (C1)	06:01 20:39	05:08 21:38	04:59 22:10	07:01 21:45	07:01 20:37	08:03 17:57	08:09 16:01	08:34 (C1) 16:01
24	08:29 16:28	07:23 17:37	06:10 18:36	08:00 (C1)	06:01 20:41	05:09 21:40	05:01 22:11	07:03 21:43	07:03 20:35	08:05 17:52	08:11 16:01	08:36 (C1) 16:01
25	08:27 16:30	07:21 17:39	06:07 18:38	08:01 (C1)	06:07 20:43	05:17 21:42	05:03 22:11	07:05 21:41	07:05 20:32	08:07 17:52	08:13 16:01	07:38 (C1) 16:01
26	08:26 16:32	07:18 17:41	06:05 18:41	08:01 (C1)	06:05 20:45	05:18 21:43	05:04 22:10	07:07 21:39	07:07 20:30	08:10 17:50	08:15 16:01	07:41 (C1) 16:01
27	08:24 16:34	07:16 17:43	06:02 18:43	08:01 (C1)	06:02 20:47	05:19 21:45	05:06 22:10	07:09 21:38	07:09 20:27	08:12 17:47	08:17 16:01	07:47 (C1) 16:01
28	08:22 16:36	07:13 17:45	05:59 18:45	08:03 (C1)	05:59 20:49	05:20 21:47	05:08 22:10	07:11 21:36	07:11 20:24	08:14 17:45	08:19 16:01	07:48 (C1) 16:01
29	08:20 16:39		06:57 19:47	08:19 (C1)	06:57 20:51	06:37 21:48	06:11 22:10	07:13 21:34	07:13 20:22	08:16 17:43	08:21 16:01	07:49 (C1) 16:01
30	08:19 16:41		06:54 19:49		06:54 20:53	06:38 21:50	06:13 22:10	07:15 21:32	07:15 20:19	08:18 17:56	08:23 16:01	07:51 (C1) 16:01
31	08:17 16:43		06:51 19:51		06:51 21:51	06:43 21:51	06:15 21:30	07:16 20:17	07:16 20:17	08:20 16:38	08:24 16:01	07:52 (C1) 16:01
Potential sun hours	235	266	366		426	508	529	529	469	385	324	247
Total, worst case		239	19							263		216
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	5							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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 15:38
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:
09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	04:36 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	05:17 21:26	06:19 20:11	07:19 18:51	23 16:34	08:24 15:44
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	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	22 16:31	08:23 15:43
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	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	22 16:29	08:24 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 19:01	05:23 21:04	04:32 21:58	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	21 16:27	08:23 15:41
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	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	17 16:25	08:22 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	07:30 18:38	14 16:23	08:21 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 19:55	07:32 18:35	10 16:21	08:19 15:40
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	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	6 16:19	08:18 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 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30		08:38 15:39
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	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27		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	04:27 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	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		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	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19		08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:02 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	06:32 18:20	06:09 20:24	05:00 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	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	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		08:46 15:38
19	08:36 16:18	07:36 17:25	06:24 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	07:55 18:07		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		08:48 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:51 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02		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	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59		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	09:08 (C1)	08:09 15:55
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	10 14	08:11 15:53
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	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	17 17	08:13 15:52
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	05:04 21:39	06:05 20:30	07:07 19:07	08:09 17:50	20 20	08:15 15:51
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	21 21	08:17 15:49
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	08:14 17:45	22 22	08:19 15:48
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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	07:15 20:19	07:18 18:56	08:18 17:40	23 23	08:23 15:46
31	08:17 16:43		06:51 19:51		04:37 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 16:38	08:01 16:25	24 24	08:24 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		308								174		
Sun reduction		0.20								0.26		
Oper. time red.		0.98								0.98		
Wind dir. red.		0.61								0.61		
Total reduction		0.12								0.15		
Total, real		37								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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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	05:44 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		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 20:06	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 20:06	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		08:21 17:38		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:31 15:42
5	08:49 15:53	08:07 16:54	3	08:42 (C13)	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	05:23 22:07	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)	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	05:25 22:06	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)	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	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	16	08:30 (C13)	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	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	20	08:29 (C13)	06:50 18:05	06:28 20:10	05:15 21:12	04:28 22:02	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	08:29 (C13)	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	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)	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	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	22	08:28 (C13)	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	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	23	08:27 (C13)	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	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	08:27 (C13)	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:07	05:41 21:05	06:43 19:39	07:44 18:20	08:43 15:38
15	08:41 16:10	07:45 17:17	23	08:26 (C13)	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	05:43 21:07	06:45 19:37	07:46 18:17	08:44 15:38
16	08:40 16:12	07:43 17:19	22	08:26 (C13)	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	05:45 21:05	06:47 19:34	07:48 18:14	08:45 15:38
17	08:39 16:14	07:40 17:21	21	08:25 (C13)	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	05:47 21:02	06:49 19:31	07:50 18:12	08:46 15:38
18	08:38 16:16	07:38 17:23	19	08:31 (C13)	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	05:49 21:05	06:51 19:29	07:53 18:09	08:47 15:38
19	08:36 16:18	07:36 17:26	16	08:33 (C13)	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	05:51 21:07	06:53 19:26	07:55 18:07	08:47 15:38
20	08:35 16:20	07:33 17:28	13	08:36 (C13)	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	05:53 21:05	06:55 19:23	07:57 18:04	08:48 15:39
21	08:33 16:22	07:31 17:30	7	08:43 (C13)	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	05:55 21:07	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 21:04	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 21:03	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	06:01 21:03	07:03 19:12	08:05 17:55	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 22:10	06:03 21:03	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	06:05 21:03	07:07 19:07	08:09 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	06:07 21:04	07:09 19:04	08:11 17:48	08:51 15:43
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30	08:19 16:41				06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	06:13 21:03	07:15 19:05	08:17 17:41	08:51 15:46
31	08:17 16:43				06:51 19:51		04:37 21:51		06:15 21:07	07:20 19:16	08:19 17:38	08:51 15:47
Potential sun hours	235	266		366	426	508	529	529	469	385	324	216
Total, worst case		292									192	99
Sun reduction		0.20									0.26	0.08
Oper. time red.		0.98									0.98	0.08
Wind dir. red.		0.61									0.61	0.05
Total reduction		0.12									0.16	0.05
Total, real		35									30	5

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

Shadow receptor: Birtzalas - 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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	59 10:13 (C14)	17:48	19:53		20:55	21:53		
2	08:50		08:13	08:44 (C15)	07:08	06:46		05:30	04:35		
	15:49		16:48	60 10:13 (C14)	17:50	19:55		20:57	21:54		
3	08:50		08:11	08:43 (C15)	07:06	06:43	07:18 (C13)	05:28	04:34		
	15:51		16:50	62 10:13 (C14)	17:52	19:57	10 07:28 (C13)	21:00	21:55		
4	08:50		08:09	08:43 (C15)	07:03	06:41	07:14 (C13)	05:26	04:33		
	15:52		16:52	62 10:13 (C14)	17:54	19:59	17 07:31 (C13)	21:02	21:57		
5	08:49		08:07	08:43 (C15)	07:01	06:38	07:11 (C13)	05:23	04:32		
	15:53		16:54	62 10:13 (C14)	17:56	20:01	22 07:33 (C13)	21:04	21:58		
6	08:49		08:05	08:43 (C15)	06:58	06:35	07:09 (C13)	05:21	04:31		
	15:55		16:56	61 10:12 (C14)	17:58	20:03	26 07:35 (C13)	21:06	21:59		
7	08:48		08:03	08:43 (C15)	06:55	06:33	07:07 (C13)	05:19	04:30		
	15:56		16:59	59 10:11 (C14)	18:01	20:06	28 07:35 (C13)	21:08	22:00		
8	08:48	09:42 (C14)	08:01	08:43 (C15)	06:53	06:30	07:06 (C13)	05:17	04:29		
	15:58	8 09:50 (C14)	17:01	58 10:11 (C14)	18:03	20:08	31 07:37 (C13)	21:10	22:01		
9	08:47	09:40 (C14)	07:58	08:43 (C15)	06:50	06:28	07:05 (C13)	05:15	04:29		
	16:00	12 09:52 (C14)	17:03	55 10:09 (C14)	18:05	20:10	32 07:37 (C13)	21:12	22:02		
10	08:46	09:39 (C14)	07:56	08:44 (C15)	06:47	06:25	07:03 (C13)	05:13	04:28		
	16:01	16 09:55 (C14)	17:05	52 10:09 (C14)	18:07	20:12	34 07:37 (C13)	21:14	22:03		
11	08:45	09:38 (C14)	07:54	08:45 (C15)	06:45	06:22	07:03 (C13)	05:11	04:27		
	16:03	19 09:57 (C14)	17:08	48 10:08 (C14)	18:09	20:14	35 07:38 (C13)	21:16	22:04		
12	08:44	09:37 (C14)	07:52	08:45 (C15)	06:42	06:20	07:02 (C13)	05:09	04:27		
	16:05	21 09:58 (C14)	17:10	43 10:05 (C14)	18:11	20:16	35 07:37 (C13)	21:18	22:05		
13	08:43	09:36 (C14)	07:50	08:47 (C15)	06:40	06:17	07:02 (C13)	05:07	04:26		
	16:06	23 09:59 (C14)	17:12	36 10:03 (C14)	18:13	20:18	36 07:38 (C13)	21:20	22:06		
14	08:42	09:36 (C14)	07:47	08:48 (C15)	06:37	06:15	07:01 (C13)	05:05	04:26		
	16:08	25 10:01 (C14)	17:14	27 10:00 (C14)	18:15	20:20	36 07:37 (C13)	21:22	22:07		
15	08:41	09:35 (C14)	07:45	08:51 (C15)	06:34	06:12	07:01 (C13)	05:03	04:26		
	16:10	27 10:02 (C14)	17:17	9 09:00 (C15)	18:18	20:22	36 07:37 (C13)	21:24	22:07		
16	08:40	09:34 (C14)	07:43		06:32	06:09	07:01 (C13)	05:01	04:26		
	16:12	29 10:03 (C14)	17:19		18:20	20:24	35 07:36 (C13)	21:25	22:08		
17	08:39	09:35 (C14)	07:40		06:29	06:07	07:01 (C13)	04:59	04:25		
	16:14	30 10:05 (C14)	17:21		18:22	20:26	35 07:36 (C13)	21:27	22:08		
18	08:37	09:34 (C14)	07:38		06:26	06:04	07:00 (C13)	04:57	04:25		
	16:16	31 10:05 (C14)	17:23		18:24	20:28	35 07:35 (C13)	21:29	22:09		
19	08:36	09:33 (C14)	07:36		06:24	06:02	07:01 (C13)	04:55	04:25		
	16:18	33 10:06 (C14)	17:26		18:26	20:30	34 07:35 (C13)	21:31	22:09		
20	08:35	09:33 (C14)	07:33		06:21	05:59	07:02 (C13)	04:53	04:25		
	16:20	35 10:08 (C14)	17:28		18:28	20:33	32 07:34 (C13)	21:33	22:10		
21	08:33	09:33 (C14)	07:31		06:18	05:57	07:02 (C13)	04:52	04:25		
	16:22	35 10:08 (C14)	17:30		18:30	20:35	31 07:33 (C13)	21:35	22:10		
22	08:32	09:32 (C14)	07:28		06:16	05:54	07:03 (C13)	04:50	04:26		
	16:24	37 10:09 (C14)	17:32		18:32	20:37	29 07:32 (C13)	21:37	22:10		
23	08:30	09:32 (C14)	07:26		06:13	05:52	07:03 (C13)	04:48	04:26		
	16:26	37 10:09 (C14)	17:34		18:34	20:39	27 07:30 (C13)	21:38	22:10		
24	08:29	09:33 (C14)	07:23		06:10	05:49	07:04 (C13)	04:47	04:26		
	16:28	38 10:11 (C14)	17:37		18:36	20:41	25 07:29 (C13)	21:40	22:10		
25	08:27	09:33 (C14)	07:21		06:08	05:47	07:06 (C13)	04:45	04:26		
	16:30	38 10:11 (C14)	17:39		18:38	20:43	21 07:27 (C13)	21:42	22:10		
26	08:26	09:32 (C14)	07:18		06:05	05:44	07:07 (C13)	04:44	04:27		
	16:32	40 10:12 (C14)	17:41		18:41	20:45	17 07:24 (C13)	21:43	22:10		
27	08:24	09:32 (C14)	07:16		06:02	05:42	07:11 (C13)	04:42	04:27		
	16:34	40 10:12 (C14)	17:43		18:43	20:47	10 07:21 (C13)	21:45	22:10		
28	08:22	08:54 (C15)	07:13		05:59	05:40		04:41	04:28		
	16:37	43 10:13 (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	47 10:13 (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	51 10:13 (C14)			19:49	20:53		21:50	22:09		
31	08:17	08:48 (C15)			06:51			04:37			
	16:43	56 10:14 (C14)			19:51			21:51			
Potential sun hours	235		266		366	426		508	529		
Total, worst case	771		753			709					
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	59		87			222					

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:02 (C13) 07:37 (C13)	07:17 18:54	07:23 16:36	08:13 (C15) 09:39 (C14)	08:24 15:45	09:20 (C14) 19:39 (C14)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:02 (C13) 07:36 (C13)	07:19 18:51	07:25 16:34	08:13 (C15) 09:39 (C14)	08:26 15:44	09:22 (C14) 16:38 (C14)
3	04:32 22:08	05:20 21:24	06:21 20:09	07:03 (C13) 07:35 (C13)	07:21 18:48	07:27 16:32	08:13 (C15) 09:41 (C14)	08:28 15:43	09:23 (C14) 13:36 (C14)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:03 (C13) 07:34 (C13)	07:23 18:46	07:29 16:29	08:13 (C15) 09:41 (C14)	08:29 15:42	09:26 (C14) 8:34 (C14)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:04 (C13) 07:32 (C13)	07:25 18:43	07:31 16:27	08:12 (C15) 09:41 (C14)	08:31 15:42	
6	04:35 22:06	05:25 21:17	06:27 20:01	07:05 (C13) 07:31 (C13)	07:27 18:40	07:33 16:25	08:13 (C15) 09:43 (C14)	08:32 15:41	
7	04:36 22:05	05:27 21:15	06:29 19:58	07:06 (C13) 07:28 (C13)	07:30 18:38	07:36 16:23	08:13 (C15) 09:43 (C14)	08:34 15:40	
8	04:37 22:04	05:29 21:13	06:31 19:55	07:08 (C13) 07:25 (C13)	07:32 18:35	07:38 16:21	08:14 (C15) 09:44 (C14)	08:35 15:40	
9	04:38 22:03	05:31 21:11	06:33 19:53	07:11 (C13) 07:21 (C13)	07:34 18:32	07:40 16:19	08:15 (C15) 09:44 (C14)	08:37 15:39	
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:36 16:17	07:42 16:17	08:17 (C15) 09:45 (C14)	08:38 15:39	
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:38 16:15	07:44 16:15	08:19 (C15) 09:44 (C14)	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	07:46 16:13	08:21 (C15) 09:44 (C14)	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	07:49 16:11	08:24 (C15) 09:45 (C14)	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	07:51 16:09	08:26 (C15) 09:44 (C14)	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	07:53 16:08	09:04 (C14) 09:44 (C14)	08:44 15:38	
16	04:48 21:55	05:45 20:54	07:17 (C13) 19:34	06:47 18:14	07:55 16:06	07:55 16:06	09:05 (C14) 09:45 (C14)	08:45 15:38	
17	04:49 21:54	05:47 20:52	07:14 (C13) 19:31	06:49 18:12	07:57 16:04	07:57 16:04	09:05 (C14) 09:44 (C14)	08:46 15:38	
18	04:51 21:52	05:49 20:50	07:11 (C13) 19:29	06:51 18:09	07:52 16:02	07:59 16:02	09:07 (C14) 09:45 (C14)	08:46 15:38	
19	04:53 21:51	05:51 20:47	07:10 (C13) 19:26	06:53 18:07	07:55 16:01	08:01 16:01	09:07 (C14) 09:44 (C14)	08:47 15:38	
20	04:54 21:49	05:53 20:45	07:08 (C13) 19:23	06:55 18:04	07:57 15:59	08:03 15:59	09:07 (C14) 09:44 (C14)	08:48 15:39	
21	04:56 21:48	05:55 20:42	07:07 (C13) 19:21	06:57 18:02	07:59 15:58	08:05 15:58	09:08 (C14) 09:43 (C14)	08:48 15:39	
22	04:58 21:46	05:57 20:40	07:06 (C13) 19:18	06:59 18:00	08:07 15:56	08:07 15:56	09:09 (C14) 09:44 (C14)	08:49 15:40	
23	04:59 21:45	05:59 20:37	07:05 (C13) 19:15	07:01 17:57	08:09 15:55	08:09 15:55	09:10 (C14) 09:43 (C14)	08:50 15:40	
24	05:01 21:43	06:01 20:35	07:05 (C13) 19:12	07:03 17:55	08:11 15:53	08:11 15:53	09:11 (C14) 09:43 (C14)	08:50 15:41	
25	05:03 21:41	06:03 20:32	07:04 (C13) 19:10	07:05 17:52	08:13 15:52	08:13 15:52	09:12 (C14) 09:42 (C14)	08:50 15:41	
26	05:05 21:39	06:05 20:30	07:04 (C13) 19:07	07:07 17:50	08:15 15:51	08:15 15:51	09:13 (C14) 09:41 (C14)	08:51 15:42	
27	05:06 21:38	06:07 20:27	07:02 (C13) 19:04	07:09 17:48	08:17 15:49	08:17 15:49	09:15 (C14) 09:42 (C14)	08:51 15:43	
28	05:08 21:36	06:09 20:24	07:02 (C13) 19:02	07:11 17:46	08:19 15:48	08:19 15:48	09:16 (C14) 09:41 (C14)	08:51 15:44	
29	05:10 21:34	06:11 20:22	07:02 (C13) 18:59	07:13 17:43	08:21 15:47	08:21 15:47	09:17 (C14) 09:40 (C14)	08:51 15:45	
30	05:12 21:32	06:13 20:19	07:02 (C13) 18:56	07:15 17:41	08:22 15:46	08:22 15:46	09:18 (C14) 09:40 (C14)	08:51 15:46	
31	05:14 21:30	06:15 20:17	07:02 (C13) 07:37 (C13)	07:17 16:38	08:14 (C15) 09:38 (C14)	08:14 (C15) 09:38 (C14)	09:40 (C14)	08:51 15:47	
Potential sun hours	529	469	385	324	247	216			
Total, worst case		483	235	174	1310	56			
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		151	63	26	62	2			

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)

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Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		06:51 (C13)	04:36		
	15:48		16:45	45	10:01 (C14)	17:48		19:53				20:55	21	07:12 (C13)	21:53		
2	08:50		08:13		08:43 (C15)	07:08		06:46				05:30		06:53 (C13)	04:35		
	15:49		16:48	51	10:02 (C14)	17:50		19:55				20:57	17	07:10 (C13)	21:54		
3	08:50		08:11		08:41 (C15)	07:06		06:43				05:28		06:56 (C13)	04:34		
	15:51		16:50	55	10:02 (C14)	17:52		19:57				21:00	11	07:07 (C13)	21:55		
4	08:50		08:09		08:39 (C15)	07:03		06:41				05:26			04:33		
	15:52		16:52	59	10:03 (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	10:03 (C14)	17:56		20:01				21:04			21:58		
6	08:49		08:05		08:35 (C15)	06:58		06:35				05:21			04:31		
	15:55		16:56	65	10:03 (C14)	17:58		20:03				21:06			21:59		
7	08:48		08:03		08:35 (C15)	06:55		06:33				05:19			04:30		
	15:56		16:59	65	10:03 (C14)	18:01		20:06				21:08			22:00		
8	08:48		08:01		08:35 (C15)	06:53		06:30		07:06 (C13)		05:17			04:29		
	15:58		17:01	65	10:03 (C14)	18:03		20:08	4	07:10 (C13)		21:10			22:01		
9	08:47		07:58		08:34 (C15)	06:50		06:28		07:00 (C13)		05:15			04:29		
	16:00		17:03	66	10:02 (C14)	18:05		20:10	15	07:15 (C13)		21:12			22:02		
10	08:46		07:56		08:35 (C15)	06:47		06:25		06:57 (C13)		05:13			04:28		
	16:01		17:05	64	10:02 (C14)	18:07		20:12	20	07:17 (C13)		21:14			22:03		
11	08:45		07:54		08:35 (C15)	06:45		06:22		06:55 (C13)		05:11			04:27		
	16:03		17:08	64	10:02 (C14)	18:09		20:14	24	07:19 (C13)		21:16			22:04		
12	08:44		07:52		08:35 (C15)	06:42		06:20		06:53 (C13)		05:09			04:27		
	16:05		17:10	62	10:01 (C14)	18:11		20:16	27	07:20 (C13)		21:18			22:05		
13	08:43		07:50		08:36 (C15)	06:40		06:17		06:52 (C13)		05:07			04:26		
	16:06		17:12	59	10:00 (C14)	18:13		20:18	29	07:21 (C13)		21:20			22:06		
14	08:42		07:47		08:36 (C15)	06:37		06:15		06:50 (C13)		05:05			04:26		
	16:08		17:14	56	09:59 (C14)	18:15		20:20	31	07:21 (C13)		21:22			22:07		
15	08:41		07:45		08:37 (C15)	06:34		06:12		06:50 (C13)		05:03			04:26		
	16:10		17:17	52	09:58 (C14)	18:18		20:22	32	07:22 (C13)		21:24			22:07		
16	08:40		07:43		08:37 (C15)	06:32		06:09		06:48 (C13)		05:01			04:26		
	16:12	8	09:41 (C14)	48	09:56 (C14)	18:20		20:24	34	07:22 (C13)		21:25			22:08		
17	08:39		07:40		08:39 (C15)	06:29		06:07		06:48 (C13)		04:59			04:25		
	16:14	14	09:44 (C14)	41	09:54 (C14)	18:22		20:26	35	07:23 (C13)		21:27			22:08		
18	08:37		07:38		08:41 (C15)	06:26		06:04		06:47 (C13)		04:57			04:25		
	16:16	18	09:47 (C14)	32	09:52 (C14)	18:24		20:28	35	07:22 (C13)		21:29			22:09		
19	08:36		07:36		09:34 (C14)	06:24		06:02		06:47 (C13)		04:55			04:25		
	16:18	21	09:48 (C14)	15	09:49 (C14)	18:26		20:30	36	07:23 (C13)		21:31			22:09		
20	08:35		07:33			06:21		05:59		06:47 (C13)		04:53			04:25		
	16:20	25	09:51 (C14)			18:28		20:33	36	07:23 (C13)		21:33			22:10		
21	08:33		07:31			06:18		05:57		06:46 (C13)		04:52			04:25		
	16:22	27	09:52 (C14)			18:30		20:35	36	07:22 (C13)		21:35			22:10		
22	08:32		07:28			06:16		05:54		06:47 (C13)		04:50			04:26		
	16:24	29	09:53 (C14)			18:32		20:37	35	07:22 (C13)		21:37			22:10		
23	08:30		07:26			06:13		05:52		06:46 (C13)		04:48			04:26		
	16:26	31	09:54 (C14)			18:34		20:39	35	07:21 (C13)		21:38			22:10		
24	08:29		07:23			06:10		05:49		06:46 (C13)		04:47			04:26		
	16:28	32	09:56 (C14)			18:36		20:41	35	07:21 (C13)		21:40			22:10		
25	08:27		07:21			06:08		05:47		06:47 (C13)		04:45			04:26		
	16:30	34	09:57 (C14)			18:38		20:43	33	07:20 (C13)		21:42			22:10		
26	08:26		07:18			06:05		05:44		06:47 (C13)		04:44			04:27		
	16:32	36	09:58 (C14)			18:41		20:45	32	07:19 (C13)		21:43			22:10		
27	08:24		07:16			06:02		05:42		06:47 (C13)		04:42			04:27		
	16:34	37	09:59 (C14)			18:43		20:47	31	07:18 (C13)		21:45			22:10		
28	08:22		07:13			05:59		05:40		06:48 (C13)		04:41			04:28		
	16:37	38	10:00 (C14)			18:45		20:49	29	07:17 (C13)		21:47			22:10		
29	08:20					06:57		05:37		06:49 (C13)		04:40			04:29		
	16:39	39	10:00 (C14)			19:47		20:51	27	07:16 (C13)		21:48			22:10		
30	08:18					06:54		05:35		06:50 (C13)		04:38			04:29		
	16:41	40	10:01 (C14)			19:49		20:53	24	07:14 (C13)		21:50			22:09		
31	08:17					06:51						04:37					
	16:43	41	10:02 (C14)			19:51						21:51					
Potential sun hours	235		266			366		426				508			529		
Total, worst case	470		1026					675				49					
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	36		119					212				17					

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)
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09/04/2024 19:14/4.0.531

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:54 (C13)	07:17	07:23
	22:09	21:28	20:14	24 07:18 (C13)	18:54	16:36
2	04:31	05:18	06:19	06:56 (C13)	07:19	07:25
	22:08	21:26	20:11	20 07:16 (C13)	18:51	16:34
3	04:32	05:20	06:21	06:58 (C13)	07:21	07:27
	22:08	21:24	20:09	15 07:13 (C13)	18:48	16:32
4	04:33	05:22	06:23	07:03 (C13)	07:23	07:29
	22:07	21:22	20:06	4 07:07 (C13)	18:46	16:29
5	04:34	05:23	06:25	07:25	18:43	16:27
	22:07	21:20	20:03	07:27	18:35	16:25
6	04:35	05:25	06:27	18:40	16:23	16:22
	22:06	21:17	20:01	07:30	18:38	16:20
7	04:36	05:27	06:29	18:38	16:19	16:19
	22:05	21:15	19:58	07:32	18:35	16:17
8	04:37	05:29	06:31	18:35	16:15	16:15
	22:04	21:13	19:55	07:34	18:32	16:13
9	04:38	05:31	07:09 (C13)	06:33	07:34	16:11
	22:03	21:11	4 07:13 (C13)	19:53	18:32	16:09
10	04:39	05:33	07:04 (C13)	06:35	07:36	16:07
	22:02	21:08	14 07:18 (C13)	19:50	18:30	16:05
11	04:41	05:35	07:01 (C13)	06:37	07:38	16:03
	22:01	21:06	18 07:19 (C13)	19:47	18:27	16:01
12	04:42	05:37	06:59 (C13)	06:39	07:40	16:00
	22:00	21:04	22 07:21 (C13)	19:45	18:25	15:58
13	04:43	05:39	06:58 (C13)	06:41	07:42	15:56
	21:59	21:02	25 07:23 (C13)	19:42	18:22	15:54
14	04:45	05:41	06:57 (C13)	06:43	07:44	15:52
	21:58	20:59	27 07:24 (C13)	19:39	18:20	15:50
15	04:46	05:43	06:56 (C13)	06:45	07:46	15:48
	21:57	20:57	29 07:25 (C13)	19:37	18:17	15:46
16	04:48	05:45	06:55 (C13)	06:47	07:48	15:44
	21:55	20:54	31 07:26 (C13)	19:34	18:14	15:42
17	04:49	05:47	06:54 (C13)	06:49	07:50	15:40
	21:54	20:52	32 07:26 (C13)	19:31	18:12	15:38
18	04:51	05:49	06:52 (C13)	06:51	07:52	15:36
	21:52	20:50	34 07:26 (C13)	19:29	18:09	15:34
19	04:53	05:51	06:52 (C13)	06:53	07:55	15:32
	21:51	20:47	34 07:26 (C13)	19:26	18:07	15:30
20	04:54	05:53	06:51 (C13)	06:55	07:57	15:28
	21:49	20:45	35 07:26 (C13)	19:23	18:04	15:26
21	04:56	05:55	06:51 (C13)	06:57	07:59	15:24
	21:48	20:42	36 07:27 (C13)	19:21	18:02	15:22
22	04:58	05:57	06:51 (C13)	06:59	08:01	15:20
	21:46	20:40	36 07:27 (C13)	19:18	18:00	15:18
23	04:59	05:59	06:51 (C13)	07:01	08:03	15:16
	21:45	20:37	36 07:27 (C13)	19:15	17:57	15:14
24	05:01	06:01	06:51 (C13)	07:03	08:05	15:12
	21:43	20:35	35 07:26 (C13)	19:12	17:55	15:10
25	05:03	06:03	06:51 (C13)	07:05	08:07	15:08
	21:41	20:32	35 07:26 (C13)	19:10	16:52	15:06
26	05:05	06:05	06:51 (C13)	07:07	08:09	15:04
	21:39	20:30	34 07:25 (C13)	19:07	16:50	15:02
27	05:06	06:07	06:50 (C13)	07:09	08:11	15:00
	21:38	20:27	34 07:24 (C13)	19:04	16:48	14:58
28	05:08	06:09	06:51 (C13)	07:11	08:13	14:56
	21:36	20:24	32 07:23 (C13)	19:02	16:46	14:54
29	05:10	06:11	06:51 (C13)	07:13	08:15	14:52
	21:34	20:22	31 07:22 (C13)	18:59	16:43	14:50
30	05:12	06:13	06:52 (C13)	07:15	08:17	14:48
	21:32	20:19	29 07:21 (C13)	18:56	16:41	14:46
31	05:14	06:15	06:53 (C13)		08:19	14:44
	21:30	20:17	27 07:20 (C13)		16:38	14:42
Potential sun hours	529	469	385	324	247	216
Total, worst case		670	63	451	1067	
Sun reduction		0.50	0.43	0.26	0.08	
Oper. time red.		0.98	0.98	0.98	0.98	
Wind dir. red.		0.66	0.66	0.60	0.60	
Total reduction		0.31	0.27	0.15	0.05	
Total, real		210	17	67	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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	05:45 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)	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:08 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	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 20:54	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 17:38		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
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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
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Total, worst case												
Sun reduction												
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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:

09/04/2024 19:14/4.0.531

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
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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	06:51 (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	06:51 (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
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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	07:04 (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	07:34 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 21:08	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 16:03	07:52 17:08	06:42 18:09	06:20 20:14	05:09 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:48	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	05:07 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	04:46 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 21:25	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	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 21:37	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	07:00 (C14) 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	06:57 (C14) 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	06:56 (C14) 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	06:54 (C14) 19:07	08:09 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	05:07 21:38	06:07 20:27	06:53 (C14) 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	06:52 (C14) 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:47	06:57 18:41	05:37 20:49	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	06:51 (C14) 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:09 17:49	06:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	06:51 (C14) 18:56	08:17 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:07 17:51	06:52 18:51	05:34 20:53	04:37 21:51	04:30 22:10	05:14 20:17	06:15 20:17	06:51 (C14) 18:56	08:18 16:38	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case				290				176	116			
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				93				57	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

January			February			March			April			May			June		
1	08:51		09:57 (C14)	08:15	07:11				06:49		08:07 (C13)	05:33	04:36				
	15:48	32	10:29 (C14)	16:45	17:48				19:53	18	08:25 (C13)	20:55	21:53				
2	08:50		09:58 (C14)	08:13	07:08				06:46		08:10 (C13)	05:30	04:35				
	15:49	32	10:30 (C14)	16:48	17:50				19:55	11	08:21 (C13)	20:58	21:54				
3	08:50		09:58 (C14)	08:11	07:06				06:43			05:28	04:34				
	15:51	32	10:30 (C14)	16:50	17:52				19:57			21:00	21:55				
4	08:50		09:58 (C14)	08:09	07:03				06:41			05:26	04:33				
	15:52	32	10:30 (C14)	16:52	17:54				19:59			21:02	21:57				
5	08:49		09:59 (C14)	08:07	07:01				06:38			05:23	04:32				
	15:53	32	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	33	10:32 (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		10:00 (C14)	08:01	06:53				06:30			05:17	04:29				
	15:58	33	10:33 (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	33	10:33 (C14)	17:03	18:05				20:10			21:12	22:02				
10	08:46		10:01 (C14)	07:56	06:47				06:25			05:13	04:28				
	16:01	33	10:34 (C14)	17:05	18:07				20:12			21:14	22:03				
11	08:45		10:01 (C14)	07:54	06:45				06:22			05:11	04:27				
	16:03	33	10:34 (C14)	17:08	18:09				20:14			21:16	22:04				
12	08:44		10:02 (C14)	07:52	06:42			07:18 (C13)	06:20			05:09	04:27				
	16:05	33	10:35 (C14)	17:10	18:11	10		07:28 (C13)	20:16			21:18	22:05				
13	08:43		10:01 (C14)	07:50	06:40			07:14 (C13)	06:17			05:07	04:26				
	16:06	33	10:34 (C14)	17:12	18:13	17		07:31 (C13)	20:18			21:20	22:06				
14	08:42		10:02 (C14)	07:47	06:37			07:11 (C13)	06:15			05:05	04:26				
	16:08	33	10:35 (C14)	17:14	18:15	22		07:33 (C13)	20:20			21:22	22:07				
15	08:41		10:02 (C14)	07:45	06:34			07:09 (C13)	06:12			05:03	04:26				
	16:10	33	10:35 (C14)	17:17	18:18	26		07:35 (C13)	20:22			21:24	22:07				
16	08:40		10:03 (C14)	07:43	06:32			07:08 (C13)	06:09			05:01	04:26				
	16:12	32	10:35 (C14)	17:19	18:20	28		07:36 (C13)	20:24			21:25	22:08				
17	08:39		10:04 (C14)	07:40	06:29			07:06 (C13)	06:07			04:59	04:25				
	16:14	32	10:36 (C14)	17:21	18:22	30		07:36 (C13)	20:26			21:27	22:08				
18	08:38		10:04 (C14)	07:38	06:26			07:04 (C13)	06:04			04:57	04:25				
	16:16	32	10:36 (C14)	17:23	18:24	32		07:36 (C13)	20:28			21:29	22:09				
19	08:36		10:05 (C14)	07:36	06:24			07:04 (C13)	06:02			04:55	04:25				
	16:18	30	10:35 (C14)	17:26	18:26	33		07:37 (C13)	20:30			21:31	22:09				
20	08:35		10:06 (C14)	07:33	06:21			07:03 (C13)	05:59			04:53	04:25				
	16:20	30	10:36 (C14)	17:28	18:28	34		07:37 (C13)	20:33			21:33	22:10				
21	08:33		10:06 (C14)	07:31	06:18			07:02 (C13)	05:57			04:52	04:25				
	16:22	29	10:35 (C14)	17:30	18:30	35		07:37 (C13)	20:35			21:35	22:10				
22	08:32		10:07 (C14)	07:28	06:16			07:02 (C13)	05:54			04:50	04:26				
	16:24	28	10:35 (C14)	17:32	18:32	35		07:37 (C13)	20:37			21:37	22:10				
23	08:30		10:08 (C14)	07:26	06:13			07:02 (C13)	05:52			04:48	04:26				
	16:26	26	10:34 (C14)	17:34	18:34	35		07:37 (C13)	20:39			21:38	22:10				
24	08:29		10:10 (C14)	07:23	06:10			07:01 (C13)	05:49			04:47	04:26				
	16:28	24	10:34 (C14)	17:37	18:36	35		07:36 (C13)	20:41			21:40	22:10				
25	08:27		10:11 (C14)	07:21	06:08			07:02 (C13)	05:47			04:45	04:26				
	16:30	22	10:33 (C14)	17:39	18:38	34		07:36 (C13)	20:43			21:42	22:10				
26	08:26		10:12 (C14)	07:18	06:05			07:02 (C13)	05:44			04:44	04:27				
	16:32	20	10:32 (C14)	17:41	18:41	33		07:35 (C13)	20:45			21:43	22:10				
27	08:24		10:14 (C14)	07:16	06:02			07:02 (C13)	05:42			04:42	04:27				
	16:34	17	10:31 (C14)	17:43	18:43	32		07:34 (C13)	20:47			21:45	22:10				
28	08:22		10:17 (C14)	07:13	05:59			07:03 (C13)	05:40			04:41	04:28				
	16:37	12	10:29 (C14)	17:45	18:45	30		07:33 (C13)	20:49			21:47	22:10				
29	08:20				06:57			08:03 (C13)	05:37			04:40	04:29				
	16:39				19:47	28		08:31 (C13)	20:51			21:48	22:10				
30	08:19				06:54			08:04 (C13)	05:35			04:38	04:29				
	16:41				19:49	25		08:29 (C13)	20:53			21:50	22:09				
31	08:17				06:51			08:06 (C13)				04:37					
	16:43				19:51	22		08:28 (C13)				21:51					
Potential sun hours	235			266	366			426				508	529				
Total, worst case	824				576			29									
Sun reduction	0.13				0.41			0.50									
Oper. time red.	0.98				0.98			0.98									
Wind dir. red.	0.61				0.63			0.63									
Total reduction	0.08				0.25			0.30									
Total, real	65				144			9									

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:55 (C13) 08:09 (C13)	07:23 16:36
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:24 15:45
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:43 (C14) 10:16 (C14)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:44 (C14) 10:17 (C14)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:45 (C14) 10:17 (C14)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:45 (C14) 10:18 (C14)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:45 (C14) 10:18 (C14)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:46 (C14) 10:18 (C14)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:46 (C14) 10:18 (C14)
10	04:39 22:02	05:33 21:08	06:35 19:50	08:04 (C13) 08:14 (C13)	07:36 18:30	09:47 (C14) 10:19 (C14)
11	04:41 22:01	05:35 21:06	06:37 19:47	08:19 (C13) 08:17 (C13)	07:38 18:27	09:47 (C14) 10:19 (C14)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:57 (C13) 08:19 (C13)	07:40 18:25	09:49 (C14) 10:20 (C14)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:55 (C13) 08:20 (C13)	07:42 18:22	09:49 (C14) 10:20 (C14)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:54 (C13) 08:21 (C13)	07:44 18:20	09:49 (C14) 10:20 (C14)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:53 (C13) 08:22 (C13)	07:46 18:17	09:50 (C14) 10:20 (C14)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:51 (C13) 08:23 (C13)	07:48 18:14	09:50 (C14) 10:21 (C14)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 (C13) 08:23 (C13)	07:50 18:12	09:51 (C14) 10:21 (C14)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:50 (C13) 08:23 (C13)	07:52 18:09	09:52 (C14) 10:22 (C14)
19	04:53 21:51	05:51 20:47	06:53 19:26	07:49 (C13) 08:23 (C13)	07:55 18:07	09:52 (C14) 10:22 (C14)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:48 (C13) 08:23 (C13)	07:57 18:04	09:52 (C14) 10:22 (C14)
21	04:56 21:48	05:55 20:42	06:57 19:21	07:48 (C13) 08:23 (C13)	07:59 18:02	09:53 (C14) 10:23 (C14)
22	04:58 21:46	05:57 20:40	06:59 19:18	07:48 (C13) 08:22 (C13)	08:01 18:00	09:53 (C14) 10:23 (C14)
23	04:59 21:45	05:59 20:37	07:01 19:15	07:48 (C13) 08:22 (C13)	08:03 17:57	09:54 (C14) 10:24 (C14)
24	05:01 21:43	06:01 20:35	07:03 19:12	07:48 (C13) 08:21 (C13)	08:05 17:55	09:55 (C14) 10:24 (C14)
25	05:03 21:41	06:03 20:32	07:05 19:10	07:48 (C13) 08:20 (C13)	07:07 16:52	09:55 (C14) 10:25 (C14)
26	05:05 21:39	06:05 20:30	07:07 19:07	07:48 (C13) 08:19 (C13)	07:10 16:50	09:55 (C14) 10:25 (C14)
27	05:06 21:38	06:07 20:27	07:09 19:04	07:49 (C13) 08:18 (C13)	07:12 16:48	09:55 (C14) 10:26 (C14)
28	05:08 21:36	06:09 20:24	07:11 19:02	07:50 (C13) 08:16 (C13)	07:14 16:45	09:56 (C14) 10:26 (C14)
29	05:10 21:34	06:11 20:22	07:13 18:59	07:51 (C13) 08:14 (C13)	07:16 16:43	09:56 (C14) 10:27 (C14)
30	05:12 21:32	06:13 20:19	07:15 18:56	07:53 (C13) 08:12 (C13)	07:18 16:41	09:57 (C14) 10:28 (C14)
31	05:14 21:30	06:15 20:17		07:20 16:38		09:57 (C14) 10:29 (C14)
Potential sun hours	529	469	385	324	247	216
Total, worst case			593	14	470	966
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	0.61	0.61
Total reduction			0.26	0.16	0.05	0.04
Total, real			154	2	23	40

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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
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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		07:21 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:50 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
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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
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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
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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 20:34	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		07:12 (C1) 04:36
	15:48	16:45	17:47		19:53		20:55	16	07:28 (C1) 21:53
2	08:50	08:13	07:08		06:46		05:30		07:15 (C1) 04:35
	15:49	16:47	17:50		19:55		20:57	10	07:25 (C1) 21:54
3	08:50	08:11	07:06		06:43		05:28		04:34
	15:51	16:50	17:52		19:57		21:00		21:55
4	08:50	08:09	07:03		06:41		07:24 (C1) 05:26		04:33
	15:52	16:52	17:54		19:59	7	07:31 (C1) 21:02		21:57
5	08:49	08:07	07:00		06:38		07:18 (C1) 05:23		04:32
	15:53	16:54	17:56		20:01	17	07:35 (C1) 21:04		21:58
6	08:49	08:05	06:58		06:35		07:16 (C1) 05:21		04:31
	15:55	16:56	17:58		20:03	22	07:38 (C1) 21:06		21:59
7	08:48	08:03	06:55		06:33		07:13 (C1) 05:19		04:30
	15:56	16:59	18:00		20:05	27	07:40 (C1) 21:08		22:00
8	08:48	08:00	06:53		07:18 (C4) 06:30		07:11 (C1) 05:17		04:29
	15:58	17:01	18:03	6	07:24 (C4) 20:08	30	07:41 (C1) 21:10		22:01
9	08:47	07:58	06:50		07:16 (C4) 06:27		07:10 (C1) 05:15		04:28
	15:59	17:03	18:05	11	07:27 (C4) 20:10	32	07:42 (C1) 21:12		22:02
10	08:46	07:56	06:47		07:13 (C4) 06:25		07:08 (C1) 05:12		04:28
	16:01	17:05	18:07	15	07:28 (C4) 20:12	34	07:42 (C1) 21:14		22:03
11	08:45	07:54	06:45		07:10 (C4) 06:22		07:07 (C1) 05:10		04:27
	16:03	17:08	18:09	18	07:28 (C4) 20:14	37	07:44 (C1) 21:16		22:04
12	08:44	07:52	06:42		07:10 (C4) 06:20		07:06 (C1) 05:08		04:27
	16:04	17:10	18:11	20	07:30 (C4) 20:16	38	07:44 (C1) 21:18		22:05
13	08:43	07:49	06:39		07:09 (C4) 06:17		07:06 (C1) 05:06		04:26
	16:06	17:12	18:13	20	07:29 (C4) 20:18	38	07:44 (C1) 21:20		22:06
14	08:42	07:47	06:37		07:08 (C4) 06:14		07:05 (C1) 05:04		04:26
	16:08	17:14	18:15	21	07:29 (C4) 20:20	39	07:44 (C1) 21:22		22:07
15	08:41	07:45	06:34		07:07 (C4) 06:12		07:04 (C1) 05:02		04:26
	16:10	17:17	18:17	21	07:28 (C4) 20:22	41	07:45 (C1) 21:24		22:07
16	08:40	07:43	06:32		07:08 (C4) 06:09		07:03 (C1) 05:01		04:25
	16:12	17:19	18:20	20	07:28 (C4) 20:24	41	07:44 (C1) 21:25		22:08
17	08:39	07:40	06:29		07:08 (C4) 06:07		07:04 (C1) 04:59		04:25
	16:14	17:21	18:22	19	07:27 (C4) 20:26	40	07:44 (C1) 21:27		22:08
18	08:37	07:38	06:26		07:08 (C4) 06:04		07:03 (C1) 04:57		04:25
	16:16	17:23	18:24	18	07:26 (C4) 20:28	40	07:43 (C1) 21:29		22:09
19	08:36	07:35	06:23		07:10 (C4) 06:02		07:03 (C1) 04:55		04:25
	16:18	17:25	18:26	15	07:25 (C4) 20:30	40	07:43 (C1) 21:31		22:09
20	08:35	07:33	06:21		07:12 (C4) 05:59		07:02 (C1) 04:53		04:25
	16:20	17:28	18:28	10	07:22 (C4) 20:33	40	07:42 (C1) 21:33		22:10
21	08:33	07:31	06:18		05:57		07:03 (C1) 04:52		04:25
	16:22	17:30	18:30		20:35	39	07:42 (C1) 21:35		22:10
22	08:32	07:28	06:15		05:54		07:03 (C1) 04:50		04:25
	16:24	17:32	18:32		20:37	39	07:42 (C1) 21:37		22:10
23	08:30	07:26	06:13		05:52		07:03 (C1) 04:48		04:26
	16:26	17:34	18:34		20:39	37	07:40 (C1) 21:38		22:10
24	08:29	07:23	06:10		05:49		07:04 (C1) 04:47		04:26
	16:28	17:37	18:36		20:41	36	07:40 (C1) 21:40		22:10
25	08:27	07:21	06:07		05:47		07:05 (C1) 04:45		04:26
	16:30	17:39	18:38		20:43	34	07:39 (C1) 21:42		22:10
26	08:26	07:18	06:05		05:44		07:05 (C1) 04:44		04:27
	16:32	17:41	18:40		20:45	32	07:37 (C1) 21:43		22:10
27	08:24	07:16	06:02		05:42		07:06 (C1) 04:42		04:27
	16:34	17:43	18:43		20:47	30	07:36 (C1) 21:45		22:10
28	08:22	07:13	05:59		05:39		07:07 (C1) 04:41		04:28
	16:36	17:45	18:45		20:49	28	07:35 (C1) 21:47		22:10
29	08:20		06:57		05:37		07:09 (C1) 04:39		04:28
	16:39		19:47		20:51	25	07:34 (C1) 21:48		22:10
30	08:18		06:54		05:35		07:09 (C1) 04:38		04:29
	16:41		19:49		20:53	22	07:31 (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			214		885		26		
Sun reduction			0.41		0.50		0.57		
Oper. time red.			0.98		0.98		0.98		
Wind dir. red.			0.62		0.66		0.66		
Total reduction			0.25		0.32		0.37		
Total, real			54		285		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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:06 (C1) 18:54	07:17 18:09 (C4)	07:23 16:36
2	04:31 22:09	05:17 21:26	06:19 20:11	07:07 (C1) 18:51	07:19 18:08 (C4)	07:25 16:34
3	04:32 22:08	05:19 21:24	06:21 20:09	07:08 (C1) 18:48	07:21 18:07 (C4)	07:27 16:31
4	04:33 22:07	05:21 21:22	06:23 20:06	07:09 (C1) 18:46	07:23 18:05 (C4)	07:29 16:29
5	04:33 22:07	05:23 21:19	06:25 20:03	07:09 (C1) 18:43	07:25 18:03 (C4)	07:31 16:27
6	04:35 22:06	05:25 21:17	06:27 20:01	07:11 (C1) 18:40	07:27 18:03 (C4)	07:33 16:25
7	04:36 22:05	05:27 21:15	06:29 19:58	07:13 (C1) 18:38	07:29 18:03 (C4)	07:36 16:23
8	04:37 22:04	05:29 21:13	06:31 19:55	07:17 (C1) 18:35	07:32 18:03 (C4)	07:38 16:21
9	04:38 22:03	05:31 21:11	06:33 19:53	07:26 (C1) 18:32	07:34 18:03 (C4)	07:40 16:19
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:36 18:03 (C4)	07:42 16:17
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:38 18:03 (C4)	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 (C1) 18:25	07:40 18:03 (C4)	07:46 16:13
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:42 18:03 (C4)	07:49 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:44 18:03 (C4)	07:51 16:09
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:46 18:03 (C4)	07:53 16:07
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:48 18:03 (C4)	07:55 16:06
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:50 18:03 (C4)	07:57 16:04
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:52 18:03 (C4)	07:59 16:02
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	07:55 18:03 (C4)	08:01 16:01
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	07:57 18:03 (C4)	08:03 15:59
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	07:59 18:03 (C4)	08:05 15:58
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:01 18:03 (C4)	08:07 15:56
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:03 18:03 (C4)	08:09 15:55
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:05 18:03 (C4)	08:11 15:53
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:07 18:03 (C4)	08:13 15:52
26	05:04 21:39	06:05 20:29	07:07 19:07	08:08 17:50	08:08 18:03 (C4)	08:15 15:51
27	05:06 21:38	06:07 20:27	07:09 19:04	08:10 17:47	08:10 18:03 (C4)	08:17 15:49
28	05:08 21:36	06:09 20:24	07:11 19:02	08:12 17:45	08:12 18:03 (C4)	08:19 15:48
29	05:10 21:34	06:11 20:22	07:13 18:59	08:14 17:43	08:14 18:03 (C4)	08:21 15:47
30	05:12 21:32	06:13 20:19	07:15 18:56	08:16 17:41	08:16 18:03 (C4)	08:23 15:46
31	05:14 21:30	06:15 20:17	07:17 18:54	08:18 17:39	08:18 18:03 (C4)	08:25 15:45
Potential sun hours	529	469	385	324	247	216
Total, worst case		717	348	82		12
Sun reduction		0.50	0.43	0.26		0.07
Oper. time red.		0.98	0.98	0.98		0.98
Wind dir. red.		0.66	0.64	0.62		0.63
Total reduction		0.32	0.27	0.16		0.04
Total, real		230	94	13		1

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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												
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
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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	10:05 (C13)	08:15	10:09 (C13)	07:11	06:49	05:33	04:36	04:30	05:16	06:17	07:17	07:23	09:53 (C13)	08:24									09:47 (C13)
	15:48	10:33 (C13)	16:45	10:48 (C13)	17:48	19:53	20:55	21:53	22:09	21:28	20:14	18:54	16:36	13	10:06 (C13)	15:45	37							10:24 (C13)
2	08:50	10:05 (C13)	08:13	10:10 (C13)	07:08	06:46	05:30	04:35	04:31	05:18	06:19	07:19	07:25		09:49 (C13)	08:26							09:48 (C13)	
	15:49	10:34 (C13)	16:47	10:48 (C13)	17:50	19:55	20:57	21:54	22:09	21:26	20:11	18:51	16:34	20	10:09 (C13)	15:44	36							10:24 (C13)
3	08:50	10:05 (C13)	08:11	10:11 (C13)	07:06	06:43	05:28	04:34	04:32	05:19	06:21	07:21	07:27		09:48 (C13)	08:28							09:48 (C13)	
	15:51	10:35 (C13)	16:50	10:48 (C13)	17:52	19:57	21:00	21:55	22:08	21:24	20:09	18:48	16:32	24	10:12 (C13)	15:43	35							10:23 (C13)
4	08:50	10:05 (C13)	08:09	10:12 (C13)	07:03	06:41	05:26	04:33	04:33	05:21	06:23	07:23	07:29		09:46 (C13)	08:29							09:49 (C13)	
	15:52	10:35 (C13)	16:52	10:47 (C13)	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:46	16:29	27	10:13 (C13)	15:42	34							10:23 (C13)
5	08:49	10:05 (C13)	08:07	10:14 (C13)	07:00	06:38	05:23	04:32	04:34	05:23	06:25	07:25	07:31		09:44 (C13)	08:31							09:50 (C13)	
	15:53	10:37 (C13)	16:54	10:46 (C13)	17:56	20:01	21:04	21:58	22:07	21:20	20:03	18:43	16:27	30	10:14 (C13)	15:42	34							10:24 (C13)
6	08:49	10:05 (C13)	08:05	10:14 (C13)	06:58	06:35	05:21	04:31	04:35	05:25	06:27	07:27	07:33		09:43 (C13)	08:32							09:51 (C13)	
	15:55	10:38 (C13)	16:56	10:45 (C13)	17:58	20:03	21:06	21:59	22:06	21:17	20:01	18:40	16:25	33	10:16 (C13)	15:41	33							10:24 (C13)
7	08:48	10:05 (C13)	08:03	10:16 (C13)	06:55	06:33	05:19	04:30	04:36	05:27	06:29	07:30	07:36		09:42 (C13)	08:34							09:51 (C13)	
	15:56	10:38 (C13)	16:59	10:43 (C13)	18:00	20:05	21:08	22:00	22:05	21:15	19:58	18:38	16:23	35	10:17 (C13)	15:40	32							10:23 (C13)
8	08:48	10:05 (C13)	08:01	10:18 (C13)	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:32	07:38		09:42 (C13)	08:35							09:53 (C13)	
	15:58	10:39 (C13)	17:01	10:42 (C13)	18:03	20:08	21:10	22:01	22:04	21:13	19:55	18:35	16:21	37	10:19 (C13)	15:40	31							10:24 (C13)
9	08:47	10:05 (C13)	07:58	10:20 (C13)	06:50	06:28	05:15	04:29	04:38	05:31	06:33	07:34	07:40		09:41 (C13)	08:37							09:53 (C13)	
	15:59	10:40 (C13)	17:03	10:39 (C13)	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:32	16:19	38	10:19 (C13)	15:39	30							10:23 (C13)
10	08:46	10:05 (C13)	07:56	10:24 (C13)	06:47	06:25	05:13	04:28	04:39	05:33	06:35	07:36	07:42		09:41 (C13)	08:38							09:55 (C13)	
	16:01	10:41 (C13)	17:05	10:35 (C13)	18:07	20:12	21:14	22:03	22:02	21:08	19:50	18:30	16:17	39	10:20 (C13)	15:39	29							10:24 (C13)
11	08:45	10:05 (C13)	07:54	10:45 (C13)	06:45	06:45	06:22	05:11	04:27	04:41	05:35	06:37	07:38		09:40 (C13)	08:39							09:55 (C13)	
	16:03	10:42 (C13)	17:08	18:09	20:14	21:16	22:04	22:01	21:06	19:47	18:27	16:15	14	10:21 (C13)	15:38	28							10:23 (C13)	
12	08:44	10:05 (C13)	07:52	10:42 (C13)	06:42	06:42	06:20	05:08	04:27	04:42	05:37	06:39	07:40		09:40 (C13)	08:40							09:57 (C13)	
	16:04	10:43 (C13)	17:10	18:11	20:16	21:18	22:05	22:00	21:03	18:45	17:25	16:13	11	10:22 (C13)	15:38	27							10:24 (C13)	
13	08:43	10:05 (C13)	07:50	10:40	06:40	06:40	06:17	05:05	04:26	04:43	05:39	06:42	07:49		09:40 (C13)	08:42							09:57 (C13)	
	16:06	10:43 (C13)	17:12	18:13	20:18	21:20	22:06	21:59	21:02	19:42	18:22	16:11	42	10:22 (C13)	15:38	27							10:24 (C13)	
14	08:42	10:05 (C13)	07:47	10:37	06:44	06:37	06:14	05:04	04:26	04:45	05:41	06:43	07:44		09:40 (C13)	08:43							09:58 (C13)	
	16:08	10:44 (C13)	17:14	18:15	20:20	21:22	22:07	21:58	20:59	19:39	18:19	16:09	42	10:22 (C13)	15:38	26							10:24 (C13)	
15	08:41	10:04 (C13)	07:45	10:34	06:12	06:34	06:12	05:03	04:26	04:46	05:43	06:45	07:46		09:39 (C13)	08:44							09:59 (C13)	
	16:10	10:44 (C13)	17:17	18:18	20:22	21:24	22:07	21:57	20:57	19:37	18:17	16:08	43	10:22 (C13)	15:38	25							10:24 (C13)	
16	08:40	10:05 (C13)	07:43	10:32	06:09	06:32	06:09	05:01	04:25	04:48	05:45	06:47	07:48		09:40 (C13)	08:45							09:59 (C13)	
	16:12	10:45 (C13)	17:19	18:20	20:24	21:25	22:08	21:55	20:54	19:34	18:14	16:06	43	10:23 (C13)	15:38	25							10:24 (C13)	
17	08:39	10:05 (C13)	07:40	10:29	06:07	06:29	06:07	04:59	04:25	04:49	05:47	06:49	07:50		09:40 (C13)	08:46							10:00 (C13)	
	16:14	10:47 (C13)	17:21	18:22	20:26	21:27	22:08	21:54	20:52	19:31	18:12	16:04	43	10:23 (C13)	15:38	24							10:24 (C13)	
18	08:37	10:05 (C13)	07:38	10:26	06:04	06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:52		09:40 (C13)	08:46							10:01 (C13)	
	16:16	10:47 (C13)	17:23	18:24	20:28	21:29	22:09	21:52	20:50	19:29	18:09	16:02	44	10:24 (C13)	15:38	24							10:25 (C13)	
19	08:36	10:05 (C13)	07:36	10:24	06:02	06:24	06:02	04:55	04:25	04:52	05:51	06:53	08:01		09:40 (C13)	08:47							10:01 (C13)	
	16:18	10:48 (C13)	17:26	18:26	20:30	21:32	22:10	21:55	20:51	19:30	18:10	16:03	43	10:24 (C13)	15:38	23							10:01 (C13)	
20	08:35	10:06 (C13)	07:33	10:25	05:59	06:21	06:03	04:53	04:25	04:54	05:53	06:55	08:04		09:40 (C13)	08:48							10:02 (C13)	
	16:20	10:48 (C13)	17:28	18:28	20:33	21:33	22:10	21:49	20:45	19:25	18:04	15:59	43	10:23 (C13)	15:39	23							10:25 (C13)	
21	08:33	10:05 (C13)	07:31	10:18	05:57	06:18	05:57	04:52	04:25	04:56	05:55	06:57	07:59		09:40 (C13)	08:48							10:03 (C13)	
	16:22	10:48 (C13)	17:30	18:30	20:35	21:35	22:10	21:48	20:42	19:20	18:02	15:58	43	10:23 (C13)	15:39	23							10:26 (C13)	
22	08:32	10:05 (C13)	07:28	10:16	05:54	06:16	05:54	04:50	04:25	04:57	05:57	06:59	08:01		09:42 (C13)	08:49							10:03 (C13)	
	16:24	10:48 (C13)	17:32	18:32	20:37	21:37	22:10	21:46	20:40	19:18	17:59	15:56	42	10:24 (C13)	15:39	23							10:26 (C13)	
23	08:30	10:05 (C13)	07:26	10:13	05:52	06:13	05:52	04:48	04:26	04:59	05:59	07:01	08:03		09:42 (C13)	08:50							10:04 (C13)	
	16:26	10:49 (C13)	17:34	18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:55	42	10:24 (C13)	15:40	23							10:27 (C13)	
24	08:29	10:07 (C13)	07:23	10:10	05:49	06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05		09:42 (C13)	08:50							10:04 (C13)	
	16:28	10:43 (C13)	17:37	18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:55	15:53	42	10:24 (C13)	15:41	23							10:27 (C13)	
25	08:27	10:07 (C13)	07:21	10:07	05:47	06:07	05:47	04:45	04:26	05:03	06:03	07:05	07:07		09:43 (C13)	08:50							10:04 (C13)	
	16:30	10:50 (C13)	17:39	18:38	20:43	21:42	22:10	21:41	20:32	19:10	17:52	15:52	41	10:24 (C13)	15:41	23							10:27 (C13)	
26	08:26	10:07 (C13)	07:18	10:05	05:44	06:05	05:44	04:44	04:27	05:04	06:05	07:07	07:10		09:43 (C13)	08:51							10:04 (C13)	
	16:32	10:50 (C13)	17:41	18:41	20:45	21:45	22:10	21:39	20:30	19:07	17:50	15:51	40	10:25 (C13)	15:42	24							10:28 (C13)	
27	08:24	10:07 (C13)	07:16	10:02	05:42	06:02	05:42	04:42	04:27	05:06	06:07	07:09	07:12		09:44 (C13)	08:51							10:04 (C13)	
	16:34	10:50 (C13)	17:43	18:43	20:47	21:45	22:10	21:38	20:27	19:04	17:47	15:49	40	10:24 (C13)	15:43	25							10:29 (C13)	
28	08:22	10:08 (C13)	07:13	10:05	05:40	06:09	05:40	04:41	04:28	05:08	06:09	07:11	07:14		09:45 (C13)	08:51							10:04 (C13)	

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 22:01	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 22:03	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	04:54 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	08:34 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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 20:06	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 20:06	08:18 17:41	08:23 15:46	08:51 15:46
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April	May	June
1	08:51		10:16 (C1)	08:15		07:11				06:49	05:32	04:36
	15:48	23	10:39 (C1)	16:45		17:47				19:53	20:55	21:53
2	08:51		10:18 (C1)	08:13		07:08				06:46	05:30	04:34
	15:49	21	10:39 (C1)	16:47		17:50				19:55	20:57	21:54
3	08:50		10:18 (C1)	08:11		07:06		07:35 (C17)	06:43	05:28	04:33	
	15:50	21	10:39 (C1)	16:50		17:52	10	07:45 (C17)	19:57	21:00	21:55	
4	08:50		10:18 (C1)	08:09		07:03		07:31 (C17)	06:41	05:25	04:32	
	15:52	21	10:39 (C1)	16:52		17:54	17	07:48 (C17)	19:59	21:02	21:57	
5	08:49		10:20 (C1)	08:07		07:00		07:29 (C17)	06:38	05:23	04:31	
	15:53	20	10:40 (C1)	16:54		17:56	20	07:49 (C17)	20:01	21:04	21:58	
6	08:49		10:21 (C1)	08:05		06:58		07:28 (C17)	06:35	05:21	04:31	
	15:55	18	10:39 (C1)	16:56		17:58	23	07:51 (C17)	20:03	21:06	21:59	
7	08:48		10:21 (C1)	08:03		06:55		07:26 (C17)	06:33	05:19	04:30	
	15:56	18	10:39 (C1)	16:58		18:00	25	07:51 (C17)	20:05	21:08	22:00	
8	08:48		10:22 (C1)	08:01		06:53		07:25 (C17)	06:30	05:17	04:29	
	15:58	17	10:39 (C1)	17:01		18:03	27	07:52 (C17)	20:08	21:10	22:01	
9	08:47		10:24 (C1)	07:58		06:50		07:25 (C17)	06:27	05:15	04:28	
	15:59	15	10:39 (C1)	17:03		18:05	28	07:53 (C17)	20:10	21:12	22:02	
10	08:46		10:25 (C1)	07:56		06:47		07:24 (C17)	06:25	05:12	04:28	
	16:01	13	10:38 (C1)	17:05		18:07	28	07:52 (C17)	20:12	21:14	22:03	
11	08:45		10:27 (C1)	07:54		06:45		07:23 (C17)	06:22	05:10	04:27	
	16:03	10	10:37 (C1)	17:07		18:09	29	07:52 (C17)	20:14	21:16	22:04	
12	08:44		10:30 (C1)	07:52		06:42		07:24 (C17)	06:20	05:08	04:27	
	16:04	5	10:35 (C1)	17:10		18:11	28	07:52 (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	29	07:52 (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	28	07:51 (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	26	07:49 (C17)	20:22	21:24	22:07	
16	08:40			07:43		06:31		07:24 (C17)	06:09	05:00	04:25	
	16:12			17:19		18:20	25	07:49 (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	22	07:47 (C17)	20:26	21:27	22:09	
18	08:38			07:38		06:26		07:26 (C17)	06:04	04:57	04:25	
	16:15			17:23		18:24	19	07:45 (C17)	20:28	21:29	22:09	
19	08:36			07:35		06:23		07:28 (C17)	06:02	04:55	04:25	
	16:17			17:25		18:26	16	07:44 (C17)	20:30	21:31	22:09	
20	08:35			07:33		06:21		07:30 (C17)	05:59	04:53	04:25	
	16:19			17:28		18:28	10	07:40 (C17)	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		202				410						
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		16				102						

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:03 (C17) 16:36	08:24 15:45	10:09 (C1) 10:19 (C1)
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	10:08 (C1) 10:21 (C1)
3	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	08:02 (C17) 16:31	08:28 15:43	10:08 (C1) 10:23 (C1)
4	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	08:02 (C17) 16:29	08:29 15:42	10:07 (C1) 10:23 (C1)
5	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	08:02 (C17) 16:27	08:31 15:41	10:07 (C1) 10:24 (C1)
6	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	08:02 (C17) 16:25	08:32 15:41	10:07 (C1) 10:26 (C1)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	08:03 (C17) 16:23	08:34 15:40	10:06 (C1) 10:26 (C1)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	08:04 (C17) 16:21	08:35 15:40	10:06 (C1) 10:27 (C1)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	08:06 (C17) 16:19	08:37 15:39	10:07 (C1) 10:28 (C1)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:08 (C17) 16:17	08:38 15:39	10:07 (C1) 10:29 (C1)
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:11 (C17) 16:15	08:39 15:38	10:07 (C1) 10:29 (C1)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:17 (C17) 16:13	08:40 15:38	10:08 (C1) 10:30 (C1)
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	10:08 (C1) 10:31 (C1)
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	10:08 (C1) 10:31 (C1)
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	10:08 (C1) 10:32 (C1)
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	10:08 (C1) 10:32 (C1)
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	10:09 (C1) 10:33 (C1)
18	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38	10:09 (C1) 10:33 (C1)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38	10:10 (C1) 10:34 (C1)
20	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38	10:10 (C1) 10:34 (C1)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39	10:11 (C1) 10:35 (C1)
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	10:11 (C1) 10:35 (C1)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:40	10:12 (C1) 10:36 (C1)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40	10:12 (C1) 10:36 (C1)
25	05:02 21:41	06:03 20:32	07:05 19:10	08:09 (C17) 16:52	07:07 16:52	08:13 15:52	10:12 (C1) 10:36 (C1)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:07 (C17) 16:50	07:10 16:50	08:15 15:50	10:13 (C1) 10:37 (C1)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:07 (C17) 16:47	07:12 16:47	08:17 15:49	10:13 (C1) 10:37 (C1)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:05 (C17) 16:45	07:14 16:45	08:19 15:48	10:14 (C1) 10:37 (C1)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:04 (C17) 16:43	07:16 16:43	08:21 15:47	10:14 (C1) 10:38 (C1)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:03 (C17) 16:40	07:18 16:40	08:22 15:46	10:15 (C1) 10:38 (C1)
31	05:14 21:30	06:15 20:17		08:31 (C17) 16:38	07:20 16:38	5 10:16 (C1) 15:46	10:16 (C1) 10:39 (C1)
Potential sun hours	529	469	385	324	247	216	
Total, worst case			167	248	5	669	
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	0.61	0.61	
Total reduction			0.26	0.16	0.05	0.04	
Total, real			43	39	0	28	

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:37 (C1)	06:49	05:32	04:36	04:30	05:16	06:17	07:17	08:24
	15:48	16:45	17:47	07:55 (C1)	19:53	20:55	21:53	22:09	21:28	20:14	18:54	15:45
2	08:51	08:13	07:08	07:35 (C1)	06:46	05:30	04:35	04:31	05:17	06:19	07:19	08:26
	15:49	16:47	17:50	07:56 (C1)	19:55	20:58	21:54	22:09	21:26	20:11	18:51	15:44
3	08:50	08:11	07:06	07:34 (C1)	06:43	05:28	04:34	04:32	05:19	06:21	07:21	08:28
	15:51	16:50	17:52	07:57 (C1)	19:57	21:00	21:55	22:08	21:24	20:09	18:48	15:43
4	08:50	08:09	07:03	07:33 (C1)	06:41	05:26	04:33	04:32	05:21	06:23	07:23	08:29
	15:52	16:52	17:54	07:57 (C1)	19:59	21:02	21:57	22:07	21:22	20:06	18:46	15:42
5	08:49	08:07	07:00	07:32 (C1)	06:38	05:23	04:32	04:33	05:23	06:25	07:25	08:31
	15:53	16:54	17:56	07:57 (C1)	20:01	21:04	21:58	22:07	21:20	20:03	18:43	15:41
6	08:49	08:05	06:58	07:33 (C1)	06:35	05:21	04:31	04:35	05:25	06:27	07:27	08:32
	15:55	16:56	17:58	07:58 (C1)	20:03	21:06	21:59	22:06	21:17	20:01	18:40	15:41
7	08:48	08:03	06:55	07:32 (C1)	06:33	05:19	04:30	04:36	05:27	06:29	07:30	08:34
	15:56	16:59	18:00	07:57 (C1)	20:05	21:08	22:00	22:05	21:15	19:58	18:38	15:40
8	08:48	08:01	06:53	07:32 (C1)	06:30	05:17	04:29	04:37	05:29	06:31	07:32	08:35
	15:58	17:01	18:03	07:56 (C1)	20:08	21:10	22:01	22:04	21:13	19:55	18:35	15:40
9	08:47	07:58	06:50	07:33 (C1)	06:27	05:15	04:28	04:38	05:31	06:33	07:34	08:37
	15:59	17:03	18:05	07:56 (C1)	20:10	21:12	22:02	22:03	21:11	19:53	18:32	15:39
10	08:46	07:56	06:47	07:33 (C1)	06:25	05:13	04:28	04:39	05:33	06:35	07:36	08:38
	16:01	17:05	18:07	07:55 (C1)	20:12	21:14	22:03	22:02	21:08	19:50	18:30	15:39
11	08:45	07:54	06:45	07:33 (C1)	06:22	05:10	04:27	04:41	05:35	06:37	07:38	08:39
	16:03	17:08	18:09	07:53 (C1)	20:14	21:16	22:04	22:01	21:06	19:47	18:27	15:38
12	08:44	07:52	06:42	07:35 (C1)	06:20	05:08	04:27	04:42	05:37	06:39	07:40	08:40
	16:04	17:10	18:11	07:52 (C1)	20:16	21:18	22:05	22:00	21:04	19:45	18:25	15:38
13	08:43	07:50	06:40	07:37 (C1)	06:17	05:06	04:26	04:43	05:39	06:41	07:42	08:42
	16:06	17:12	18:13	07:49 (C1)	20:18	21:20	22:06	21:59	21:02	19:42	18:22	15:38
14	08:42	07:47	06:37	07:41 (C1)	06:14	05:04	04:26	04:45	05:41	06:43	07:44	08:43
	16:08	17:14	18:15	07:44 (C1)	20:20	21:22	22:07	21:58	20:59	19:39	18:19	15:38
15	08:41	07:45	06:34		06:12	05:02	04:26	04:46	05:43	06:45	07:46	08:44
	16:10	17:17	18:17		20:22	21:24	22:07	21:57	20:57	19:37	18:17	15:38
16	08:40	07:43	06:32		06:09	05:01	04:25	04:48	05:45	06:47	07:48	08:45
	16:12	17:19	18:20		20:24	21:26	22:08	21:55	20:54	19:34	18:14	15:38
17	08:39	07:40	06:29		06:07	04:59	04:25	04:49	05:47	06:49	07:50	08:46
	16:14	17:21	18:22		20:26	21:27	22:09	21:54	20:52	19:31	18:12	15:38
18	08:38	07:38	06:26		06:04	04:57	04:25	04:51	05:49	06:51	07:52	08:46
	16:16	17:23	18:24		20:28	21:29	22:09	21:53	20:50	19:29	18:09	15:38
19	08:36	07:36	06:24		06:02	04:55	04:25	04:52	05:51	06:53	07:55	08:47
	16:18	17:25	18:26		20:30	21:31	22:09	21:51	20:47	19:26	18:07	15:38
20	08:35	07:33	06:21		05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:48
	16:20	17:28	18:28		20:33	21:33	22:10	21:50	20:45	19:23	18:04	15:38
21	08:33	07:31	06:18		05:57	04:52	04:25	04:56	05:55	06:57	07:59	08:49
	16:22	17:30	18:30		20:35	21:35	22:10	21:48	20:42	19:20	18:02	15:38
22	08:32	07:28	06:15		05:54	04:50	04:25	04:57	05:57	06:59	08:01	08:49
	16:24	17:32	18:32		20:37	21:37	22:10	21:46	20:40	19:18	17:59	15:39
23	08:30	07:26	06:13		05:52	04:48	04:26	04:59	05:59	07:01	08:03	08:50
	16:26	17:34	18:34		20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:40
24	08:29	07:23	06:10		05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:51
	16:28	17:37	18:36		20:41	21:40	22:10	21:43	20:35	19:12	17:55	15:40
25	08:27	07:21	06:07		05:47	04:45	04:26	05:03	06:03	07:05	08:07	08:50
	16:30	17:39	18:38		20:43	21:42	22:10	21:41	20:32	19:10	17:52	15:41
26	08:26	07:18	06:05		05:44	04:44	04:27	05:04	06:05	07:07	08:09	08:51
	16:32	17:41	18:41		20:45	21:43	22:10	21:39	20:30	19:07	17:50	15:42
27	08:24	07:16	06:02	07:42 (C1)	05:42	04:42	04:27	05:06	06:07	07:09	08:12	08:51
	16:34	17:43	18:43	07:51 (C1)	20:47	21:45	22:10	21:38	20:27	19:04	17:47	15:43
28	08:22	07:13	05:59	07:40 (C1)	05:39	04:41	04:28	05:08	06:09	07:11	08:14	08:51
	16:36	17:45	18:45	07:54 (C1)	20:49	21:47	22:10	21:36	20:24	19:02	17:45	15:44
29	08:20		05:57		05:37	04:39	04:28	05:10	06:11	07:13	08:16	08:51
	16:39		19:47		20:51	21:48	22:10	21:34	20:22	18:59	17:43	15:44
30	08:19		05:54		05:35	04:38	04:29	05:12	06:13	07:15	08:18	08:51
	16:41		19:49		20:53	21:50	22:09	21:32	20:19	18:56	17:40	15:45
31	08:17		05:51			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	529	529	469	385	324	247
Total, worst case												216
Sun reduction		23	282							10	303	
Oper. time red.		0.20	0.41							0.43	0.26	
Wind dir. red.		0.98	0.98							0.98	0.98	
Total reduction		0.12	0.25							0.62	0.62	
Total, real		3	71						3		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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	04:49 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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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

	January	February	March	April	May	June	July	August	September	October	November	December
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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
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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
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Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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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	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		06:51 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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	29 08:24 (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	28 08:23 (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	26 08:22 (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	24 08:21 (C14)	19:59	21:02
5	08:49	08:07	07:01	07:57 (C14)	06:38	05:24
	15:54	16:54	17:56	22 08:19 (C14)	20:01	21:04
6	08:49	08:05	06:58	07:59 (C14)	06:36	05:21
	15:55	16:56	17:58	19 08:18 (C14)	20:03	21:06
7	08:48	08:03	06:55	08:01 (C14)	06:33	05:19
	15:56	16:59	18:01	14 08:15 (C14)	20:06	21:08
8	08:48	08:01	06:53	08:04 (C14)	06:30	05:17
	15:58	17:01	18:03	6 08:10 (C14)	20:08	21:10
9	08:47	07:58	06:50	06:28	4 06:56 (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	22 07:05 (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	06:42 (C13)	05:03
	16:10	17:17	18:18	20:22	23 07:05 (C13)	21:24
16	08:40	07:43	06:32	06:09	06:41 (C13)	05:01
	16:12	17:19	18:20	20:24	23 07:04 (C13)	21:26
17	08:39	07:40	08:08 (C14)	06:29	06:07	06:41 (C13)
	16:14	17:21	6 08:14 (C14)	18:22	20:26	23 07:04 (C13)
18	08:38	07:38	08:05 (C14)	06:26	06:04	06:41 (C13)
	16:16	17:23	12 08:17 (C14)	18:24	20:28	22 07:03 (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	20 07:02 (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	18 07:01 (C13)
21	08:33	07:31	07:59 (C14)	06:18	05:57	06:43 (C13)
	16:22	17:30	24 08:23 (C14)	18:30	20:35	16 06:59 (C13)
22	08:32	07:28	07:57 (C14)	06:16	05:54	06:45 (C13)
	16:24	17:32	26 08:23 (C14)	18:32	20:37	13 06:58 (C13)
23	08:30	07:26	07:57 (C14)	06:13	05:52	06:48 (C13)
	16:26	17:34	27 08:24 (C14)	18:34	20:39	6 06:54 (C13)
24	08:29	07:23	07:56 (C14)	06:10	05:49	04:47
	16:28	17:37	28 08:24 (C14)	18:36	20:41	21:40
25	08:27	07:21	07:56 (C14)	06:08	05:47	04:45
	16:30	17:39	29 08:25 (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	30 08:25 (C14)	18:41	20:45	21:43
27	08:24	07:16	07:55 (C14)	06:02	05:42	04:42
	16:34	17:43	29 08:24 (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	30 08:25 (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		279	168		270	
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		34	42		86	

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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	08:38 (C14) 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:35 (C14) 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:33 (C14) 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:32 (C14) 16:19	08:37 15:39
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:31 (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	08:28 (C14) 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:28 (C14) 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:27 (C14) 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	08:27 (C14) 16:03	08:46 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:28 (C14) 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:29 (C14) 15:59	08:48 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:29 (C14) 15:58	08:49 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:31 (C14) 15:56	08:49 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:34 (C14) 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:36 (C14) 15:53	08:50 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:38 (C14) 15:52	08:51 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:40 (C14) 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:48	08:42 (C14) 15:50	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:46	08:44 (C14) 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	08:46 (C14) 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:41	08:48 (C14) 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17	07:17 18:54	08:19 17:39	08:50 (C14) 15:45	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		231	42	450		
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		73	11	71		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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Total, worst case												
Sun reduction												
Oper. time red.												
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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:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	06:18 (C14) 20:50	04:36 21:53	04:30 22:09	05:16 21:28	06:35 (C14) 18 06:53 (C14)	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	06:19 (C14) 20:50	04:35 21:54	04:31 22:08	05:18 21:26	06:33 (C14) 21 06:54 (C14)	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	06:19 (C14) 20:50	04:34 21:55	04:32 22:08	05:20 21:24	06:32 (C14) 23 06:55 (C14)	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	06:19 (C14) 20:50	04:33 21:57	04:33 22:07	05:22 21:22	06:32 (C14) 25 06:57 (C14)	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	06:19 (C14) 20:50	04:32 21:58	04:34 22:07	05:24 21:20	06:31 (C14) 26 06:57 (C14)	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	06:20 (C14) 20:50	04:31 21:59	04:35 22:06	05:25 21:17	06:29 (C14) 28 06:57 (C14)	06:27 20:01	07:28 18:40	07:33 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	06:20 (C14) 20:50	04:30 22:05	04:36 22:05	05:27 21:15	06:29 (C14) 29 06:58 (C14)	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:21 (C14) 20:50	04:29 22:04	04:37 22:04	05:29 21:13	06:29 (C14) 30 06:59 (C14)	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	06:22 (C14) 20:50	04:29 22:03	04:38 22:03	05:31 21:11	06:28 (C14) 31 06:59 (C14)	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	06:22 (C14) 20:50	04:28 22:03	04:40 22:02	05:33 21:08	06:28 (C14) 31 06:59 (C14)	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	06:24 (C14) 20:50	04:28 22:01	04:41 22:01	05:35 21:06	06:28 (C14) 31 06:59 (C14)	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	06:25 (C14) 20:50	04:27 22:00	04:42 22:00	05:37 21:04	06:27 (C14) 32 06:59 (C14)	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	05:07 21:20	06:28 (C14) 20:50	04:27 22:06	04:44 21:59	05:39 21:02	06:27 (C14) 32 06:59 (C14)	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	06:30 (C14) 20:50	04:26 22:07	04:45 21:58	05:41 20:59	06:27 (C14) 31 06:58 (C14)	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	06:37 (C14) 20:50	04:26 22:07	04:46 21:57	05:43 20:57	06:27 (C14) 31 06:58 (C14)	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	04:48 21:55	05:45 20:54	06:28 (C14) 30 06:58 (C14)	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 22:08	04:49 21:54	04:49 21:54	05:47 20:52	06:28 (C14) 29 06:57 (C14)	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	04:51 21:52	05:49 20:50	06:29 (C14) 27 06:56 (C14)	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 20:30	04:55 21:31	04:25 22:09	04:53 21:51	04:53 21:51	05:51 20:47	06:28 (C14) 26 06:54 (C14)	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 21:49	04:54 21:49	05:53 20:45	06:29 (C14) 24 06:53 (C14)	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	04:56 21:48	05:55 20:42	06:30 (C14) 22 06:52 (C14)	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	04:58 21:46	05:57 20:40	06:32 (C14) 18 06:50 (C14)	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 21:45	04:59 21:45	05:59 20:37	06:34 (C14) 14 06:48 (C14)	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	05:01 21:43	06:01 20:35	06:39 (C14) 4 06:43 (C14)	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	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:07 15:52	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	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	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	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	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	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	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	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:21 15:47	08:51 15:45
30	08:18 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	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:22 15:46	08:51 15:46
31	08:17 16:43	07:02 17:51	05:52 18:51	05:32 20:51	04:37 21:51	04:37 21:51	05:14 21:30	05:14 21:30	06:15 20:17	07:20 16:38	07:20 16:38	08:23 15:47	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216		
Total, worst case				296	337		24	613						
Sun reduction				0.50	0.57		0.49	0.50						
Oper. time red.				0.98	0.98		0.98	0.98						
Wind dir. red.				0.65	0.65		0.65	0.65						
Total reduction				0.32	0.36		0.31	0.32						
Total, real				94	122		8	194						

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	11 07:11 (C1) 07:22 (C1)	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	34 07:04 (C1) 07:38 (C1)	07:17 18:54	07:23 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 22:09	05:17 21:26	06:19 20:11	32 07:05 (C1) 07:37 (C1)	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	05:19 21:24	06:21 20:09	30 07:06 (C1) 07:36 (C1)	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	05:26 21:02		04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	27 07:07 (C1) 07:34 (C1)	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 21:04	07:17 (C1) 07:30 (C1)	04:32 21:58	04:33 22:07	05:23 21:19	06:25 20:03	24 07:07 (C1) 07:31 (C1)	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	07:14 (C1) 07:34 (C1)	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	20 07:09 (C1) 07:29 (C1)	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	07:11 (C1) 07:35 (C1)	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	13 07:12 (C1) 07:25 (C1)	07:29 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:00 17:01	06:53 18:03	06:30 20:08	05:17 21:10	07:09 (C1) 07:36 (C1)	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	06:50 18:05	06:27 20:10	05:15 21:12	07:08 (C1) 07:38 (C1)	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	05:13 21:14	07:06 (C1) 07:38 (C1)	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	05:10 21:16	07:05 (C1) 07:39 (C1)	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	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:18	07:04 (C1) 07:39 (C1)	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	13 07:19 (C1) 07:32 (C1)	06:40 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	05:06 21:20	07:03 (C1) 07:40 (C1)	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	13 07:16 (C1) 07:35 (C1)	06:41 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	07:02 (C1) 07:40 (C1)	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	19 07:14 (C1) 07:37 (C1)	06:43 18:19	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:02 21:24	07:02 (C1) 07:40 (C1)	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	23 07:13 (C1) 07:38 (C1)	06:45 18:17	07:53 16:07	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	07:01 (C1) 07:41 (C1)	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	25 07:11 (C1) 07:40 (C1)	06:47 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	07:01 (C1) 07:41 (C1)	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	29 07:09 (C1) 07:40 (C1)	06:49 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	07:01 (C1) 07:39 (C1)	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	31 07:08 (C1) 07:41 (C1)	06:51 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	07:01 (C1) 07:39 (C1)	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	33 07:07 (C1) 07:41 (C1)	06:53 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	07:00 (C1) 07:38 (C1)	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	34 07:07 (C1) 07:42 (C1)	06:55 18:04	08:03 15:59	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	07:01 (C1) 07:38 (C1)	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	35 07:06 (C1) 07:42 (C1)	06:57 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 21:37	07:01 (C1) 07:38 (C1)	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	36 07:05 (C1) 07:43 (C1)	06:59 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	07:01 (C1) 07:36 (C1)	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	37 07:05 (C1) 07:43 (C1)	07:01 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	07:02 (C1) 07:36 (C1)	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	38 07:05 (C1) 07:43 (C1)	07:03 17:55	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	07:03 (C1) 07:35 (C1)	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:10	39 07:04 (C1) 07:43 (C1)	07:05 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	04:44 21:43	07:03 (C1) 07:33 (C1)	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	40 07:03 (C1) 07:42 (C1)	07:07 17:10	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	07:04 (C1) 07:32 (C1)	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	41 07:03 (C1) 07:42 (C1)	07:09 17:12	08:17 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:47	07:05 (C1) 07:30 (C1)	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	42 07:03 (C1) 07:41 (C1)	07:11 17:14	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:39 21:48	07:07 (C1) 07:29 (C1)	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	43 07:03 (C1) 07:41 (C1)	07:13 17:16	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	07:08 (C1) 07:25 (C1)	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	44 07:03 (C1) 07:40 (C1)	07:15 17:18	08:22 15:46	08:51 15:45
31	08:17 16:43		06:51 19:51		04:37 21:51	07:25 (C1)		05:14 21:30	06:15 20:17	07:20 18:56	45 07:04 (C1) 07:39 (C1)	07:20 17:20	08:22 16:38	08:51 15:47
Potential sun hours	235	266	366	426	508		529	529	469	385		324	247	216
Total, worst case				817		11				180				
Sun reduction				0.50		0.57				0.43				
Oper. time red.				0.98		0.98				0.98				
Wind dir. red.				0.66		0.66				0.66				
Total reduction				0.32		0.37				0.28				
Total, real				263		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)
	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

January			February			March			April			May			June		
1	08:51	13:24 (C13)	08:15	07:11					06:49			05:32		06:39 (C1)	04:36		
	15:48	14	13:38 (C13)	16:45	17:47				19:53			20:55	41	07:20 (C1)	21:53		
2	08:50	13:26 (C13)	08:13	07:08					06:46			05:30		06:39 (C1)	04:35		
	15:49	12	13:38 (C13)	16:47	17:50				19:55			20:57	41	07:20 (C1)	21:54		
3	08:50	13:27 (C13)	08:11	07:06					06:43			05:28		06:39 (C1)	04:34		
	15:51	11	13:38 (C13)	16:50	17:52				19:57			21:00	41	07:20 (C1)	21:55		
4	08:50	13:28 (C13)	08:09	07:03					06:41			05:26		06:40 (C1)	04:33		
	15:52	8	13:36 (C13)	16:52	17:54				19:59			21:02	39	07:19 (C1)	21:57		
5	08:49	13:32 (C13)	08:07	07:00					06:38			05:23		06:40 (C1)	04:32		
	15:53	3	13:35 (C13)	16:54	17:56				20:01			21:04	39	07:19 (C1)	21:58		
6	08:49		08:05	06:58					06:35			05:21		06:41 (C1)	04:31		
	15:55		16:56	17:58					20:03			21:06	37	07:18 (C1)	21:59		
7	08:48		08:03	06:55					06:33			05:19		06:41 (C1)	04:30		
	15:56		16:59	18:00					20:05			21:08	36	07:17 (C1)	22:00		
8	08:48		08:00	06:53					06:30			05:17		06:42 (C1)	04:29		
	15:58		17:01	18:03					20:08			21:10	34	07:16 (C1)	22:01		
9	08:47		07:58	06:50					06:27			05:15		06:42 (C1)	04:28		
	15:59		17:03	18:05					20:10			21:12	33	07:15 (C1)	22:02		
10	08:46		07:56	06:47					06:25			05:13		06:43 (C1)	04:28		
	16:01		17:05	18:07					20:12			21:14	31	07:14 (C1)	22:03		
11	08:45		07:54	06:45					06:22			05:10		06:44 (C1)	04:27		
	16:03		17:08	18:09					20:14			21:16	29	07:13 (C1)	22:04		
12	08:44		07:52	06:42				07:08 (C4)	06:20			05:08		06:45 (C1)	04:27		
	16:04		17:10	18:11		6		07:14 (C4)	20:16			21:18	26	07:11 (C1)	22:05		
13	08:43		07:49	06:39				07:05 (C4)	06:17			05:06		06:46 (C1)	04:26		
	16:06		17:12	18:13		11		07:16 (C4)	20:18			21:20	24	07:10 (C1)	22:06		
14	08:42		07:47	06:37				07:02 (C4)	06:14			05:04		06:49 (C1)	04:26		
	16:08		17:14	18:15		15		07:17 (C4)	20:20	13		07:10 (C1)	21:22	20	07:09 (C1)	22:07	
15	08:41		07:45	06:34				06:59 (C4)	06:12			05:02		06:50 (C1)	04:26		
	16:10		17:17	18:17		18		07:17 (C4)	20:22	19		07:13 (C1)	21:24	16	07:06 (C1)	22:07	
16	08:40		07:43	06:31				06:58 (C4)	06:09			05:01		06:53 (C1)	04:25		
	16:12		17:19	18:20		21		07:19 (C4)	20:24	25		07:15 (C1)	21:25	10	07:03 (C1)	22:08	
17	08:39		07:40	06:29				06:57 (C4)	06:07			04:59			04:25		
	16:14		17:21	18:22		22		07:19 (C4)	20:26	28		07:17 (C1)	21:27		22:08		
18	08:37		07:38	06:26				06:56 (C4)	06:04			04:57			04:25		
	16:16		17:23	18:24		22		07:18 (C4)	20:28	31		07:18 (C1)	21:29		22:09		
19	08:36		07:35	06:23				06:57 (C4)	06:02			04:55			04:25		
	16:18		17:25	18:26		22		07:19 (C4)	20:30	33		07:19 (C1)	21:31		22:09		
20	08:35		07:33	06:21				06:56 (C4)	05:59			04:53			04:25		
	16:20		17:28	18:28		22		07:18 (C4)	20:33	35		07:19 (C1)	21:33		22:10		
21	08:33		07:31	06:18				06:56 (C4)	05:57			04:52			04:25		
	16:22		17:30	18:30		21		07:17 (C4)	20:35	37		07:20 (C1)	21:35		22:10		
22	08:32		07:28	06:15				06:58 (C4)	05:54			04:50			04:25		
	16:24		17:32	18:32		18		07:16 (C4)	20:37	38		07:21 (C1)	21:36		22:10		
23	08:30		07:26	06:13				06:58 (C4)	05:52			04:48			04:26		
	16:26		17:34	18:34		16		07:14 (C4)	20:39	40		07:21 (C1)	21:38		22:10		
24	08:29		07:23	06:10				06:59 (C4)	05:49			04:47			04:26		
	16:28		17:37	18:36		13		07:12 (C4)	20:41	40		07:21 (C1)	21:40		22:10		
25	08:27		07:21	06:07				07:02 (C4)	05:47			04:45			04:26		
	16:30		17:39	18:38		6		07:08 (C4)	20:43	41		07:22 (C1)	21:42		22:10		
26	08:26		07:18	06:05					05:44			04:44			04:27		
	16:32		17:41	18:40					20:45	42		07:21 (C1)	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	42		07:21 (C1)	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	42		07:21 (C1)	21:47		22:10		
29	08:20			06:57					05:37			04:39			04:28		
	16:39			19:47					20:51	42		07:21 (C1)	21:48		22:10		
30	08:18			06:54					05:35			04:38			04:29		
	16:41			19:49					20:53	41		07:20 (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	48				233			589				497					
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				0.63			0.66				0.66					
Total reduction	0.08				0.25			0.32				0.36					
Total, real	4				59			189				181					

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July	August	September	October	November	December
1	04:30	05:16	06:55 (C1)	06:17	07:17	07:46 (C4)
	22:09	21:28	20:14	18:54	16:36	15:45
2	04:31	05:17	06:54 (C1)	06:19	07:19	07:25
	22:09	21:26	20:11	18:51	16:34	15:44
3	04:32	05:19	06:53 (C1)	06:21	07:21	07:27
	22:08	21:24	20:09	18:48	16:31	15:43
4	04:33	05:21	06:52 (C1)	06:23	07:23	07:29
	22:07	21:22	20:06	18:46	16:29	15:42
5	04:33	05:23	06:51 (C1)	06:25	07:25	07:31
	22:07	21:19	20:03	18:43	16:27	15:41
6	04:35	05:25	06:50 (C1)	06:27	07:27	07:33
	22:06	21:17	20:01	18:40	16:25	15:41
7	04:36	05:27	06:50 (C1)	06:29	07:29	07:36
	22:05	21:15	19:58	18:38	16:23	15:40
8	04:37	05:29	06:49 (C1)	06:31	07:32	07:38
	22:04	21:13	19:55	18:35	16:21	15:40
9	04:38	05:31	06:49 (C1)	06:33	07:34	07:40
	22:03	21:11	19:53	18:32	16:19	15:39
10	04:39	05:33	06:48 (C1)	06:35	07:36	07:42
	22:02	21:08	19:50	18:30	16:17	15:39
11	04:41	05:35	06:47 (C1)	06:37	07:38	07:44
	22:01	21:06	19:47	18:27	16:15	15:38
12	04:42	05:37	06:47 (C1)	06:39	07:40	07:46
	22:00	21:04	19:45	18:25	16:13	15:38
13	04:43	05:39	06:47 (C1)	06:41	07:42	07:49
	21:59	21:01	19:42	18:22	16:11	15:38
14	04:45	05:41	06:47 (C1)	06:43	07:44	07:51
	21:58	20:59	19:39	18:19	16:09	15:38
15	04:46	05:43	06:47 (C1)	06:45	07:46	07:53
	21:57	20:57	19:37	18:17	16:07	15:38
16	04:48	05:45	06:47 (C1)	06:47	07:48	07:55
	21:55	20:54	19:34	18:14	16:06	15:38
17	04:49	05:47	06:46 (C1)	06:49	07:50	07:57
	21:54	20:52	19:31	18:12	16:04	15:38
18	04:51	05:49	06:46 (C1)	06:51	07:52	07:59
	21:52	20:50	19:29	18:09	16:02	15:38
19	04:52	05:51	06:47 (C1)	06:53	07:55	08:01
	21:51	20:47	19:26	18:07	16:01	15:38
20	04:54	05:53	06:47 (C1)	06:55	07:57	08:03
	21:49	20:45	19:23	18:04	15:59	15:38
21	04:56	05:55	06:47 (C1)	06:57	07:59	08:05
	21:48	20:42	19:20	18:02	15:58	15:39
22	04:57	05:57	06:48 (C1)	06:59	08:01	08:07
	21:46	20:40	19:18	17:59	15:56	15:39
23	04:59	05:59	06:49 (C1)	07:01	08:03	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	15:40
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	05:04	06:05	07:07	08:09	08:15	08:51
	21:39	20:29	19:07	17:50	15:51	15:42
27	05:06	06:07	07:09	08:12	08:17	08:51
	21:38	20:27	19:04	17:49	15:49	15:43
28	05:08	06:09	07:11	08:14	08:19	08:51
	21:36	20:24	19:02	17:47	15:48	15:44
29	05:10	06:11	07:13	08:16	08:21	08:51
	21:34	20:22	18:59	17:45	15:47	15:44
30	05:12	06:13	07:15	08:18	08:22	08:51
	21:32	20:19	18:56	17:43	15:46	15:45
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	80	1024	224	8		399
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	25	327	59	1		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	06:21 (C13) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	06:21 (C13) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:00 (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	06:01 (C13) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:02 (C13) 22:02
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	06:03 (C13) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:05 (C13) 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	07:11 (C14) 20:16	05:09 21:18	06:14 (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	06:14 (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	06:14 (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	06:14 (C13) 22:08
16	08:40 16:12	07:43 17:19	06:32 18:20	06:59 (C14) 20:24	05:01 21:25	06:14 (C13) 22:09
17	08:39 16:14	07:40 17:21	06:29 18:22	06:57 (C14) 20:26	04:59 21:27	06:14 (C13) 22:10
18	08:37 16:16	07:38 17:23	06:26 18:24	06:56 (C14) 20:28	04:57 21:29	06:14 (C13) 22:11
19	08:36 16:18	07:36 17:26	06:24 18:26	06:55 (C14) 20:31	04:55 21:31	06:14 (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	06:14 (C13) 22:13
21	08:33 16:22	07:31 17:30	06:18 18:30	06:54 (C14) 20:35	04:52 21:35	06:14 (C13) 22:14
22	08:32 16:24	07:28 17:32	06:16 18:32	06:54 (C14) 20:37	04:50 21:37	06:14 (C13) 22:15
23	08:30 16:26	07:26 17:34	06:13 18:34	06:54 (C14) 20:39	04:48 21:38	06:14 (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	06:14 (C13) 22:17
25	08:27 16:30	07:21 17:39	06:08 18:39	06:54 (C14) 20:43	04:45 21:42	06:14 (C13) 22:18
26	08:26 16:32	07:18 17:41	06:05 18:41	06:54 (C14) 20:45	04:44 21:43	06:14 (C13) 22:19
27	08:24 16:34	07:16 17:43	06:02 18:43	06:55 (C14) 20:47	04:42 21:45	06:14 (C13) 22:20
28	08:22 16:37	07:13 17:45	06:00 18:45	06:56 (C14) 20:49	04:41 21:47	06:14 (C13) 22:21
29	08:20 16:39	07:11 17:47	05:57 18:47	06:57 (C14) 20:51	04:40 21:48	06:14 (C13) 22:22
30	08:19 16:41	07:09 17:49	05:54 18:49	06:58 (C14) 20:53	04:39 21:50	06:14 (C13) 22:23
31	08:17 16:43	07:07 17:51	05:52 18:51	06:59 (C14) 20:55	04:37 21:51	06:14 (C13) 22:24
Potential sun hours	235	266	366	426	508	528
Total, worst case			456	68	199	
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			0.26	0.32	0.37	
Total, real			116	22	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)

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July	August	September	October	November	December
1	04:30	05:16	06:18 (C13)	06:17	07:17	07:23
	22:09	21:28	3 06:21 (C13)	20:14	18:54	16:36
2	04:31	05:18	06:15 (C13)	06:19	07:19	07:25
	22:09	21:26	10 06:25 (C13)	20:11	18:51	16:34
3	04:32	05:20	06:13 (C13)	06:21	07:21	07:27
	22:08	21:24	14 06:27 (C13)	20:09	18:48	16:32
4	04:33	05:22	06:12 (C13)	06:23	07:23	07:29
	22:07	21:22	16 06:28 (C13)	20:06	18:46	16:30
5	04:34	05:24	06:11 (C13)	06:25	07:25	07:31
	22:07	21:20	18 06:29 (C13)	20:04	18:43	16:27
6	04:35	05:25	06:10 (C13)	06:27	07:28	07:33
	22:06	21:17	19 06:29 (C13)	20:01	18:40	16:25
7	04:36	05:27	06:09 (C13)	06:29	07:30	07:36
	22:05	21:15	21 06:30 (C13)	19:58	18:38	16:23
8	04:37	05:29	06:09 (C13)	06:31	07:32	07:38
	22:04	21:13	21 06:30 (C13)	19:56	18:35	16:21
9	04:38	05:31	06:09 (C13)	06:33	07:34	07:40
	22:03	21:11	21 06:30 (C13)	19:53	18:33	16:19
10	04:40	05:33	06:09 (C13)	06:35	07:36	07:42
	22:02	21:08	22 06:31 (C13)	19:50	18:30	16:17
11	04:41	05:35	06:09 (C13)	06:37	07:38	07:44
	22:01	21:06	22 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	20 06:29 (C13)	19:45	18:25	16:13
13	04:44	05:39	06:11 (C13)	06:41	07:50 (C14)	07:42
	21:59	21:02	18 06:29 (C13)	19:42	18:04 (C14)	16:11
14	04:45	05:41	06:13 (C13)	06:43	07:48 (C14)	07:44
	21:58	20:59	16 06:29 (C13)	19:39	18:06 (C14)	16:10
15	04:46	05:43	06:15 (C13)	06:45	07:46 (C14)	07:46
	21:57	20:57	13 06:28 (C13)	19:37	18:08 (C14)	16:08
16	04:48	05:45	06:17 (C13)	06:47	07:44 (C14)	07:48
	21:55	20:54	10 06:27 (C13)	19:34	18:09 (C14)	16:15
17	04:49	05:47	06:19 (C13)	06:49	07:43 (C14)	07:50
	21:54	20:52	6 06:25 (C13)	19:31	18:09 (C14)	16:12
18	04:51	05:49	06:21 (C13)	06:51	07:42 (C14)	07:52
	21:52	20:50	2 06:23 (C13)	19:29	18:10 (C14)	16:03
19	04:53	05:51	06:53	07:41 (C14)	07:55	08:01
	21:51	20:47	19:26	29 08:10 (C14)	18:07	16:01
20	04:54	05:53	06:55	07:40 (C14)	07:57	08:03
	21:49	20:45	19:23	30 08:10 (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	30 08:10 (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	31 08:10 (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	30 08:09 (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	30 08:09 (C14)	17:55	15:53
25	05:03	06:03	07:05	07:39 (C14)	07:07	08:13
	21:41	20:32	19:10	29 08:08 (C14)	16:52	15:52
26	05:05	06:05	07:07	07:39 (C14)	07:10	08:15
	21:39	20:30	19:07	28 08:07 (C14)	16:50	15:51
27	05:06	06:07	07:09	07:40 (C14)	07:12	08:17
	21:38	20:27	19:04	25 08:05 (C14)	16:48	15:50
28	05:08	06:09	07:11	07:41 (C14)	07:14	08:19
	21:36	20:24	19:02	23 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	20 08:02 (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	15 07:59 (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		272	457	9		
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		88	121	1		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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)	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:05 (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	07:03 (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	07:02 (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	07:01 (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	07:04 (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	07:06 (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	07:07 (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	07:12 (C14) 21:20	05:07 22:06	04:27 21:59	05:39 21:02	06:41 19:42	07:14 (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	07:14 (C14) 21:22	05:05 22:07	04:26 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	06:10 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	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 21:37	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 15:53	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 17:52	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 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 17:45	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	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 18:59	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 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:08 19:51	05:52 19:51	07:17 (C14) 07:23 (C14)	04:37 21:51	04:29 21:30	05:14 20:17	06:15 20:11	07:18 (C14) 07:18 (C14)	07:20 16:38	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case			6	211				15	204			
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			2	68				5	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April			May			June		
1	08:51		10:37 (C1)	08:15		11:05 (C1)	07:11		07:55 (C2)	06:49		05:32		06:31 (C17)	04:36			
	15:48	44	11:21 (C1)	16:45	8	11:13 (C1)	17:47	24	08:19 (C2)	19:53		20:55	43	07:14 (C17)	21:53			
2	08:50		10:38 (C1)	08:13			07:08		07:55 (C2)	06:46		05:30		06:31 (C17)	04:34			
	15:49	44	11:22 (C1)	16:47			17:50	23	08:18 (C2)	19:55		20:57	43	07:14 (C17)	21:54			
3	08:50		09:29 (C4)	08:11			07:06		07:57 (C2)	06:43		05:28		06:31 (C17)	04:33			
	15:50	46	11:22 (C1)	16:49			17:52	21	08:18 (C2)	19:57		21:00	43	07:14 (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	48	11:22 (C1)	16:52			17:54	18	08:16 (C2)	19:59		21:02	42	07:13 (C17)	21:57			
5	08:49		09:28 (C4)	08:07			07:00		07:59 (C2)	06:38		05:23		06:31 (C17)	04:31			
	15:53	51	11:24 (C1)	16:54			17:56	14	08:13 (C2)	20:01		21:04	42	07:13 (C17)	21:58			
6	08:49		09:27 (C4)	08:05			06:58		08:03 (C2)	06:35		05:21		06:32 (C17)	04:31			
	15:55	53	11:24 (C1)	16:56			17:58	7	08:10 (C2)	20:03		21:06	41	07:13 (C17)	21:59			
7	08:48		09:26 (C4)	08:03			06:55			06:33		05:19		06:32 (C17)	04:30			
	15:56	55	11:24 (C1)	16:58			18:00			20:05		21:08	40	07:12 (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	11:25 (C1)	17:01			18:03			20:07		21:10	40	07:12 (C17)	22:01			
9	08:47		09:24 (C4)	07:58			06:50			06:27		05:15		06:33 (C17)	04:28			
	15:59	59	11:25 (C1)	17:03			18:05			20:10		21:12	38	07:11 (C17)	22:02			
10	08:46		09:23 (C4)	07:56			06:47			06:25		05:12		06:33 (C17)	04:28			
	16:01	61	11:26 (C1)	17:05			18:07			20:12		21:14	37	07:10 (C17)	22:03			
11	08:45		09:22 (C4)	07:54			06:45			06:22		05:10		06:34 (C17)	04:27			
	16:03	63	11:26 (C1)	17:07			18:09			20:14		21:16	35	07:09 (C17)	22:04			
12	08:44		09:21 (C4)	07:52			06:42			06:20		05:08		06:34 (C17)	04:27			
	16:04	65	11:27 (C1)	17:10			18:11			20:16		21:18	34	07:08 (C17)	22:05			
13	08:43		09:20 (C4)	07:49			06:39			06:17		05:06		06:35 (C17)	04:26			
	16:06	65	11:26 (C1)	17:12			18:13			20:18		21:20	32	07:07 (C17)	22:06			
14	08:42		09:20 (C4)	07:47			06:37			06:14		05:04		06:37 (C17)	04:26			
	16:08	66	11:27 (C1)	17:14			18:15			20:20		21:22	30	07:07 (C17)	22:07			
15	08:41		09:21 (C4)	07:45			06:34			06:12		05:02		06:37 (C17)	04:25			
	16:10	66	11:27 (C1)	17:16			18:17			20:22		21:24	28	07:05 (C17)	22:07			
16	08:40		09:20 (C4)	07:43			06:31			06:09		05:00		06:38 (C17)	04:25			
	16:12	67	11:27 (C1)	17:19			18:20			20:24	15	07:03 (C17)	21:25	26	07:04 (C17)	22:08		
17	08:39		09:21 (C4)	07:40			06:29			06:07		04:59		06:39 (C17)	04:25			
	16:14	66	11:28 (C1)	17:21			18:22			20:26	21	07:06 (C17)	21:27	23	07:02 (C17)	22:09		
18	08:37		09:21 (C4)	07:38		08:05 (C2)	06:26			06:04		04:57		06:41 (C17)	04:25			
	16:15	65	11:27 (C1)	17:23	8	08:13 (C2)	18:24			20:28	26	07:08 (C17)	21:29	20	07:01 (C17)	22:09		
19	08:36		09:21 (C4)	07:35		08:03 (C2)	06:23			06:02		04:55		06:43 (C17)	04:25			
	16:17	65	11:27 (C1)	17:25	13	08:16 (C2)	18:26			20:30	29	07:10 (C17)	21:31	16	06:59 (C17)	22:09		
20	08:35		09:22 (C4)	07:33		08:00 (C2)	06:21			05:59		04:53		06:46 (C17)	04:25			
	16:19	65	11:28 (C1)	17:28	17	08:17 (C2)	18:28			20:32	31	07:10 (C17)	21:33	10	06:56 (C17)	22:10		
21	08:33		09:22 (C4)	07:31		07:58 (C2)	06:18			05:57		04:51			04:25			
	16:21	63	11:27 (C1)	17:30	21	08:19 (C2)	18:30			20:35	34	07:11 (C17)	21:35		22:10			
22	08:32		09:22 (C4)	07:28		07:57 (C2)	06:15			05:54		04:50			04:25			
	16:24	63	11:27 (C1)	17:32	22	08:19 (C2)	18:32			20:37	36	07:13 (C17)	21:37		22:10			
23	08:30		09:22 (C4)	07:26		07:56 (C2)	06:13			05:52		04:48			04:25			
	16:26	61	11:26 (C1)	17:34	24	08:20 (C2)	18:34			20:39	38	07:13 (C17)	21:38		22:10			
24	08:29		09:24 (C4)	07:23		07:55 (C2)	06:10			05:49		04:47			04:26			
	16:28	59	11:27 (C1)	17:36	25	08:20 (C2)	18:36			20:41	39	07:13 (C17)	21:40		22:10			
25	08:27		09:25 (C4)	07:21		07:55 (C2)	06:07			05:47		04:45			04:26			
	16:30	55	11:26 (C1)	17:39	25	08:20 (C2)	18:38			20:43	40	07:14 (C17)	21:42		22:10			
26	08:26		09:25 (C4)	07:18		07:55 (C2)	06:05			05:44		04:44			04:27			
	16:32	53	11:25 (C1)	17:41	26	08:21 (C2)	18:40			20:45	41	07:14 (C17)	21:43		22:10			
27	08:24		09:26 (C4)	07:16		07:55 (C2)	06:02			05:42		04:42			04:27			
	16:34	49	11:24 (C1)	17:43	25	08:20 (C2)	18:43			20:47	42	07:14 (C17)	21:45		22:10			
28	08:22		09:28 (C4)	07:13		07:55 (C2)	05:59			05:39		04:41			04:28			
	16:36	44	11:23 (C1)	17:45	25	08:20 (C2)	18:45			20:49	42	07:14 (C17)	21:47		22:10			
29	08:20		09:30 (C4)				06:57			05:37		04:39			04:28			
	16:38	38	11:22 (C1)				19:47			20:51	43	07:14 (C17)	21:48		22:10			
30	08:18		09:32 (C4)				06:54			05:35		04:38			04:29			
	16:41	29	11:20 (C1)				19:49			20:53	43	07:14 (C17)	21:50		22:09			
31	08:17		11:01 (C1)				06:51					04:37						
	16:43	17	11:18 (C1)				19:51					21:51						
Potential sun hours	235			266			366			426		508			529			
Total, worst case	1702			239			107			520		663						
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			0.62			0.63			0.65		0.65						
Total reduction	0.08			0.12			0.24			0.31		0.35						
Total, real	130			29			26			162		234						

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July		August		September		October		November		December		
1	04:30		05:15	06:44 (C17)	06:17	07:17			07:23		08:24	09:04 (C4)	
	22:09		21:28	35 07:19 (C17)	20:14	18:53			16:36		15:45	63 11:08 (C1)	
2	04:31		05:17	06:44 (C17)	06:19	07:19			07:25		08:26	09:06 (C4)	
	22:09		21:26	36 07:20 (C17)	20:11	18:51			16:34		15:44	61 11:09 (C1)	
3	04:31		05:19	06:43 (C17)	06:21	07:21			07:27		08:28	09:08 (C4)	
	22:08		21:24	38 07:21 (C17)	20:09	18:48			16:31		15:43	59 11:09 (C1)	
4	04:32		05:21	06:43 (C17)	06:23	07:23			07:29		08:29	09:09 (C4)	
	22:07		21:22	38 07:21 (C17)	20:06	18:46			16:29		15:42	57 11:09 (C1)	
5	04:33		05:23	06:42 (C17)	06:25	07:25			07:31		08:31	09:11 (C4)	
	22:07		21:19	39 07:21 (C17)	20:03	18:43			16:27		15:41	54 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	41 07:22 (C17)	20:01	18:40			16:25		15:41	53 11:10 (C1)	
7	04:36		05:27	06:41 (C17)	06:29	07:29			07:36		08:34	09:14 (C4)	
	22:05		21:15	41 07:22 (C17)	19:58	18:38			16:23		15:40	51 11:10 (C1)	
8	04:37		05:29	06:41 (C17)	06:31	07:31		08:35 (C2)	07:38		08:35	09:16 (C4)	
	22:04		21:13	42 07:23 (C17)	19:55	18:35	12	08:47 (C2)	16:21		15:40	49 11:11 (C1)	
9	04:38		05:31	06:41 (C17)	06:33	07:34		08:33 (C2)	07:40		08:37	09:18 (C4)	
	22:03		21:11	42 07:23 (C17)	19:53	18:32	16	08:49 (C2)	16:19		15:39	46 11:11 (C1)	
10	04:39		05:33	06:39 (C17)	06:35	07:36		08:32 (C2)	07:42		08:38	10:27 (C1)	
	22:02		21:08	43 07:22 (C17)	19:50	18:30	19	08:51 (C2)	16:17	9 10:44 (C1)	15:39	44 11:11 (C1)	
11	04:40		05:35	06:39 (C17)	06:37	07:38		08:30 (C2)	07:44		10:32 (C1)	08:39	10:27 (C1)
	22:01		21:06	43 07:22 (C17)	19:47	18:27	22	08:52 (C2)	16:15	17 10:49 (C1)	15:38	44 11:11 (C1)	
12	04:42		05:37	06:39 (C17)	06:39	07:40		08:29 (C2)	07:46		09:03 (C4)	08:40	10:28 (C1)
	22:00		21:04	43 07:22 (C17)	19:45	18:25	23	08:52 (C2)	16:13	29 10:51 (C1)	15:38	44 11:12 (C1)	
13	04:43		05:39	06:39 (C17)	06:41	07:42		08:28 (C2)	07:49		09:01 (C4)	08:42	10:29 (C1)
	21:59		21:01	43 07:22 (C17)	19:42	18:22	24	08:52 (C2)	16:11	39 10:54 (C1)	15:38	44 11:13 (C1)	
14	04:45		05:41	06:40 (C17)	06:43	07:44		08:27 (C2)	07:51		09:00 (C4)	08:43	10:29 (C1)
	21:58		20:59	42 07:22 (C17)	19:39	18:19	25	08:52 (C2)	16:09	44 10:55 (C1)	15:38	44 11:13 (C1)	
15	04:46		05:43	06:40 (C17)	06:45	07:46		08:28 (C2)	07:53		08:58 (C4)	08:44	10:29 (C1)
	21:57		20:57	42 07:22 (C17)	19:37	18:17	25	08:53 (C2)	16:07	49 10:56 (C1)	15:38	44 11:13 (C1)	
16	04:48		05:45	06:40 (C17)	06:47	07:48		08:27 (C2)	07:55		08:58 (C4)	08:45	10:30 (C1)
	21:55		20:54	42 07:22 (C17)	19:34	18:14	26	08:53 (C2)	16:06	53 10:58 (C1)	15:38	44 11:14 (C1)	
17	04:49		05:47	06:39 (C17)	06:49	07:50		08:27 (C2)	07:57		08:58 (C4)	08:46	10:30 (C1)
	21:54		20:52	41 07:20 (C17)	19:31	18:12	25	08:52 (C2)	16:04	55 10:59 (C1)	15:38	44 11:14 (C1)	
18	04:51		05:49	06:40 (C17)	06:51	07:52		08:27 (C2)	07:59		08:58 (C4)	08:46	10:31 (C1)
	21:52		20:49	40 07:20 (C17)	19:28	18:09	24	08:51 (C2)	16:02	59 11:01 (C1)	15:38	44 11:15 (C1)	
19	04:52		05:51	06:40 (C17)	06:53	07:54		08:28 (C2)	08:01		08:57 (C4)	08:47	10:32 (C1)
	21:51		20:47	39 07:19 (C17)	19:26	18:07	23	08:51 (C2)	16:01	61 11:01 (C1)	15:38	43 11:15 (C1)	
20	04:54		05:53	06:41 (C17)	06:55	07:57		08:28 (C2)	08:03		08:57 (C4)	08:48	10:32 (C1)
	21:49		20:45	37 07:18 (C17)	19:23	18:04	22	08:50 (C2)	15:59	63 11:02 (C1)	15:38	43 11:15 (C1)	
21	04:56		05:55	06:41 (C17)	06:57	07:59		08:29 (C2)	08:05		08:57 (C4)	08:49	10:33 (C1)
	21:48		20:42	36 07:17 (C17)	19:20	18:02	20	08:49 (C2)	15:57	63 11:02 (C1)	15:39	43 11:16 (C1)	
22	04:57		05:57	06:42 (C17)	06:59	08:01		08:31 (C2)	08:07		08:58 (C4)	08:49	10:33 (C1)
	21:46		20:40	34 07:16 (C17)	19:18	17:59	16	08:47 (C2)	15:56	65 11:04 (C1)	15:39	43 11:16 (C1)	
23	04:59	06:59 (C17)	05:59	06:43 (C17)	07:01	08:03		08:34 (C2)	08:09		08:58 (C4)	08:50	10:34 (C1)
	21:45	4 07:03 (C17)	20:37	32 07:15 (C17)	19:15	17:57	12	08:46 (C2)	15:54	65 11:04 (C1)	15:40	43 11:17 (C1)	
24	05:01	06:55 (C17)	06:01	06:45 (C17)	07:03	08:05		08:36 (C2)	08:11		08:58 (C4)	08:50	10:34 (C1)
	21:43	13 07:08 (C17)	20:35	28 07:13 (C17)	19:12	17:54	6	08:42 (C2)	15:53	65 11:04 (C1)	15:40	43 11:17 (C1)	
25	05:02	06:52 (C17)	06:03	06:45 (C17)	07:05	07:07			08:13		08:58 (C4)	08:50	10:34 (C1)
	21:41	18 07:10 (C17)	20:32	25 07:10 (C17)	19:10	16:52			15:52	66 11:05 (C1)	15:41	44 11:18 (C1)	
26	05:04	06:51 (C17)	06:05	06:47 (C17)	07:07	07:09			08:15		08:59 (C4)	08:51	10:34 (C1)
	21:39	21 07:12 (C17)	20:29	21 07:08 (C17)	19:07	16:50			15:50	66 11:06 (C1)	15:42	44 11:18 (C1)	
27	05:06	06:50 (C17)	06:07	06:51 (C17)	07:09	07:12			08:17		09:00 (C4)	08:51	10:35 (C1)
	21:38	24 07:14 (C17)	20:27	13 07:04 (C17)	19:04	16:47			15:49	66 11:07 (C1)	15:43	43 11:18 (C1)	
28	05:08	06:48 (C17)	06:09		07:11	07:14			08:19		09:00 (C4)	08:51	10:35 (C1)
	21:36	27 07:15 (C17)	20:24		19:02	16:45			15:48	66 11:07 (C1)	15:43	44 11:19 (C1)	
29	05:10	06:47 (C17)	06:11		07:13	07:16			08:21		09:01 (C4)	08:51	10:36 (C1)
	21:34	29 07:16 (C17)	20:22		18:59	16:43			15:47	65 11:07 (C1)	15:44	44 11:20 (C1)	
30	05:12	06:46 (C17)	06:13		07:15	07:18			08:22		09:02 (C4)	08:51	10:36 (C1)
	21:32	31 07:17 (C17)	20:19		18:56	16:40			15:46	65 11:08 (C1)	15:45	44 11:20 (C1)	
31	05:14	06:45 (C17)	06:15			07:20					08:51	10:37 (C1)	
	21:30	33 07:18 (C17)	20:17			16:38					15:46	44 11:21 (C1)	
Potential sun hours	529		469			385		324		247		216	
Total, worst case	200		996				340		1130		1454		
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	61		309				52		53		59		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	05:07 (C12) 05:15 (C12)	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	05:08 (C12) 05:15 (C12)	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	05:09 (C12) 05:14 (C12)	05:19 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	05:10 (C12) 05:13 (C12)	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	04:32 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	08:35 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	05:05 (C12) 05:07 (C12)	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 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 22:02	05:04 (C12) 05:08 (C12)	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	05:04 (C12) 05:10 (C12)	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	05:03 (C12) 05:10 (C12)	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	05:08 21:17	04:27 22:05	05:03 (C12) 05:11 (C12)	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	05:06 21:19	04:26 22:06	05:03 (C12) 05:12 (C12)	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	05:03 (C12) 05:13 (C12)	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	05:02 (C12) 05:13 (C12)	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 18:19	06:09 20:24	05:01 21:25	04:26 22:08	05:02 (C12) 05:13 (C12)	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	05:02 (C12) 05:14 (C12)	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	05:02 (C12) 05:14 (C12)	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	05:02 (C12) 05:14 (C12)	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	05:02 (C12) 05:15 (C12)	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 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	05:03 (C12) 05:16 (C12)	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	05:03 (C12) 05:16 (C12)	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	05:03 (C12) 05:15 (C12)	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 17:36	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:04 (C12) 05:16 (C12)	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	04:26 22:10	05:04 (C12) 05:16 (C12)	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	05:04 (C12) 05:15 (C12)	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	05:05 (C12) 05:16 (C12)	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	05:05 (C12) 05:15 (C12)	05:08 21:35	06:09 20:24	07:11 19:01	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	05:06 (C12) 05:16 (C12)	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	05:07 (C12) 05:16 (C12)	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						230	23						
Sun reduction						0.56	0.49						
Oper. time red.						0.98	0.98						
Wind dir. red.						0.66	0.66						
Total reduction						0.36	0.32						
Total, real						84	7						

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

Shadow receptor: Kalsetas - 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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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

	January	February	March	April	May	June	July	August	September	October	November	December
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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	08:51 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	08:14 (C1)	06:49	05:32
	15:48	16:45	17:47	20 08:34 (C1)	19:53	20:55
2	08:51	08:13	07:08	08:15 (C1)	06:46	05:30
	15:49	16:47	17:50	17 08:32 (C1)	19:55	20:58
3	08:50	08:11	07:06	08:18 (C1)	06:43	05:28
	15:50	16:50	17:52	11 08:29 (C1)	19:57	21:00
4	08:50	08:09	07:03		06:41	05:26
	15:52	16:52	17:54		19:59	21:02
5	08:49	08:07	07:00		06:38	05:23
	15:53	16:54	17:56		20:01	21:04
6	08:49	08:05	06:58		06:35	05:21
	15:55	16:56	17:58		20:03	21:06
7	08:48	08:03	06:55		06:33	05:19
	15:56	16:59	18:00		20:05	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		06:27	05:15
	15:59	17:03	18:05		20:10	21:12
10	08:46	07:56	06:47		06:25	05:12
	16:01	17:05	18:07		20:12	21:14
11	08:45	07:54	06:45		06:22	05:10
	16:03	17:08	18:09		20:14	21:16
12	08:44	07:52	06:42		06:20	05:08
	16:04	17:10	18:11	2	06:47 (C17)	21:18
13	08:43	07:50	08:20 (C1)	06:39	06:17	06:43 (C17)
	16:06	17:12	12 08:32 (C1)	18:13	20:18	7 06:50 (C17)
14	08:42	07:47	08:17 (C1)	06:37	06:14	06:40 (C17)
	16:08	17:14	17 08:34 (C1)	18:15	20:20	11 06:51 (C17)
15	08:41	07:45	08:15 (C1)	06:34	06:12	06:38 (C17)
	16:10	17:17	21 08:36 (C1)	18:17	20:22	15 06:53 (C17)
16	08:40	07:43	08:13 (C1)	06:32	06:09	06:35 (C17)
	16:12	17:19	23 08:36 (C1)	18:20	20:24	18 06:53 (C17)
17	08:39	07:40	08:13 (C1)	06:29	06:07	06:33 (C17)
	16:14	17:21	25 08:38 (C1)	18:22	20:26	21 06:54 (C17)
18	08:38	07:38	08:12 (C1)	06:26	06:04	06:32 (C17)
	16:16	17:23	26 08:38 (C1)	18:24	20:28	21 06:53 (C17)
19	08:36	07:35	08:12 (C1)	06:24	06:02	06:32 (C17)
	16:18	17:25	27 08:39 (C1)	18:26	20:30	22 06:54 (C17)
20	08:35	07:33	08:11 (C1)	06:21	05:59	06:31 (C17)
	16:20	17:28	28 08:39 (C1)	18:28	20:33	22 06:53 (C17)
21	08:33	07:31	08:11 (C1)	06:18	05:57	06:32 (C17)
	16:22	17:30	29 08:40 (C1)	18:30	20:35	21 06:53 (C17)
22	08:32	07:28	08:10 (C1)	06:15	05:54	06:32 (C17)
	16:24	17:32	29 08:39 (C1)	18:32	20:37	20 06:52 (C17)
23	08:30	07:26	08:11 (C1)	06:13	05:52	06:32 (C17)
	16:26	17:34	29 08:40 (C1)	18:34	20:39	19 06:51 (C17)
24	08:29	07:23	08:10 (C1)	06:10	05:49	06:33 (C17)
	16:28	17:37	29 08:39 (C1)	18:36	20:41	17 06:50 (C17)
25	08:27	07:21	08:10 (C1)	06:07	05:47	06:34 (C17)
	16:30	17:39	28 08:38 (C1)	18:38	20:43	15 06:49 (C17)
26	08:26	07:18	08:11 (C1)	06:05	05:44	06:35 (C17)
	16:32	17:41	27 08:38 (C1)	18:40	20:45	11 06:46 (C17)
27	08:24	07:16	08:11 (C1)	06:02	05:42	06:38 (C17)
	16:34	17:43	26 08:37 (C1)	18:43	20:47	5 06:43 (C17)
28	08:22	07:13	08:13 (C1)	05:59	05:39	04:41
	16:36	17:45	23 08:36 (C1)	18:45	20:49	21:47
29	08:20			06:57	05:37	04:39
	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		399	48	247		
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		48	12	78		

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:55 (C1) 09:01 (C1)	07:42 16:17
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:51 (C1) 09:05 (C1)	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:48 (C1) 09:07 (C1)	07:46 16:13
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:46 (C1) 09:08 (C1)	07:49 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	08:44 (C1) 09:09 (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) 09:10 (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) 09:10 (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) 09:10 (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) 09:10 (C1)	07:59 16:02
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:42 (C1) 09:11 (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	08:41 (C1) 09:10 (C1)	08:05 15:58
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:41 (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	08:42 (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	08:42 (C1) 09:08 (C1)	08:11 15:53
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	07:43 (C1) 08:07 (C1)	08:13 15:52
26	05:04 21:39	06:05 20:30	07:07 19:07	08:09 17:50	07:44 (C1) 08:06 (C1)	08:15 15:51
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:47	07:45 (C1) 08:05 (C1)	08:17 15:49
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:45	07:46 (C1) 08:03 (C1)	08:19 15:48
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	07:50 (C1) 08:01 (C1)	08:21 15:47
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:40	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 20:17	07:17 18:54	08:19 17:38	08:24 15:44	08:54 15:43
Potential sun hours	529	469	385	324	247	216
Total, worst case		250		458		
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		79		71		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January		February		March		April		May		June	
1	08:50	08:15			07:11		07:47 (C12)	06:49	07:27 (C11)	05:32		04:36
	15:48	16:45			17:47	27	08:14 (C12)	19:53	07:57 (C11)	20:55		21:52
2	08:50	08:13			07:08		07:46 (C12)	06:46	07:25 (C11)	05:30		04:35
	15:49	16:47			17:50	28	08:14 (C12)	19:55	07:57 (C11)	20:57		21:54
3	08:50	08:11			07:05		07:46 (C12)	06:43	07:24 (C11)	05:28		04:34
	15:51	16:50			17:52	29	08:15 (C12)	19:57	07:57 (C11)	20:59		21:55
4	08:50	08:09			07:03		07:46 (C12)	06:41	07:24 (C11)	05:26		04:33
	15:52	16:52			17:54	28	08:14 (C12)	19:59	07:58 (C11)	21:01		21:56
5	08:49	08:07			07:00		07:45 (C12)	06:38	07:23 (C11)	05:23		04:32
	15:53	16:54			17:56	29	08:14 (C12)	20:01	07:57 (C11)	21:03		21:58
6	08:49	08:05			06:58		07:46 (C12)	06:35	07:23 (C11)	05:21		04:31
	15:55	16:56			17:58	39	17:30 (C15)	20:03	07:58 (C11)	21:05		21:59
7	08:48	08:02			06:55		07:46 (C12)	06:33	07:22 (C11)	05:19		04:30
	15:56	16:59			18:00	43	17:32 (C15)	20:05	07:57 (C11)	21:08		22:00
8	08:47	08:00		16:13 (C16)	06:53		07:46 (C12)	06:30	07:22 (C11)	05:17		04:29
	15:58	17:01	8	16:21 (C16)	18:03	45	17:33 (C15)	20:07	07:56 (C11)	21:10		22:01
9	08:47	07:58		16:10 (C16)	06:50		07:47 (C12)	06:27	07:22 (C11)	05:15		04:28
	15:59	17:03	15	16:25 (C16)	18:05	45	17:35 (C15)	20:09	07:56 (C11)	21:12		22:02
10	08:46	07:56		16:08 (C16)	06:47		07:48 (C12)	06:25	07:22 (C11)	05:13		04:28
	16:01	17:05	19	16:27 (C16)	18:07	44	17:35 (C15)	20:12	07:55 (C11)	21:14	12	06:03 (C10)
11	08:45	07:54		16:06 (C16)	06:45		07:49 (C12)	06:22	07:23 (C11)	05:10		05:49 (C10)
	16:03	17:08	22	16:28 (C16)	18:09	42	17:35 (C15)	20:14	07:55 (C11)	21:16	16	06:05 (C10)
12	08:44	07:52		16:06 (C16)	06:42		07:50 (C12)	06:20	07:23 (C11)	05:08		05:47 (C10)
	16:04	17:10	24	16:30 (C16)	18:11	37	17:34 (C15)	20:16	07:53 (C11)	21:18	20	06:07 (C10)
13	08:43	07:49		16:05 (C16)	06:39		07:55 (C12)	06:17	07:24 (C11)	05:06		05:45 (C10)
	16:06	17:12	26	16:31 (C16)	18:13	29	17:35 (C15)	20:18	07:53 (C11)	21:19	23	06:08 (C10)
14	08:42	07:47		16:04 (C16)	06:37		17:11 (C15)	06:14	07:24 (C11)	05:04		05:45 (C10)
	16:08	17:14	27	16:31 (C16)	18:15	23	17:34 (C15)	20:20	07:51 (C11)	21:21	25	06:10 (C10)
15	08:41	07:45		16:04 (C16)	06:34		17:10 (C15)	06:12	07:26 (C11)	05:02		05:43 (C10)
	16:10	17:16	28	16:32 (C16)	18:17	23	17:33 (C15)	20:22	07:50 (C11)	21:23	27	06:10 (C10)
16	08:40	07:42		16:03 (C16)	06:31		17:12 (C15)	06:09	07:27 (C11)	05:01		05:42 (C10)
	16:12	17:19	29	16:32 (C16)	18:19	21	17:33 (C15)	20:24	07:47 (C11)	21:25	29	06:11 (C10)
17	08:39	07:40		16:03 (C16)	06:29		17:12 (C15)	06:07	07:29 (C11)	04:59		05:42 (C10)
	16:14	17:21	30	16:33 (C16)	18:22	19	17:31 (C15)	20:26	07:45 (C11)	21:27	30	06:12 (C10)
18	08:37	07:38		16:02 (C16)	06:26		17:13 (C15)	06:04	07:32 (C11)	04:57		05:41 (C10)
	16:16	17:23	30	16:32 (C16)	18:24	16	17:29 (C15)	20:28	07:40 (C11)	21:29	31	06:12 (C10)
19	08:36	07:35		16:03 (C16)	06:23		17:15 (C15)	06:02	04:55	05:41 (C10)		05:40 (C10)
	16:18	17:25	30	16:33 (C16)	18:26	13	17:28 (C15)	20:30	04:59	05:42 (C10)		05:41 (C10)
20	08:35	07:33		16:03 (C16)	06:21		17:19 (C15)	05:59	04:53	05:41 (C10)		05:40 (C10)
	16:20	17:28	29	16:32 (C16)	18:28	4	17:23 (C15)	20:32	04:57	05:41 (C10)		05:40 (C10)
21	08:33	07:30		16:03 (C16)	06:18			05:57	04:52	05:40 (C10)		05:39 (C10)
	16:22	17:30	29	16:32 (C16)	18:30			20:34	04:52	05:40 (C10)		05:39 (C10)
22	08:32	07:28		16:03 (C16)	06:15			05:54	04:50	05:40 (C10)		05:38 (C10)
	16:24	17:32	28	16:31 (C16)	18:32			20:37	04:50	05:40 (C10)		05:38 (C10)
23	08:30	07:26		07:57 (C12)	06:13			05:52	04:48	05:39 (C10)		05:37 (C10)
	16:26	17:34	34	16:30 (C16)	18:34			20:39	04:48	05:39 (C10)		05:37 (C10)
24	08:29	07:23		07:54 (C12)	06:10			05:49	04:47	05:40 (C10)		05:36 (C10)
	16:28	17:36	39	16:30 (C16)	18:36			20:41	04:47	05:40 (C10)		05:36 (C10)
25	08:27	07:21		07:51 (C12)	06:07			05:47	04:45	05:40 (C10)		05:35 (C10)
	16:30	17:39	42	16:28 (C16)	18:38			20:43	04:45	05:40 (C10)		05:35 (C10)
26	08:25	07:18		07:50 (C12)	06:05			05:44	04:44	05:40 (C10)		05:34 (C10)
	16:32	17:41	41	16:27 (C16)	18:40			20:45	04:44	05:40 (C10)		05:34 (C10)
27	08:24	07:16		07:49 (C12)	06:02		06:37 (C11)	05:42	04:42	05:39 (C10)		05:33 (C10)
	16:34	17:43	40	16:25 (C16)	18:42	12	06:49 (C11)	20:47	04:42	05:39 (C10)		05:33 (C10)
28	08:22	07:13		07:47 (C12)	05:59		06:34 (C11)	05:39	04:41	05:40 (C10)		05:32 (C10)
	16:36	17:45	35	16:21 (C16)	18:45	18	06:52 (C11)	20:49	04:41	05:40 (C10)		05:32 (C10)
29	08:20				06:57		07:32 (C11)	05:37	04:39	05:40 (C10)		05:31 (C10)
	16:39				19:47	22	07:54 (C11)	20:51	04:39	05:40 (C10)		05:31 (C10)
30	08:18				06:54		07:29 (C11)	05:35	04:38	05:40 (C10)		05:30 (C10)
	16:41				19:49	26	07:55 (C11)	20:53	04:38	05:40 (C10)		05:30 (C10)
31	08:16				06:51		07:27 (C11)		04:37	05:40 (C10)		05:29 (C10)
	16:43				19:51	29	07:56 (C11)		04:37	05:40 (C10)		05:29 (C10)
Potential sun hours	235	266			366		426		508		528	
Total, worst case			605		691		520		662		974	
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		0.67		0.67	
Total reduction			0.13		0.26		0.32		0.37		0.37	
Total, real			79		178		166		246		357	

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		05:58 (C10)	06:17		07:22 (C11)	07:17		08:32 (C12)	07:22		15:38 (C16)	08:24	
	22:09	33	06:20 (C10)	21:28	18	06:16 (C10)	20:14	32	07:54 (C11)	18:53	34	18:14 (C15)	16:36	18	15:56 (C16)	15:45	
2	04:31		05:48 (C10)	05:17		06:00 (C10)	06:19		07:21 (C11)	07:19		08:29 (C12)	07:25		15:40 (C16)	08:26	
	22:08	32	06:20 (C10)	21:26	15	06:15 (C10)	20:11	33	07:54 (C11)	18:51	40	18:14 (C15)	16:34	14	15:54 (C16)	15:44	
3	04:32		05:48 (C10)	05:19		06:03 (C10)	06:21		07:20 (C11)	07:21		08:26 (C12)	07:27		15:43 (C16)	08:27	
	22:08	33	06:21 (C10)	21:24	9	06:12 (C10)	20:09	34	07:54 (C11)	18:48	44	18:13 (C15)	16:31	7	15:50 (C16)	15:43	
4	04:33		05:48 (C10)	05:21			06:23		07:19 (C11)	07:23		08:25 (C12)	07:29			08:29	
	22:07	33	06:21 (C10)	21:21			20:06	34	07:53 (C11)	18:45	45	18:12 (C15)	16:29			15:42	
5	04:34		05:48 (C10)	05:23			06:25		07:18 (C11)	07:25		08:23 (C12)	07:31			08:31	
	22:06	34	06:22 (C10)	21:19			20:03	35	07:53 (C11)	18:43	45	18:11 (C15)	16:27			15:42	
6	04:35		05:48 (C10)	05:25			06:27		07:18 (C11)	07:27		08:22 (C12)	07:33			08:32	
	22:06	34	06:22 (C10)	21:17			20:01	35	07:53 (C11)	18:40	44	18:09 (C15)	16:25			15:41	
7	04:36		05:48 (C10)	05:27			06:29		07:18 (C11)	07:29		08:21 (C12)	07:35			08:34	
	22:05	34	06:22 (C10)	21:15			19:58	35	07:53 (C11)	18:38	41	18:06 (C15)	16:23			15:40	
8	04:37		05:48 (C10)	05:29			06:31		07:18 (C11)	07:31		08:21 (C12)	07:38			08:35	
	22:04	35	06:23 (C10)	21:13			19:55	34	07:52 (C11)	18:35	37	18:04 (C15)	16:21			15:40	
9	04:38		05:48 (C10)	05:31			06:33		07:18 (C11)	07:33		08:20 (C12)	07:40			08:36	
	22:03	35	06:23 (C10)	21:11			19:53	33	07:51 (C11)	18:32	28	08:48 (C12)	16:19			15:39	
10	04:39		05:48 (C10)	05:33			06:35		07:19 (C11)	07:36		08:21 (C12)	07:42			08:38	
	22:02	35	06:23 (C10)	21:08			19:50	32	07:51 (C11)	18:30	28	08:49 (C12)	16:17			15:39	
11	04:41		05:48 (C10)	05:35			06:37		07:19 (C11)	07:38		08:20 (C12)	07:44			08:39	
	22:01	35	06:23 (C10)	21:06			19:47	31	07:50 (C11)	18:27	28	08:48 (C12)	16:15			15:38	
12	04:42		05:49 (C10)	05:37			06:39		07:20 (C11)	07:40		08:20 (C12)	07:46			08:40	
	22:00	35	06:24 (C10)	21:04			19:45	28	07:48 (C11)	18:25	28	08:48 (C12)	16:13			15:38	
13	04:43		05:49 (C10)	05:39			06:41		07:21 (C11)	07:42		08:20 (C12)	07:48			08:41	
	21:59	35	06:24 (C10)	21:01			19:42	26	07:47 (C11)	18:22	27	08:47 (C12)	16:11			15:38	
14	04:45		05:49 (C10)	05:41			06:43		07:22 (C11)	07:44		08:21 (C12)	07:50			08:42	
	21:58	35	06:24 (C10)	20:59			19:39	23	07:45 (C11)	18:19	37	16:55 (C16)	16:09			15:38	
15	04:46		05:48 (C10)	05:43			06:45		07:23 (C11)	07:46		08:21 (C12)	07:53			08:43	
	21:56	36	06:24 (C10)	20:57			19:37	20	07:43 (C11)	18:17	40	16:57 (C16)	16:07			15:38	
16	04:48		05:49 (C10)	05:45			06:47		07:26 (C11)	07:48		08:23 (C12)	07:55			08:44	
	21:55	35	06:24 (C10)	20:54			19:34	13	07:39 (C11)	18:14	42	17:00 (C16)	16:06			15:38	
17	04:49		05:49 (C10)	05:47			06:49			07:50		08:24 (C12)	07:57			08:45	
	21:54	35	06:24 (C10)	20:52			19:31			18:12	41	17:01 (C16)	16:04			15:38	
18	04:51		05:50 (C10)	05:49			06:51			07:52		08:26 (C12)	07:59			08:46	
	21:52	35	06:25 (C10)	20:49			19:28			18:09	38	17:01 (C16)	16:02			15:38	
19	04:52		05:49 (C10)	05:51			06:53			07:54		16:34 (C16)	08:01			08:47	
	21:51	35	06:24 (C10)	20:47			19:26			18:07	28	17:02 (C16)	16:01			15:38	
20	04:54		05:50 (C10)	05:53			06:55			07:56		16:34 (C16)	08:03			08:48	
	21:49	35	06:25 (C10)	20:44			19:23			18:04	29	17:03 (C16)	15:59			15:39	
21	04:56		05:50 (C10)	05:55			06:57			07:59		16:33 (C16)	08:05			08:48	
	21:48	34	06:24 (C10)	20:42			19:20			18:02	30	17:03 (C16)	15:58			15:39	
22	04:57		05:51 (C10)	05:57			06:59			08:01		16:33 (C16)	08:07			08:49	
	21:46	33	06:24 (C10)	20:39			19:18			17:59	30	17:03 (C16)	15:56			15:39	
23	04:59		05:50 (C10)	05:59			07:01			08:03		16:33 (C16)	08:09			08:49	
	21:44	34	06:24 (C10)	20:37			19:15			17:57	30	17:03 (C16)	15:55			15:40	
24	05:01		05:51 (C10)	06:01			07:03		17:59 (C15)	08:05		16:33 (C16)	08:11			08:50	
	21:43	33	06:24 (C10)	20:34			19:12	11	18:10 (C15)	17:54	30	17:03 (C16)	15:53			15:40	
25	05:03		05:51 (C10)	06:03		07:34 (C11)	07:05		17:56 (C15)	07:07		15:32 (C16)	08:13			08:50	
	21:41	32	06:23 (C10)	20:32	10	07:44 (C11)	19:10	16	18:12 (C15)	16:52	30	16:02 (C16)	15:52			15:41	
26	05:04		05:52 (C10)	06:05		07:30 (C11)	07:07		17:54 (C15)	07:09		15:32 (C16)	08:15			08:50	
	21:39	31	06:23 (C10)	20:29	17	07:47 (C11)	19:07	19	18:13 (C15)	16:50	29	16:01 (C16)	15:51			15:42	
27	05:06		05:53 (C10)	06:07		07:28 (C11)	07:09		17:53 (C15)	07:12		15:33 (C16)	08:17			08:51	
	21:37	29	06:22 (C10)	20:27	21	07:49 (C11)	19:04	20	18:13 (C15)	16:47	29	16:02 (C16)	15:49			15:43	
28	05:08		05:53 (C10)	06:09		07:26 (C11)	07:11		17:52 (C15)	07:14		15:34 (C16)	08:19			08:51	
	21:35	28	06:21 (C10)	20:24	25	07:51 (C11)	19:01	22	18:14 (C15)	16:45	27	16:01 (C16)	15:48			15:44	
29	05:10		05:54 (C10)	06:11		07:25 (C11)	07:13		17:51 (C15)	07:16		15:35 (C16)	08:20			08:51	
	21:34	26	06:20 (C10)	20:22	27	07:52 (C11)	18:59	23	18:14 (C15)	16:43	25	16:00 (C16)	15:47			15:45	
30	05:12		05:55 (C10)	06:13		07:24 (C11)	07:15		17:51 (C15)	07:18		15:35 (C16)	08:22			08:51	
	21:32	25	06:20 (C10)	20:19	29	07:53 (C11)	18:56	24	18:15 (C15)	16:40	24	15:59 (C16)	15:46			15:46	
31	05:14		05:57 (C10)	06:15		07:23 (C11)				07:20		15:36 (C16)				08:51	
	21:30	22	06:19 (C10)	20:16	30	07:53 (C11)				16:38	21	15:57 (C16)				15:47	
Potential sun hours	529			469				385			324			247		216	
Total, worst case		1016				201			613		1029			39			
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			0.65		0.65			0.67			
Total reduction		0.32				0.32			0.27		0.16			0.05			
Total, real		328				64			167		169			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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January	February	March	April	May	June
1	08:50	08:15	07:11	07:48 (C12)	06:49	07:28 (C11)
	15:48	16:45	17:47	28 08:16 (C12)	19:53	31 07:59 (C11)
2	08:50	08:13	07:08	07:48 (C12)	06:46	07:26 (C11)
	15:49	16:47	17:50	28 08:16 (C12)	19:55	33 07:59 (C11)
3	08:50	08:11	07:05	07:48 (C12)	06:43	07:25 (C11)
	15:51	16:50	17:52	29 08:17 (C12)	19:57	34 07:59 (C11)
4	08:50	08:09	07:03	07:47 (C12)	06:41	07:25 (C11)
	15:52	16:52	17:54	29 08:16 (C12)	19:59	34 07:59 (C11)
5	08:49	08:07	07:00	07:47 (C12)	06:38	07:24 (C11)
	15:53	16:54	17:56	32 17:26 (C15)	20:01	35 07:59 (C11)
6	08:49	08:05	06:58	07:48 (C12)	06:35	07:24 (C11)
	15:55	16:56	17:58	38 17:30 (C15)	20:03	35 07:59 (C11)
7	08:48	08:02	06:55	07:48 (C12)	06:33	07:23 (C11)
	15:56	16:59	18:00	42 17:32 (C15)	20:05	36 07:59 (C11)
8	08:47	08:00	06:53	07:48 (C12)	06:30	07:23 (C11)
	15:58	17:01	18:03	44 17:33 (C15)	20:07	35 07:58 (C11)
9	08:47	07:58	06:50	07:49 (C12)	06:27	07:23 (C11)
	15:59	17:03	18:05	44 17:35 (C15)	20:09	35 07:58 (C11)
10	08:46	07:56	06:47	07:50 (C12)	06:25	07:23 (C11)
	16:01	17:05	18:07	43 17:35 (C15)	20:12	34 07:57 (C11)
11	08:45	07:54	06:45	07:51 (C12)	06:22	07:24 (C11)
	16:03	17:08	18:09	41 17:35 (C15)	20:14	32 07:56 (C11)
12	08:44	07:52	06:42	07:53 (C12)	06:20	07:24 (C11)
	16:04	17:10	18:11	35 17:34 (C15)	20:16	31 07:55 (C11)
13	08:43	07:49	06:39	17:11 (C15)	06:17	07:25 (C11)
	16:06	17:12	18:13	24 17:35 (C15)	20:18	29 07:54 (C11)
14	08:42	07:47	06:37	17:11 (C15)	06:14	07:25 (C11)
	16:08	17:14	18:15	23 17:34 (C15)	20:20	27 07:52 (C11)
15	08:41	07:45	06:34	17:11 (C15)	06:12	07:27 (C11)
	16:10	17:16	18:17	22 17:33 (C15)	20:22	24 07:51 (C11)
16	08:40	07:42	06:31	17:12 (C15)	06:09	07:28 (C11)
	16:12	17:19	18:19	20 17:32 (C15)	20:24	20 07:48 (C11)
17	08:39	07:40	06:29	17:12 (C15)	06:07	07:30 (C11)
	16:14	17:21	18:22	19 17:31 (C15)	20:26	16 07:46 (C11)
18	08:37	07:38	06:26	17:13 (C15)	06:04	07:33 (C11)
	16:16	17:23	18:24	16 17:29 (C15)	20:28	8 07:41 (C11)
19	08:36	07:35	06:23	17:16 (C15)	06:02	04:55
	16:18	17:25	18:26	11 17:27 (C15)	20:30	21:31
20	08:35	07:33	06:21	05:59		04:53
	16:20	17:28	18:28	20:32		21:33
21	08:33	07:30	06:18	05:57		04:52
	16:22	17:30	18:30	20:34		21:35
22	08:32	07:28	06:15	05:54		04:50
	16:24	17:32	18:32	20:37		21:36
23	08:30	07:26	06:13	05:52		04:48
	16:26	17:34	18:34	20:39		21:38
24	08:29	07:23	06:10	05:49		04:47
	16:28	17:36	18:36	20:41		21:40
25	08:27	07:21	06:07	05:47		04:45
	16:30	17:39	18:38	20:43		21:41
26	08:25	07:18	06:05	05:44		04:44
	16:32	17:41	18:40	20:45		21:43
27	08:24	07:16	06:02	06:37 (C11)	05:42	04:42
	16:34	17:43	18:42	15 06:52 (C11)	20:47	21:45
28	08:22	07:13	05:59	06:34 (C11)	05:39	04:41
	16:36	17:45	18:45	20 06:54 (C11)	20:49	21:46
29	08:20		06:57	07:32 (C11)	05:37	04:39
	16:39		19:47	24 07:56 (C11)	20:51	21:48
30	08:18		06:54	07:30 (C11)	05:35	04:38
	16:41		19:49	27 07:57 (C11)	20:53	21:49
31	08:16		06:51	07:28 (C11)		04:37
	16:43		19:51	29 07:57 (C11)		21:51
Potential sun hours	235	266	366	426	508	528
Total, worst case		608	683	529	658	1007
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	0.67	0.67
Total reduction		0.13	0.26	0.32	0.37	0.37
Total, real		79	176	169	245	369

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		05:58 (C10)	06:17		07:23 (C11)	07:17		08:35 (C12)	07:22		15:39 (C16)	08:24						
	22:09	33	06:20 (C10)	21:28	18	06:16 (C10)	20:14	32	07:55 (C11)	18:53	31	18:14 (C15)	16:36	18	15:57 (C16)	15:45						
2	04:31		05:47 (C10)	05:17		06:00 (C10)	06:19		07:22 (C11)	07:19		08:31 (C12)	07:25		15:41 (C16)	08:26						
	22:08	34	06:21 (C10)	21:26	14	06:14 (C10)	20:11	34	07:56 (C11)	18:51	39	18:14 (C15)	16:34	13	15:54 (C16)	15:44						
3	04:32		05:47 (C10)	05:19		06:04 (C10)	06:21		07:21 (C11)	07:21		08:29 (C12)	07:27		15:45 (C16)	08:27						
	22:08	34	06:21 (C10)	21:24	6	06:10 (C10)	20:09	35	07:56 (C11)	18:48	42	18:13 (C15)	16:31	5	15:50 (C16)	15:43						
4	04:33		05:47 (C10)	05:21			06:23		07:20 (C11)	07:23		08:27 (C12)	07:29			08:29						
	22:07	35	06:22 (C10)	21:21			20:06	35	07:55 (C11)	18:45	44	18:12 (C15)	16:29			15:42						
5	04:34		05:48 (C10)	05:23			06:25		07:19 (C11)	07:25		08:25 (C12)	07:31			08:31						
	22:06	34	06:22 (C10)	21:19			20:03	36	07:55 (C11)	18:43	45	18:11 (C15)	16:27			15:42						
6	04:35		05:48 (C10)	05:25			06:27		07:19 (C11)	07:27		08:24 (C12)	07:33			08:32						
	22:06	34	06:22 (C10)	21:17			20:01	35	07:54 (C11)	18:40	43	18:09 (C15)	16:25			15:41						
7	04:36		05:48 (C10)	05:27			06:29		07:19 (C11)	07:29		08:23 (C12)	07:35			08:34						
	22:05	35	06:23 (C10)	21:15			19:58	35	07:54 (C11)	18:38	40	18:06 (C15)	16:23			15:40						
8	04:37		05:48 (C10)	05:29			06:31		07:19 (C11)	07:31		08:22 (C12)	07:38			08:35						
	22:04	35	06:23 (C10)	21:13			19:55	35	07:54 (C11)	18:35	37	18:04 (C15)	16:21			15:40						
9	04:38		05:48 (C10)	05:31			06:33		07:19 (C11)	07:33		08:22 (C12)	07:40			08:36						
	22:03	35	06:23 (C10)	21:11			19:53	34	07:53 (C11)	18:32	28	08:50 (C12)	16:19			15:39						
10	04:39		05:48 (C10)	05:33			06:35		07:19 (C11)	07:36		08:22 (C12)	07:42			08:38						
	22:02	35	06:23 (C10)	21:08			19:50	33	07:52 (C11)	18:30	29	08:51 (C12)	16:17			15:39						
11	04:41		05:47 (C10)	05:35			06:37		07:20 (C11)	07:38		08:22 (C12)	07:44			08:39						
	22:01	36	06:23 (C10)	21:06			19:47	31	07:51 (C11)	18:27	28	08:50 (C12)	16:15			15:38						
12	04:42		05:48 (C10)	05:37			06:39		07:20 (C11)	07:40		08:22 (C12)	07:46			08:40						
	22:00	36	06:24 (C10)	21:04			19:45	30	07:50 (C11)	18:25	28	08:50 (C12)	16:13			15:38						
13	04:43		05:48 (C10)	05:39			06:41		07:21 (C11)	07:42		08:22 (C12)	07:48			08:41						
	21:59	36	06:24 (C10)	21:01			19:42	27	07:48 (C11)	18:22	27	08:49 (C12)	16:11			15:38						
14	04:45		05:48 (C10)	05:41			06:43		07:22 (C11)	07:44		08:22 (C12)	07:50			08:42						
	21:58	36	06:24 (C10)	20:59			19:39	25	07:47 (C11)	18:19	37	16:56 (C16)	16:09			15:38						
15	04:46		05:48 (C10)	05:43			06:45		07:24 (C11)	07:46		08:22 (C12)	07:53			08:43						
	21:56	36	06:24 (C10)	20:57			19:37	21	07:45 (C11)	18:17	42	16:58 (C16)	16:07			15:38						
16	04:48		05:49 (C10)	05:45			06:47		07:26 (C11)	07:48		08:24 (C12)	07:55			08:44						
	21:55	35	06:24 (C10)	20:54			19:34	16	07:42 (C11)	18:14	42	17:00 (C16)	16:06			15:38						
17	04:49		05:48 (C10)	05:47			06:49		07:31 (C11)	07:50		08:25 (C12)	07:57			08:45						
	21:54	36	06:24 (C10)	20:52			19:31	6	07:37 (C11)	18:12	42	17:01 (C16)	16:04			15:38						
18	04:51		05:49 (C10)	05:49			06:51		07:52	08:26 (C12)	07:59					08:46						
	21:52	36	06:25 (C10)	20:49			19:28			18:09	41	17:02 (C16)	16:02			15:38						
19	04:52		05:49 (C10)	05:51			06:53		07:54			08:29 (C12)	08:01			08:47						
	21:51	35	06:24 (C10)	20:47			19:26		18:07		36	17:02 (C16)	16:01			15:38						
20	04:54		05:50 (C10)	05:53			06:55		07:56			16:35 (C16)	08:03			08:48						
	21:49	35	06:25 (C10)	20:44			19:23		18:04		28	17:03 (C16)	15:59			15:39						
21	04:56		05:50 (C10)	05:55			06:57		07:59			16:34 (C16)	08:05			08:48						
	21:48	34	06:24 (C10)	20:42			19:20		18:02		29	17:03 (C16)	15:58			15:39						
22	04:57		05:50 (C10)	05:57			06:59		08:01			16:34 (C16)	08:07			08:49						
	21:46	34	06:24 (C10)	20:39			19:18		17:59		29	17:03 (C16)	15:56			15:39						
23	04:59		05:50 (C10)	05:59			07:01		08:03			16:34 (C16)	08:09			08:49						
	21:44	33	06:23 (C10)	20:37			19:15		17:57		30	17:04 (C16)	15:55			15:40						
24	05:01		05:51 (C10)	06:01			07:03		18:00 (C15)	08:05		16:34 (C16)	08:11			08:50						
	21:43	32	06:23 (C10)	20:34			19:12	9	18:09 (C15)	17:54	29	17:03 (C16)	15:53			15:40						
25	05:03		05:51 (C10)	06:03		07:35 (C11)	07:05		17:57 (C15)	07:07		15:34 (C16)	08:13			08:50						
	21:41	31	06:22 (C10)	20:32	10	07:45 (C11)	19:10	14	18:11 (C15)	16:52	29	16:03 (C16)	15:52			15:41						
26	05:04		05:52 (C10)	06:05		07:32 (C11)	07:07		17:55 (C15)	07:09		15:33 (C16)	08:15			08:50						
	21:39	30	06:22 (C10)	20:29	16	07:48 (C11)	19:07	17	18:12 (C15)	16:50	29	16:02 (C16)	15:51			15:42						
27	05:06		05:53 (C10)	06:07		07:29 (C11)	07:09		17:53 (C15)	07:12		15:34 (C16)	08:17			08:51						
	21:37	29	06:22 (C10)	20:27	21	07:50 (C11)	19:04	20	18:13 (C15)	16:47	28	16:02 (C16)	15:49			15:43						
28	05:08		05:53 (C10)	06:09		07:27 (C11)	07:11		17:52 (C15)	07:14		15:35 (C16)	08:19			08:51						
	21:35	28	06:21 (C10)	20:24	25	07:52 (C11)	19:01	21	18:13 (C15)	16:45	26	16:01 (C16)	15:48			15:44						
29	05:10		05:54 (C10)	06:11		07:26 (C11)	07:13		17:51 (C15)	07:16		15:36 (C16)	08:20			08:51						
	21:34	26	06:20 (C10)	20:22	27	07:53 (C11)	18:59	23	18:14 (C15)	16:43	25	16:01 (C16)	15:47			15:45						
30	05:12		05:55 (C10)	06:13		07:25 (C11)	07:15		17:51 (C15)	07:18		15:36 (C16)	08:22			08:51						
	21:32	24	06:19 (C10)	20:19	29	07:54 (C11)	18:56	24	18:15 (C15)	16:40	24	16:00 (C16)	15:46			15:46						
31	05:14		05:57 (C10)	06:15		07:24 (C11)			07:20			15:37 (C16)				08:51						
	21:30	21	06:18 (C10)	20:16	31	07:55 (C11)			16:38	21	15:58 (C16)		15:47			15:47						
Potential sun hours	529			469			385			324			247			216						
Total, worst case		1023				197		628			1028		36									
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		0.65			0.65		0.67									
Total reduction		0.32				0.32		0.27			0.16		0.05									
Total, real		330				63		171			169		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April			May			June		
1	08:51		12:55 (C13)	08:15		07:11		06:49					05:32		06:29 (C1)	04:36		
	15:48	14	13:09 (C13)	16:45		17:47		19:53					20:55	34	07:03 (C1)	21:53		
2	08:50		12:57 (C13)	08:13		07:08		06:46					05:30		06:29 (C1)	04:35		
	15:49	12	13:09 (C13)	16:47		17:50		19:55					20:57	33	07:02 (C1)	21:54		
3	08:50		12:58 (C13)	08:11		07:06		06:43					05:28		06:29 (C1)	04:34		
	15:51	10	13:08 (C13)	16:50		17:52		19:57					21:00	33	07:02 (C1)	21:55		
4	08:50		13:00 (C13)	08:09		07:03		06:41					05:26		06:30 (C1)	04:33		
	15:52	7	13:07 (C13)	16:52		17:54		19:59					21:02	31	07:01 (C1)	21:57		
5	08:49			08:07		07:00		06:38					05:23		06:30 (C1)	04:32		
	15:53			16:54		17:56		20:01					21:04	31	07:01 (C1)	21:58		
6	08:49			08:05		06:58		06:35					05:21		06:31 (C1)	04:31		
	15:55			16:56		17:58		20:03					21:06	29	07:00 (C1)	21:59		
7	08:48			08:03		06:55		06:33					05:19		06:32 (C1)	04:30		
	15:56			16:59		18:00		20:05					21:08	27	06:59 (C1)	22:00		
8	08:48			08:00		06:53		06:30					05:17		06:32 (C1)	04:29		
	15:58			17:01		18:03		20:08					21:10	26	06:58 (C1)	22:01		
9	08:47			07:58		06:50		06:27					05:15		06:33 (C1)	04:28		
	15:59			17:03		18:05		20:10					21:12	24	06:57 (C1)	22:02		
10	08:46			07:56		06:47		06:25					05:13		06:35 (C1)	04:28		
	16:01			17:05		18:07		20:12					21:14	20	06:55 (C1)	22:03		
11	08:45			07:54		06:45		06:22					05:10		06:36 (C1)	04:27		
	16:03			17:08		18:09		20:14					21:16	17	06:53 (C1)	22:04		
12	08:44			07:52		06:42		06:20					05:08		06:38 (C1)	04:27		
	16:04			17:10		18:11		20:16					21:18	13	06:51 (C1)	22:05		
13	08:43			07:49		06:39		06:17					05:06		06:42 (C1)	04:26		
	16:06			17:12		18:13		20:18					21:20	4	06:46 (C1)	22:06		
14	08:42			07:47		06:37		06:14					05:04			04:26		
	16:08			17:14		18:15		20:20					21:22			22:07		
15	08:41			07:45		06:34		06:12					05:02			04:26		
	16:10			17:17		18:17		20:22					21:24			22:07		
16	08:40			07:43		06:32		06:09				06:47 (C1)	05:01			04:25		
	16:12			17:19		18:20		20:24		4		06:51 (C1)	21:25			22:08		
17	08:39			07:40		06:29		06:07				06:42 (C1)	04:59			04:25		
	16:14			17:21		18:22		20:26		14		06:56 (C1)	21:27			22:08		
18	08:37			07:38		06:26		06:04				06:38 (C1)	04:57			04:25		
	16:16			17:23		18:24		20:28		20		06:58 (C1)	21:29			22:09		
19	08:36			07:35		06:24		06:02				06:37 (C1)	04:55			04:25		
	16:18			17:25		18:26		20:30		23		07:00 (C1)	21:31			22:09		
20	08:35			07:33		06:21		05:59				06:35 (C1)	04:53			04:25		
	16:20			17:28		18:28		20:33		25		07:00 (C1)	21:33			22:10		
21	08:33			07:31		06:18		05:57				06:34 (C1)	04:52			04:25		
	16:22			17:30		18:30		20:35		28		07:02 (C1)	21:35			22:10		
22	08:32			07:28		06:15		05:54				06:33 (C1)	04:50			04:25		
	16:24			17:32		18:32		20:37		30		07:03 (C1)	21:37			22:10		
23	08:30			07:26		06:13		05:52				06:31 (C1)	04:48			04:26		
	16:26			17:34		18:34		20:39		32		07:03 (C1)	21:38			22:10		
24	08:29			07:23		06:10		05:49				06:31 (C1)	04:47			04:26		
	16:28			17:37		18:36		20:41		32		07:03 (C1)	21:40			22:10		
25	08:27			07:21		06:07		05:47				06:31 (C1)	04:45			04:26		
	16:30			17:39		18:38		20:43		33		07:04 (C1)	21:42			22:10		
26	08:26			07:18		06:05		05:44				06:29 (C1)	04:44			04:27		
	16:32			17:41		18:40		20:45		34		07:03 (C1)	21:43			22:10		
27	08:24			07:16		06:02		05:42				06:29 (C1)	04:42			04:27		
	16:34			17:43		18:43		20:47		35		07:04 (C1)	21:45			22:10		
28	08:22			07:13		05:59		05:40				06:29 (C1)	04:41			04:28		
	16:36			17:45		18:45		20:49		35		07:04 (C1)	21:47			22:10		
29	08:20					06:57		05:37				06:29 (C1)	04:39			04:28		
	16:39					19:47		20:51		35		07:04 (C1)	21:48			22:10		
30	08:18					06:54		05:35				06:28 (C1)	04:38			04:29		
	16:41					19:49		20:53		35		07:03 (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		43						415				322						
Sun reduction		0.13						0.50				0.57						
Oper. time red.		0.98						0.98				0.98						
Wind dir. red.		0.64						0.65				0.65						
Total reduction		0.08						0.32				0.36						
Total, real		4						132				116						

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July	August	September	October	November	December
1	04:30	05:16	06:47 (C1)	06:17	07:17	07:23
	22:09	21:28	15 07:02 (C1)	20:14	18:54	16:36
2	04:31	05:17	06:46 (C1)	06:19	07:19	07:25
	22:09	21:26	18 07:04 (C1)	20:11	18:51	16:34
3	04:32	05:19	06:44 (C1)	06:21	07:21	07:27
	22:08	21:24	22 07:06 (C1)	20:09	18:48	16:31
4	04:33	05:21	06:43 (C1)	06:23	07:23	07:29
	22:07	21:22	24 07:07 (C1)	20:06	18:46	16:29
5	04:34	05:23	06:41 (C1)	06:25	07:25	07:31
	22:07	21:19	27 07:08 (C1)	20:03	18:43	16:27
6	04:35	05:25	06:41 (C1)	06:27	07:27	07:33
	22:06	21:17	28 07:09 (C1)	20:01	18:40	16:25
7	04:36	05:27	06:40 (C1)	06:29	07:29	07:36
	22:05	21:15	29 07:09 (C1)	19:58	18:38	16:23
8	04:37	05:29	06:39 (C1)	06:31	07:32	07:38
	22:04	21:13	31 07:10 (C1)	19:55	18:35	16:21
9	04:38	05:31	06:39 (C1)	06:33	07:34	07:40
	22:03	21:11	32 07:11 (C1)	19:53	18:32	16:19
10	04:39	05:33	06:38 (C1)	06:35	07:36	07:42
	22:02	21:08	32 07:10 (C1)	19:50	18:30	16:17
11	04:41	05:35	06:37 (C1)	06:37	07:38	07:44
	22:01	21:06	34 07:11 (C1)	19:47	18:27	16:15
12	04:42	05:37	06:37 (C1)	06:39	07:40	07:46
	22:00	21:04	34 07:11 (C1)	19:45	18:25	16:13
13	04:43	05:39	06:37 (C1)	06:41	07:42	07:49
	21:59	21:01	34 07:11 (C1)	19:42	18:22	16:11
14	04:45	05:41	06:37 (C1)	06:43	07:44	07:51
	21:58	20:59	34 07:11 (C1)	19:39	18:19	16:09
15	04:46	05:43	06:37 (C1)	06:45	07:46	07:53
	21:57	20:57	34 07:11 (C1)	19:37	18:17	16:07
16	04:48	05:45	06:37 (C1)	06:47	07:48	07:55
	21:55	20:54	34 07:11 (C1)	19:34	18:14	16:06
17	04:49	05:47	06:36 (C1)	06:49	07:50	07:57
	21:54	20:52	34 07:10 (C1)	19:31	18:12	16:04
18	04:51	05:49	06:36 (C1)	06:51	07:52	07:59
	21:52	20:50	33 07:09 (C1)	19:29	18:09	16:02
19	04:52	05:51	06:37 (C1)	06:53	07:55	08:01
	21:51	20:47	32 07:09 (C1)	19:26	18:07	16:01
20	04:54	05:53	06:37 (C1)	06:55	07:57	08:03
	21:49	20:45	31 07:08 (C1)	19:23	18:04	15:59
21	04:56	05:55	06:38 (C1)	06:57	07:59	08:05
	21:48	20:42	29 07:07 (C1)	19:20	18:02	15:58
22	04:57	05:57	06:38 (C1)	06:59	08:01	08:07
	21:46	20:40	28 07:06 (C1)	19:18	17:59	15:56
23	04:59	05:59	06:39 (C1)	07:01	08:03	08:09
	21:45	20:37	26 07:05 (C1)	19:15	17:57	15:55
24	05:01	06:01	06:41 (C1)	07:03	08:05	08:11
	21:43	20:35	22 07:03 (C1)	19:12	17:55	15:53
25	05:03	06:03	06:42 (C1)	07:05	08:07	08:13
	21:41	20:32	19 07:01 (C1)	19:10	16:52	15:52
26	05:04	06:05	06:44 (C1)	07:07	08:15	08:51
	21:39	20:29	14 06:58 (C1)	19:07	16:50	15:51
27	05:06	06:07		07:09	07:12	08:17
	21:38	20:27		19:04	16:47	15:49
28	05:08	06:09		07:11	07:14	08:19
	21:36	20:24		19:02	16:45	15:48
29	05:10	06:11		07:13	07:16	08:21
	21:34	20:22		18:59	16:43	15:47
30	05:12	06:13		07:15	07:18	08:22
	21:32	20:19		18:56	16:40	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	9	730				408
Sun reduction	0.49	0.50				0.07
Oper. time red.	0.98	0.98				0.98
Wind dir. red.	0.65	0.65				0.64
Total reduction	0.31	0.32				0.04
Total, real	3	231				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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	14:31 (C13) 15:12 (C13)	07:11 17:47	06:49 19:53	05:32 21:52
2	08:50 15:49	08:13 16:47	14:31 (C13) 15:12 (C13)	07:08 17:50	06:46 19:55	05:30 21:54
3	08:50 15:51	08:11 16:50	14:32 (C13) 15:12 (C13)	07:06 17:52	06:43 19:57	05:28 21:55
4	08:50 15:52	08:09 16:52	14:33 (C13) 15:12 (C13)	07:03 17:54	06:41 19:59	05:26 21:57
5	08:49 15:53	14:41 (C13) 14:46 (C13)	08:07 16:54	14:34 (C13) 15:12 (C13)	07:00 17:56	06:38 20:01
6	08:49 15:55	14:38 (C13) 14:49 (C13)	08:05 16:56	14:34 (C13) 15:10 (C13)	06:58 17:58	06:35 20:03
7	08:48 15:56	14:37 (C13) 14:51 (C13)	08:03 16:59	14:35 (C13) 15:10 (C13)	06:55 18:00	06:33 20:05
8	08:47 15:58	14:36 (C13) 14:52 (C13)	08:00 17:01	14:36 (C13) 15:10 (C13)	06:53 18:03	06:30 20:07
9	08:47 15:59	14:35 (C13) 14:54 (C13)	07:58 17:03	14:37 (C13) 15:08 (C13)	06:50 18:05	06:27 20:10
10	08:46 16:01	14:34 (C13) 14:56 (C13)	07:56 17:05	14:38 (C13) 15:07 (C13)	06:47 18:07	06:25 20:12
11	08:45 16:03	14:34 (C13) 14:57 (C13)	07:54 17:08	14:40 (C13) 15:06 (C13)	06:45 18:09	06:22 20:14
12	08:44 16:04	14:33 (C13) 14:58 (C13)	07:52 17:10	14:42 (C13) 15:04 (C13)	06:42 18:11	06:20 20:16
13	08:43 16:06	14:32 (C13) 14:59 (C13)	07:49 17:12	14:45 (C13) 15:01 (C13)	06:39 18:13	06:17 20:18
14	08:42 16:08	14:32 (C13) 15:01 (C13)	07:47 17:14	14:50 (C13) 15:56 (C13)	06:37 18:15	06:14 20:20
15	08:41 16:10	14:31 (C13) 15:02 (C13)	07:45 17:17	06:34 18:17	06:12 20:22	12 06:52 (C4) 05:02
16	08:40 16:12	14:31 (C13) 15:03 (C13)	07:43 17:19	06:31 18:20	06:09 20:24	16 06:54 (C4) 05:01
17	08:39 16:14	14:31 (C13) 15:04 (C13)	07:40 17:21	06:29 18:22	06:07 20:26	20 06:55 (C4) 05:00
18	08:37 16:16	14:31 (C13) 15:05 (C13)	07:38 17:23	06:26 18:24	06:04 20:28	21 06:56 (C4) 05:00
19	08:36 16:18	14:30 (C13) 15:06 (C13)	07:35 17:25	06:23 18:26	06:02 20:30	23 06:56 (C4) 05:00
20	08:35 16:20	14:31 (C13) 15:07 (C13)	07:33 17:28	06:21 18:28	05:59 20:32	23 06:56 (C4) 05:00
21	08:33 16:22	14:30 (C13) 15:08 (C13)	07:31 17:30	06:18 18:30	05:57 20:35	24 06:56 (C4) 05:00
22	08:32 16:24	14:30 (C13) 15:08 (C13)	07:28 17:32	06:15 18:32	05:54 20:37	23 06:56 (C4) 05:00
23	08:30 16:26	14:30 (C13) 15:09 (C13)	07:26 17:34	06:13 18:34	05:52 20:39	23 06:56 (C4) 05:00
24	08:29 16:28	14:29 (C13) 15:09 (C13)	07:23 17:37	06:10 18:36	05:49 20:41	21 06:54 (C4) 05:00
25	08:27 16:30	14:30 (C13) 15:10 (C13)	07:21 17:39	06:07 18:38	05:47 20:43	21 06:54 (C4) 05:00
26	08:25 16:32	14:30 (C13) 15:11 (C13)	07:18 17:41	06:05 18:40	05:44 20:45	19 06:52 (C4) 05:00
27	08:24 16:34	14:30 (C13) 15:11 (C13)	07:16 17:43	06:02 18:43	05:42 20:47	16 06:51 (C4) 05:00
28	08:22 16:36	14:30 (C13) 15:12 (C13)	07:13 17:45	05:59 18:45	05:40 20:49	13 06:49 (C4) 05:00
29	08:20 16:39	14:31 (C13) 15:12 (C13)		06:57 19:47	05:37 20:51	7 06:46 (C4) 05:00
30	08:18 16:41	14:31 (C13) 15:12 (C13)		06:54 19:49	05:35 20:53	
31	08:17 16:43	14:30 (C13) 15:11 (C13)		06:51 19:51		
Potential sun hours	235	266	366	426	508	529
Total, worst case	835	434		313		
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	73	57		101		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	14:08 (C13) 15:45
2	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	29 16:34	14:37 (C13) 15:44
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	32 16:34	14:38 (C13) 15:44
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	33 16:31	14:39 (C13) 15:43
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	36 16:29	14:40 (C13) 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	37 16:27	14:40 (C13) 15:42
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	38 16:25	14:41 (C13) 15:41
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	39 16:23	14:41 (C13) 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	40 16:19	14:42 (C13) 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	41 16:17	14:42 (C13) 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	41 16:15	14:43 (C13) 15:38
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	41 16:13	14:43 (C13) 15:38
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	41 16:11	14:44 (C13) 15:38
14	04:45 21:58	05:41 20:59	06:46 (C4) 06:55 (C4)	06:43 19:39	41 16:09	14:43 (C13) 15:38
15	04:46 21:57	05:43 20:57	06:44 (C4) 06:57 (C4)	06:45 19:37	41 16:08	14:43 (C13) 15:38
16	04:48 21:55	05:45 20:54	06:42 (C4) 06:58 (C4)	06:47 19:34	41 16:06	14:43 (C13) 15:38
17	04:49 21:54	05:47 20:52	06:40 (C4) 06:58 (C4)	06:49 19:31	40 16:04	14:43 (C13) 15:38
18	04:51 21:52	05:49 20:49	06:39 (C4) 06:59 (C4)	06:51 19:29	40 16:02	14:43 (C13) 15:38
19	04:52 21:51	05:51 20:47	06:38 (C4) 07:00 (C4)	06:53 19:26	40 16:01	14:43 (C13) 15:38
20	04:54 21:49	05:53 20:45	06:38 (C4) 07:00 (C4)	06:55 19:23	39 16:01	14:44 (C13) 15:38
21	04:56 21:48	05:55 20:42	06:37 (C4) 07:00 (C4)	06:57 19:20	38 15:58	14:43 (C13) 15:39
22	04:57 21:46	05:57 20:40	06:37 (C4) 07:00 (C4)	06:59 19:18	38 15:57	14:43 (C13) 15:39
23	04:59 21:45	05:59 20:37	06:37 (C4) 07:00 (C4)	07:01 19:15	36 15:56	14:43 (C13) 15:39
24	05:01 21:43	06:01 20:35	06:37 (C4) 07:00 (C4)	07:03 19:12	36 15:55	14:43 (C13) 15:40
25	05:03 21:41	06:03 20:32	06:37 (C4) 06:59 (C4)	07:05 19:10	34 15:53	14:42 (C13) 15:40
26	05:04 21:39	06:05 20:29	06:37 (C4) 06:57 (C4)	07:07 19:07	33 15:52	14:42 (C13) 15:41
27	05:06 21:37	06:07 20:27	06:37 (C4) 06:56 (C4)	07:09 19:04	31 15:51	14:41 (C13) 15:42
28	05:08 21:36	06:09 20:24	06:39 (C4) 06:55 (C4)	07:11 19:02	31 15:49	14:42 (C13) 15:43
29	05:10 21:34	06:11 20:22	06:41 (C4) 06:53 (C4)	07:13 18:59	29 15:48	14:41 (C13) 15:44
30	05:12 21:32	06:13 20:19	06:43 (C4) 06:50 (C4)	07:15 18:56	27 15:47	14:41 (C13) 15:45
31	05:14 21:30	06:15 20:17		07:20 16:38	25 15:46	14:40 (C13) 15:46
Potential sun hours	529	469	385	324	247	216
Total, worst case		308		76	1086	111
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		99		13	59	5

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	04:56 21:43	05:01 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)	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		09:00 (C11)	07:11		06:49			05:32		06:19 (C8)	04:36		06:17 (C8)	
	15:48	13	09:43 (C12)	16:45	28	09:28 (C11)	17:47		19:53			20:55	32	06:51 (C8)	21:52	37	06:54 (C8)	
2	08:50		09:29 (C12)	08:13		08:59 (C11)	07:08		07:54 (C10)	06:46		05:30		06:18 (C8)	04:35		06:17 (C8)	
	15:49	14	09:43 (C12)	16:47	30	09:29 (C11)	17:50	8	08:02 (C10)	19:55		20:57	35	06:53 (C8)	21:54	37	06:54 (C8)	
3	08:50		09:29 (C12)	08:11		08:59 (C11)	07:05		07:49 (C10)	06:43		05:28		06:17 (C8)	04:34		06:17 (C8)	
	15:51	16	09:45 (C12)	16:50	31	09:30 (C11)	17:52	18	08:07 (C10)	19:57		20:59	37	06:54 (C8)	21:55	37	06:54 (C8)	
4	08:50		09:28 (C12)	08:09		08:59 (C11)	07:03		07:46 (C10)	06:41		05:26		06:16 (C8)	04:33		06:18 (C8)	
	15:52	17	09:45 (C12)	16:52	31	09:30 (C11)	17:54	23	08:09 (C10)	19:59		21:01	39	06:55 (C8)	21:56	35	06:53 (C8)	
5	08:49		09:28 (C12)	08:07		08:58 (C11)	07:00		07:43 (C10)	06:38		05:23		06:15 (C8)	04:32		06:19 (C8)	
	15:53	18	09:46 (C12)	16:54	32	09:30 (C11)	17:56	28	08:11 (C10)	20:01		21:03	40	06:55 (C8)	21:58	35	06:54 (C8)	
6	08:49		09:29 (C12)	08:05		08:59 (C11)	06:58		07:42 (C10)	06:35		05:21		06:15 (C8)	04:31		06:19 (C8)	
	15:55	19	09:48 (C12)	16:56	32	09:31 (C11)	17:58	31	08:13 (C10)	20:03		21:05	41	06:56 (C8)	21:59	34	06:53 (C8)	
7	08:48		09:28 (C12)	08:02		08:59 (C11)	06:55		07:40 (C10)	06:33		05:19		06:14 (C8)	04:30		06:20 (C8)	
	15:56	20	09:48 (C12)	16:58	32	09:31 (C11)	18:00	34	08:14 (C10)	20:05		21:08	42	06:56 (C8)	22:00	32	06:52 (C8)	
8	08:47		09:28 (C12)	08:00		09:00 (C11)	06:53		07:38 (C10)	06:30		05:17		06:13 (C8)	04:29		06:21 (C8)	
	15:58	21	09:49 (C12)	17:01	31	09:31 (C11)	18:02	36	08:14 (C10)	20:07		21:10	44	06:57 (C8)	22:01	32	06:53 (C8)	
9	08:47		09:29 (C12)	07:58		08:59 (C11)	06:50		07:38 (C10)	06:27		05:15		06:13 (C8)	04:28		06:21 (C8)	
	15:59	21	09:50 (C12)	17:03	32	09:31 (C11)	18:05	38	08:16 (C10)	20:09		21:12	44	06:57 (C8)	22:02	31	06:52 (C8)	
10	08:46		09:29 (C12)	07:56		09:00 (C11)	06:47		07:37 (C10)	06:25		05:12		06:12 (C8)	04:28		06:22 (C8)	
	16:01	22	09:51 (C12)	17:05	31	09:31 (C11)	18:07	39	08:16 (C10)	20:12		21:14	45	06:57 (C8)	22:03	30	06:52 (C8)	
11	08:45		09:29 (C12)	07:54		09:00 (C11)	06:45		07:35 (C10)	06:22		05:10		06:12 (C8)	04:27		06:22 (C8)	
	16:03	22	09:51 (C12)	17:07	30	09:30 (C11)	18:09	41	08:16 (C10)	20:14		21:16	45	06:57 (C8)	22:04	29	06:51 (C8)	
12	08:44		09:28 (C12)	07:52		09:01 (C11)	06:42		07:34 (C10)	06:20		05:08		06:12 (C8)	04:27		06:23 (C8)	
	16:04	23	09:51 (C12)	17:10	28	09:29 (C11)	18:11	42	08:16 (C10)	20:16		21:18	45	06:57 (C8)	22:05	29	06:52 (C8)	
13	08:43		09:29 (C12)	07:49		09:02 (C11)	06:39		07:35 (C10)	06:17		05:06		06:11 (C8)	04:26		06:23 (C8)	
	16:06	23	09:52 (C12)	17:12	27	09:29 (C11)	18:13	41	08:16 (C10)	20:18		21:19	46	06:57 (C8)	22:06	29	06:52 (C8)	
14	08:42		09:29 (C12)	07:47		09:02 (C11)	06:37		07:34 (C10)	06:14		05:04		06:12 (C8)	04:26		06:23 (C8)	
	16:08	24	09:53 (C12)	17:14	26	09:28 (C11)	18:15	42	08:16 (C10)	20:20		21:21	46	06:58 (C8)	22:06	28	06:51 (C8)	
15	08:41		09:29 (C12)	07:45		09:04 (C11)	06:34		07:33 (C10)	06:12		05:02		06:12 (C8)	04:26		06:24 (C8)	
	16:10	24	09:53 (C12)	17:16	23	09:27 (C11)	18:17	43	08:16 (C10)	20:22		21:23	46	06:58 (C8)	22:07	27	06:51 (C8)	
16	08:40		09:30 (C12)	07:42		09:05 (C11)	06:31		07:33 (C10)	06:09		05:00		06:11 (C8)	04:25		06:24 (C8)	
	16:12	24	09:54 (C12)	17:19	20	09:25 (C11)	18:19	43	08:16 (C10)	20:24		21:25	46	06:57 (C8)	22:08	27	06:51 (C8)	
17	08:39		09:30 (C12)	07:40		09:07 (C11)	06:29		07:33 (C10)	06:07		04:59		06:11 (C8)	04:25		06:25 (C8)	
	16:14	24	09:54 (C12)	17:21	16	09:23 (C11)	18:22	42	08:15 (C10)	20:26		21:27	46	06:57 (C8)	22:08	26	06:51 (C8)	
18	08:37		09:31 (C12)	07:38		09:10 (C11)	06:26		07:33 (C10)	06:04		04:57		06:12 (C8)	04:25		06:25 (C8)	
	16:16	23	09:54 (C12)	17:23	9	09:19 (C11)	18:24	41	08:14 (C10)	20:28		21:29	46	06:58 (C8)	22:09	26	06:51 (C8)	
19	08:36		09:31 (C12)	07:35			06:23		07:33 (C10)	06:02		04:55		06:11 (C8)	04:25		06:25 (C8)	
	16:18	23	09:54 (C12)	17:25			18:26	41	08:14 (C10)	20:30		21:31	46	06:57 (C8)	22:09	26	06:51 (C8)	
20	08:35		09:31 (C12)	07:33			06:21		07:33 (C10)	05:59		04:53		06:12 (C8)	04:25		06:26 (C8)	
	16:20	23	09:54 (C12)	17:28			18:28	40	08:13 (C10)	20:32		21:33	45	06:57 (C8)	22:10	25	06:51 (C8)	
21	08:33		09:32 (C12)	07:31			06:18		07:33 (C10)	05:57		04:52		06:12 (C8)	04:25		06:26 (C8)	
	16:22	23	09:55 (C12)	17:30			18:30	39	08:12 (C10)	20:34		21:35	45	06:57 (C8)	22:10	25	06:51 (C8)	
22	08:32		09:33 (C12)	07:28			06:15		07:34 (C10)	05:54		04:50		06:12 (C8)	04:25		06:27 (C8)	
	16:24	21	09:54 (C12)	17:32			18:32	36	08:10 (C10)	20:37		21:36	45	06:57 (C8)	22:10	25	06:52 (C8)	
23	08:30		09:33 (C12)	07:26			06:13		07:35 (C10)	05:52		04:48		06:12 (C8)	04:26		06:27 (C8)	
	16:26	21	09:54 (C12)	17:34			18:34	34	08:09 (C10)	20:39		21:38	44	06:56 (C8)	22:10	25	06:52 (C8)	
24	08:29		09:34 (C12)	07:23			06:10		07:36 (C10)	05:49		04:47		06:13 (C8)	04:26		06:26 (C8)	
	16:28	20	09:54 (C12)	17:36			18:36	31	08:07 (C10)	20:41		21:40	43	06:56 (C8)	22:10	26	06:52 (C8)	
25	08:27		09:07 (C11)	07:21			06:07		07:36 (C10)	05:47		04:45		06:13 (C8)	04:26		06:27 (C8)	
	16:30	28	09:53 (C12)	17:39			18:38	29	08:05 (C10)	20:43		21:41	43	06:56 (C8)	22:10	26	06:53 (C8)	
26	08:25		09:06 (C11)	07:18			06:05		07:39 (C10)	05:44		04:44		06:13 (C8)	04:27		06:27 (C8)	
	16:32	31	09:53 (C12)	17:41			18:40	24	08:03 (C10)	20:45	2	06:37 (C8)	21:43	42	06:55 (C8)	22:10	26	06:53 (C8)
27	08:24		09:04 (C11)	07:16			06:02		07:40 (C10)	05:42		04:42		06:14 (C8)	04:27		06:27 (C8)	
	16:34	32	09:52 (C12)	17:43			18:42	20	08:00 (C10)	20:47	16	06:44 (C8)	21:45	41	06:55 (C8)	22:10	27	06:54 (C8)
28	08:22		09:03 (C11)	07:13			05:59		07:43 (C10)	05:39		04:41		06:14 (C8)	04:28		06:26 (C8)	
	16:36	30	09:50 (C12)	17:45			18:45	13	07:56 (C10)	20:49	21	06:47 (C8)	21:46	41	06:55 (C8)	22:10	28	06:54 (C8)
29	08:20		09:02 (C11)				06:57		05:37			06:22 (C8)	04:39		06:15 (C8)	04:28		06:27 (C8)
	16:38	24	09:26 (C11)				19:47		20:51	26	06:48 (C8)	21:48	40	06:55 (C8)	22:10	28	06:55 (C8)	
30	08:18		09:01 (C11)				06:54		05:35			06:21 (C8)	04:38		06:15 (C8)	04:29		06:27 (C8)
	16:41	25	09:26 (C11)				19:49		20:53	29	06:50 (C8)	21:49	40	06:55 (C8)	22:09	29	06:56 (C8)	
31	08:16		09:00 (C11)				06:51					04:37		06:16 (C8)				
	16:43	27	09:27 (C11)				19:51					21:51	39	06:55 (C8)				
Potential sun hours	235			266			366		426			508			529			
Total, worst case	696			489			897		94			1319			877			
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			0.62		0.66			0.66			0.66			
Total reduction	0.08			0.11			0.25		0.32			0.36			0.35			
Total, real	54			56			222		30			473			309			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July			August			September			October			November			December		
1	04:30		06:26 (C8)	05:16		06:22 (C8)	06:17		07:17		08:14 (C10)	07:22		08:29 (C11)	08:24		09:10 (C12)	
2	22:09	30	06:56 (C8)	21:28	45	07:07 (C8)	20:14		18:53	42	08:56 (C10)	16:36	31	09:00 (C11)	15:45	22	09:32 (C12)	
	04:31		06:26 (C8)	05:17		06:22 (C8)	06:19		07:19		08:14 (C10)	07:25		08:29 (C11)	08:26		09:11 (C12)	
3	22:08	30	06:56 (C8)	21:26	45	07:07 (C8)	20:11		18:51	41	08:55 (C10)	16:34	31	09:00 (C11)	15:44	22	09:33 (C12)	
	04:32		06:26 (C8)	05:19		06:23 (C8)	06:21		07:21		08:14 (C10)	07:27		08:28 (C11)	08:27		09:12 (C12)	
4	22:08	31	06:57 (C8)	21:24	44	07:07 (C8)	20:09		18:48	40	08:54 (C10)	16:31	32	09:00 (C11)	15:43	21	09:33 (C12)	
	04:32		06:26 (C8)	05:21		06:23 (C8)	06:23		07:23		08:15 (C10)	07:29		08:29 (C11)	08:29		09:13 (C12)	
5	22:07	32	06:58 (C8)	21:21	44	07:07 (C8)	20:06		18:45	38	08:53 (C10)	16:29	32	09:01 (C11)	15:42	20	09:33 (C12)	
	04:33		06:26 (C8)	05:23		06:23 (C8)	06:25		07:25		08:15 (C10)	07:31		08:28 (C11)	08:31		09:14 (C12)	
6	22:06	33	06:59 (C8)	21:19	43	07:06 (C8)	20:03		18:43	37	08:52 (C10)	16:27	32	09:00 (C11)	15:41	19	09:33 (C12)	
	04:35		06:26 (C8)	05:25		06:24 (C8)	06:27		07:27		08:16 (C10)	07:33		08:29 (C11)	08:32		09:15 (C12)	
7	22:06	33	06:59 (C8)	21:17	42	07:06 (C8)	20:01		18:40	34	08:50 (C10)	16:25	32	09:01 (C11)	15:41	19	09:34 (C12)	
	04:36		06:26 (C8)	05:27		06:24 (C8)	06:29		07:29		08:17 (C10)	07:35		08:29 (C11)	08:34		09:15 (C12)	
8	22:05	34	07:00 (C8)	21:15	41	07:05 (C8)	19:58		18:38	32	08:49 (C10)	16:23	31	09:00 (C11)	15:40	18	09:33 (C12)	
	04:37		06:25 (C8)	05:29		06:25 (C8)	06:31		07:31		08:18 (C10)	07:38		08:29 (C11)	08:35		09:16 (C12)	
9	22:04	35	07:00 (C8)	21:13	39	07:04 (C8)	19:55		18:35	29	08:47 (C10)	16:21	30	08:59 (C11)	15:40	17	09:33 (C12)	
	04:38		06:25 (C8)	05:31		06:26 (C8)	06:33		07:33		08:19 (C10)	07:40		08:30 (C11)	08:36		09:17 (C12)	
10	22:03	36	07:01 (C8)	21:11	38	07:04 (C8)	19:53		18:32	26	08:45 (C10)	16:19	30	09:00 (C11)	15:39	16	09:33 (C12)	
	04:39		06:25 (C8)	05:33		06:26 (C8)	06:35		07:36		08:22 (C10)	07:42		08:31 (C11)	08:38		09:19 (C12)	
11	22:02	36	07:01 (C8)	21:08	36	07:02 (C8)	19:50		18:30	21	08:43 (C10)	16:17	28	08:59 (C11)	15:39	14	09:33 (C12)	
	04:41		06:24 (C8)	05:35		06:27 (C8)	06:37		07:38		08:25 (C10)	07:44		08:32 (C11)	08:39		09:20 (C12)	
12	22:01	38	07:02 (C8)	21:06	34	07:01 (C8)	19:47		18:27	14	08:39 (C10)	16:15	27	08:59 (C11)	15:38	13	09:33 (C12)	
	04:42		06:24 (C8)	05:37		06:28 (C8)	06:39		07:40		08:32 (C11)	07:46		08:32 (C11)	08:40		09:21 (C12)	
13	22:00	38	07:02 (C8)	21:04	32	07:00 (C8)	19:45		18:24		16:13	26	08:58 (C11)	15:38	12	09:33 (C12)		
	04:43		06:24 (C8)	05:39		06:30 (C8)	06:41		07:42		07:48	08:34 (C11)	08:41		09:23 (C12)			
14	21:59	39	07:03 (C8)	21:01	28	06:58 (C8)	19:42		18:22		16:11	24	08:58 (C11)	15:38	10	09:33 (C12)		
	04:45		06:24 (C8)	05:41		06:31 (C8)	06:43		07:44		07:51	08:35 (C11)	08:42		09:24 (C12)			
15	21:58	40	07:04 (C8)	20:59	25	06:56 (C8)	19:39		18:19		16:09	30	09:22 (C12)	15:38	9	09:33 (C12)		
	04:46		06:23 (C8)	05:43		06:34 (C8)	06:45	08:35 (C10)	07:46		07:53	08:36 (C11)	08:43		09:25 (C12)			
16	21:56	41	07:04 (C8)	20:57	20	06:54 (C8)	19:37	10	08:45 (C10)	18:17	16:07	33	09:24 (C12)	15:38	8	09:33 (C12)		
	04:48		06:24 (C8)	05:45		06:37 (C8)	06:47		08:30 (C10)	07:48	07:55	08:39 (C11)	08:44		09:26 (C12)			
17	21:55	41	07:05 (C8)	20:54	14	06:51 (C8)	19:34	19	08:49 (C10)	18:14	16:06	31	09:26 (C12)	15:38	7	09:33 (C12)		
	04:49		06:23 (C8)	05:47			06:49		08:28 (C10)	07:50	07:57	08:41 (C11)	08:45		09:27 (C12)			
18	21:54	42	07:05 (C8)	20:52			19:31	23	08:51 (C10)	18:12	16:04	28	09:27 (C12)	15:38	6	09:33 (C12)		
	04:51		06:23 (C8)	05:49			06:51		08:24 (C10)	07:52	07:59	09:08 (C12)	08:46		09:28 (C12)			
19	21:52	43	07:06 (C8)	20:49			19:28	28	08:52 (C10)	18:09	16:02	19	09:27 (C12)	15:38	6	09:34 (C12)		
	04:52		06:23 (C8)	05:51			06:53		08:22 (C10)	07:54	08:01	09:08 (C12)	08:47		09:28 (C12)			
20	21:51	43	07:06 (C8)	20:47			19:26	32	08:54 (C10)	18:07	16:01	21	09:29 (C12)	15:38	5	09:33 (C12)		
	04:54		06:23 (C8)	05:53			06:55		08:21 (C10)	07:56	08:03	09:08 (C12)	08:48		09:29 (C12)			
21	21:49	44	07:07 (C8)	20:44			19:23	34	08:55 (C10)	18:04	15:59	21	09:29 (C12)	15:38	5	09:34 (C12)		
	04:56		06:22 (C8)	05:55			06:57		08:20 (C10)	07:59	08:05	09:07 (C12)	08:48		09:29 (C12)			
22	21:48	45	07:07 (C8)	20:42			19:20	35	08:55 (C10)	18:02	15:57	23	09:30 (C12)	15:39	4	09:33 (C12)		
	04:57		06:23 (C8)	05:57			06:59		08:18 (C10)	08:01	08:07	09:07 (C12)	08:49		09:30 (C12)			
23	21:46	44	07:07 (C8)	20:39			19:18	38	08:56 (C10)	17:59	15:56	23	09:30 (C12)	15:39	4	09:34 (C12)		
	04:59		06:22 (C8)	05:59			07:01		08:17 (C10)	08:03	08:09	09:08 (C12)	08:49		09:30 (C12)			
24	21:44	45	07:07 (C8)	20:37			19:15	39	08:56 (C10)	17:57	15:55	23	09:31 (C12)	15:40	5	09:35 (C12)		
	05:01		06:22 (C8)	06:01			07:03		08:16 (C10)	08:05	08:11	09:08 (C12)	08:50		09:31 (C12)			
25	21:43	46	07:08 (C8)	20:34			19:12	41	08:57 (C10)	17:54	10	09:50 (C11)	15:53	23	09:31 (C12)	15:40	5	09:36 (C12)
	05:03		06:22 (C8)	06:03			07:05		08:16 (C10)	07:07	08:13	09:08 (C12)	08:50		09:31 (C12)			
26	21:41	45	07:07 (C8)	20:32			19:10	41	08:57 (C10)	16:52	17	08:53 (C11)	15:52	24	09:32 (C12)	15:41	5	09:36 (C12)
	05:04		06:22 (C8)	06:05			07:07		08:15 (C10)	07:09	08:15	09:08 (C12)	08:50		09:31 (C12)			
27	21:39	46	07:08 (C8)	20:29			19:07	42	08:57 (C10)	16:50	20	08:55 (C11)	15:51	24	09:32 (C12)	15:42	6	09:37 (C12)
	05:06		06:22 (C8)	06:07			07:09		08:14 (C10)	07:12		08:33 (C11)	08:17		09:08 (C12)	08:51		09:31 (C12)
28	21:37	46	07:08 (C8)	20:27			19:04	43	08:57 (C10)	16:47	23	08:56 (C11)	15:49	24	09:32 (C12)	15:43	7	09:38 (C12)
	05:08		06:21 (C8)	06:09			07:11		08:14 (C10)	07:14		08:31 (C11)	08:19		09:08 (C12)	08:51		09:31 (C12)
29	21:35	47	07:08 (C8)	20:24			19:01	42	08:56 (C10)	16:45	26	08:57 (C11)	15:48	24	09:32 (C12)	15:44	8	09:39 (C12)
	05:10		06:22 (C8)	06:11			07:13		08:14 (C10)	07:16		08:31 (C11)	08:20		09:10 (C12)	08:51		09:31 (C12)
30	21:34	46	07:08 (C8)	20:22			18:59	42	08:56 (C10)	16:43	28	08:59 (C11)	15:47	23	09:33 (C12)	15:44	9	09:40 (C12)
	05:12		06:22 (C8)	06:13			07:15		08:14 (C10)	07:18		08:30 (C11)	08:22		09:10 (C12)	08:51		09:31 (C12)
31	21:32	46	07:08 (C8)	20:19			18:56	42	08:56 (C10)	16:40	29	08:59 (C11)	15:46	23	09:33 (C12)	15:45	10	09:41 (C12)
	05:14		06:22 (C8)	06:15					07:20			08:29 (C11)			08:51		09:30 (C12)	
Potential sun hours		529	469		385	551	324	803	247	216	343							
Total, worst case		1240	570	551	803	247	216	343										
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	0.62	0.61	0.60	0.60											
Total reduction		0.31	0.31	0.26	0.15	0.05	0.04											
Total, real		385	179	141	82	38	14											

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 22:04	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

January			February			March			April			May			June		
1	08:51		09:50 (C14)	08:15		08:50 (C15)	07:11		06:49			05:33			04:36		
	15:48	16	10:06 (C14)	16:45	63	10:28 (C14)	17:48		19:53			20:55			21:53		
2	08:50		09:50 (C14)	08:13		08:50 (C15)	07:08		06:46			05:30			04:35		
	15:49	18	10:08 (C14)	16:48	63	10:28 (C14)	17:50		19:55			20:57			21:54		
3	08:50		09:49 (C14)	08:11		08:50 (C15)	07:06		06:43		07:21 (C13)	05:28			04:34		
	15:51	20	10:09 (C14)	16:50	62	10:28 (C14)	17:52		19:57	10	07:31 (C13)	21:00			21:55		
4	08:50		09:49 (C14)	08:09		08:50 (C15)	07:03		06:41		07:17 (C13)	05:26			04:33		
	15:52	21	10:10 (C14)	16:52	63	10:28 (C14)	17:54		19:59	17	07:34 (C13)	21:02			21:57		
5	08:49		09:49 (C14)	08:07		08:50 (C15)	07:01		06:38		07:13 (C13)	05:23			04:32		
	15:53	23	10:12 (C14)	16:54	60	10:27 (C14)	17:56		20:01	23	07:36 (C13)	21:04			21:58		
6	08:49		09:49 (C14)	08:05		08:50 (C15)	06:58		06:35		07:12 (C13)	05:21			04:31		
	15:55	24	10:13 (C14)	16:56	58	10:26 (C14)	17:58		20:03	26	07:38 (C13)	21:06			21:59		
7	08:48		09:48 (C14)	08:03		08:50 (C15)	06:55		06:33		07:10 (C13)	05:19			04:30		
	15:56	26	10:14 (C14)	16:59	57	10:25 (C14)	18:01		20:05	29	07:39 (C13)	21:08			22:00		
8	08:48		09:48 (C14)	08:01		08:51 (C15)	06:53		06:30		07:09 (C13)	05:17			04:29		
	15:58	27	10:15 (C14)	17:01	53	10:24 (C14)	18:03		20:08	32	07:41 (C13)	21:10			22:01		
9	08:47		09:48 (C14)	07:58		08:51 (C15)	06:50		06:28		07:07 (C13)	05:15			04:29		
	16:00	28	10:16 (C14)	17:03	48	10:22 (C14)	18:05		20:10	34	07:41 (C13)	21:12			22:02		
10	08:46		09:47 (C14)	07:56		08:52 (C15)	06:47		06:25		07:06 (C13)	05:13			04:28		
	16:01	30	10:17 (C14)	17:05	43	10:20 (C14)	18:07		20:12	35	07:41 (C13)	21:14			22:03		
11	08:45		09:47 (C14)	07:54		08:54 (C15)	06:45		06:22		07:05 (C13)	05:11			04:27		
	16:03	31	10:18 (C14)	17:08	35	10:18 (C14)	18:09		20:14	37	07:42 (C13)	21:16			22:04		
12	08:44		09:46 (C14)	07:52		08:55 (C15)	06:42		06:20		07:04 (C13)	05:09			04:27		
	16:05	33	10:19 (C14)	17:10	24	10:13 (C14)	18:11		20:16	37	07:41 (C13)	21:18			22:05		
13	08:43		09:46 (C14)	07:50		08:57 (C15)	06:40		06:17		07:04 (C13)	05:07			04:26		
	16:06	34	10:20 (C14)	17:12	11	09:08 (C15)	18:13		20:18	38	07:42 (C13)	21:20			22:06		
14	08:42		09:47 (C14)	07:47			06:37		06:15		07:03 (C13)	05:05			04:26		
	16:08	34	10:21 (C14)	17:14			18:15		20:20	38	07:41 (C13)	21:22			22:07		
15	08:41		09:46 (C14)	07:45			06:34		06:12		07:03 (C13)	05:03			04:26		
	16:10	35	10:21 (C14)	17:17			18:18		20:22	39	07:42 (C13)	21:24			22:07		
16	08:40		09:46 (C14)	07:43			06:32		06:09		07:02 (C13)	05:01			04:26		
	16:12	37	10:23 (C14)	17:19			18:20		20:24	39	07:41 (C13)	21:25			22:08		
17	08:39		09:46 (C14)	07:40			06:29		06:07		07:03 (C13)	04:59			04:25		
	16:14	37	10:23 (C14)	17:21			18:22		20:26	38	07:41 (C13)	21:27			22:08		
18	08:37		09:46 (C14)	07:38			06:26		06:04		07:02 (C13)	04:57			04:25		
	16:16	38	10:24 (C14)	17:23			18:24		20:28	38	07:40 (C13)	21:29			22:09		
19	08:36		09:46 (C14)	07:36			06:24		06:02		07:03 (C13)	04:55			04:25		
	16:18	38	10:24 (C14)	17:26			18:26		20:30	37	07:40 (C13)	21:31			22:09		
20	08:35		09:46 (C14)	07:33			06:21		05:59		07:02 (C13)	04:53			04:25		
	16:20	40	10:26 (C14)	17:28			18:28		20:33	36	07:38 (C13)	21:33			22:10		
21	08:33		09:46 (C14)	07:31			06:18		05:57		07:03 (C13)	04:52			04:25		
	16:22	40	10:26 (C14)	17:30			18:30		20:35	35	07:38 (C13)	21:35			22:10		
22	08:32		09:46 (C14)	07:28			06:16		05:54		07:04 (C13)	04:50			04:26		
	16:24	40	10:26 (C14)	17:32			18:32		20:37	33	07:37 (C13)	21:37			22:10		
23	08:30		09:46 (C14)	07:26			06:13		05:52		07:04 (C13)	04:48			04:26		
	16:26	41	10:27 (C14)	17:34			18:34		20:39	32	07:36 (C13)	21:38			22:10		
24	08:29		09:47 (C14)	07:23			06:10		05:49		07:05 (C13)	04:47			04:26		
	16:28	41	10:28 (C14)	17:37			18:36		20:41	30	07:35 (C13)	21:40			22:10		
25	08:27		09:00 (C15)	07:21			06:08		05:47		07:06 (C13)	04:45			04:26		
	16:30	43	10:28 (C14)	17:39			18:38		20:43	28	07:34 (C13)	21:42			22:10		
26	08:26		08:58 (C15)	07:18			06:05		05:44		07:07 (C13)	04:44			04:27		
	16:32	50	10:29 (C14)	17:41			18:41		20:45	24	07:31 (C13)	21:43			22:10		
27	08:24		08:56 (C15)	07:16			06:02		05:42		07:08 (C13)	04:42			04:27		
	16:34	54	10:29 (C14)	17:43			18:43		20:47	21	07:29 (C13)	21:45			22:10		
28	08:22		08:54 (C15)	07:13			05:59		05:40		07:11 (C13)	04:41			04:28		
	16:37	58	10:29 (C14)	17:45			18:45		20:49	16	07:27 (C13)	21:47			22:10		
29	08:20		08:52 (C15)				06:57		05:37		07:14 (C13)	04:40			04:29		
	16:39	61	10:29 (C14)				19:47		20:51	10	07:24 (C13)	21:48			22:10		
30	08:18		08:51 (C15)				06:54		05:35			04:38			04:29		
	16:41	62	10:29 (C14)				19:49		20:53			21:50			22:09		
31	08:17		08:51 (C15)				06:51					04:37					
	16:43	63	10:29 (C14)				19:51					21:51					
Potential sun hours	235			266			366		426			508			529		
Total, worst case	1143			640					812								
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	88			74					255								

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:04 (C13) 18:54	07:17 16:36		07:23 16:36	08:22 (C15) 09:50 (C14)	08:24 15:45		09:29 (C14) 10:00 (C14)	
2	04:31 22:08	05:18 21:26			06:19 20:11	07:05 (C13) 18:51	07:19 16:34		07:25 16:34	08:21 (C15) 09:52 (C14)	08:26 15:44	30	09:30 (C14) 10:00 (C14)	
3	04:32 22:08	05:20 21:24			06:21 20:09	07:05 (C13) 18:48	07:21 16:32		07:27 16:32	08:21 (C15) 09:54 (C14)	08:28 15:43	28	09:31 (C14) 09:59 (C14)	
4	04:33 22:07	05:21 21:22			06:23 20:06	07:06 (C13) 18:46	07:23 16:29		07:29 16:29	08:20 (C15) 09:55 (C14)	08:29 15:42	27	09:32 (C14) 09:59 (C14)	
5	04:34 22:07	05:23 21:20			06:25 20:03	07:07 (C13) 18:43	07:25 16:27		07:31 16:27	08:19 (C15) 09:55 (C14)	08:31 15:42	26	09:33 (C14) 09:59 (C14)	
6	04:35 22:06	05:25 21:17			06:27 20:01	07:07 (C13) 18:40	07:27 16:25		07:33 16:25	08:20 (C15) 09:57 (C14)	08:32 15:41	24	09:35 (C14) 09:59 (C14)	
7	04:36 22:05	05:27 21:15			06:29 19:58	07:08 (C13) 18:38	07:30 16:23		07:36 16:23	08:20 (C15) 09:57 (C14)	08:34 15:40	23	09:35 (C14) 09:58 (C14)	
8	04:37 22:04	05:29 21:13			06:31 19:55	07:11 (C13) 18:35	07:32 16:21		07:38 16:21	08:21 (C15) 09:59 (C14)	08:35 15:40	21	09:37 (C14) 09:58 (C14)	
9	04:38 22:03	05:31 21:11			06:33 19:53	07:14 (C13) 18:32	07:34 16:19		07:40 16:19	08:21 (C15) 09:59 (C14)	08:37 15:39	20	09:37 (C14) 09:57 (C14)	
10	04:39 22:02	05:33 21:08			06:35 19:50	07:15 (C13) 18:30	07:36 16:17		07:42 16:17	08:21 (C15) 09:59 (C14)	08:38 15:39	18	09:39 (C14) 09:57 (C14)	
11	04:41 22:01	05:35 21:06			06:37 19:47	07:18 (C13) 18:27	07:38 16:15		07:44 16:15	08:22 (C15) 10:00 (C14)	08:39 15:39	17	09:40 (C14) 09:57 (C14)	
12	04:42 22:00	05:37 21:04			06:39 19:45	07:40 18:25	07:46 16:13		07:46 16:13	08:22 (C15) 10:00 (C14)	08:40 15:38	15	09:42 (C14) 09:57 (C14)	
13	04:43 21:59	05:39 21:02			06:41 19:42	07:42 18:22	07:49 16:11		07:49 16:11	08:24 (C15) 10:01 (C14)	08:42 15:38	13	09:43 (C14) 09:56 (C14)	
14	04:45 21:58	05:41 20:59	11	07:21 (C13)	06:43 19:39	07:44 18:20	07:51 16:09		07:51 16:09	08:26 (C15) 10:01 (C14)	08:43 15:38	12	09:44 (C14) 09:56 (C14)	
15	04:46 21:57	05:43 20:57	17	07:18 (C13)	06:45 19:37	07:46 18:17	07:53 16:08		07:53 16:08	08:28 (C15) 10:01 (C14)	08:44 15:38	9	09:46 (C14) 09:55 (C14)	
16	04:48 21:55	05:45 20:54	22	07:15 (C13)	06:47 19:34	07:48 18:14	07:55 16:06		07:55 16:06	08:31 (C15) 10:01 (C14)	08:45 15:38	8	09:47 (C14) 09:55 (C14)	
17	04:49 21:54	05:47 20:52	25	07:14 (C13)	06:49 19:31	07:50 18:12	07:57 16:04		07:57 16:04	08:33 (C15) 10:01 (C14)	08:46 15:38	5	09:49 (C14) 09:54 (C14)	
18	04:51 21:52	05:49 20:50	28	07:39 (C13)	06:51 19:29	07:52 18:09	07:59 16:02		07:59 16:02	09:21 (C14) 10:02 (C14)	08:46 15:38			
19	04:53 21:51	05:51 20:47	31	07:10 (C13)	06:53 19:26	07:55 18:07	08:01 16:01		08:01 16:01	09:21 (C14) 10:02 (C14)	08:47 15:38			
20	04:54 21:49	05:53 20:45	32	07:41 (C13)	06:55 19:23	07:57 18:04	08:03 15:59		08:03 15:59	09:21 (C14) 10:01 (C14)	08:48 15:39			
21	04:56 21:48	05:55 20:42	34	07:08 (C13)	06:57 19:21	07:59 18:02	08:05 15:58		08:05 15:58	09:21 (C14) 10:01 (C14)	08:48 15:39			
22	04:58 21:46	05:57 20:40	36	07:42 (C13)	06:59 19:18	08:01 18:00	08:07 15:56		08:07 15:56	09:22 (C14) 10:02 (C14)	08:49 15:40			
23	04:59 21:45	05:59 20:37	36	07:07 (C13)	07:01 19:15	08:03 17:57	08:09 15:55		08:09 15:55	09:23 (C14) 10:02 (C14)	08:50 15:40			
24	05:01 21:43	06:01 20:35	38	07:43 (C13)	07:03 19:12	08:05 17:55	08:11 15:53		08:11 15:53	09:23 (C14) 10:01 (C14)	08:50 15:41			
25	05:03 21:41	06:03 20:32	38	07:06 (C13)	07:05 19:10	08:13 17:52	08:13 15:52		08:13 15:52	09:24 (C14) 10:01 (C14)	08:50 15:41			
26	05:05 21:39	06:05 20:30	39	07:44 (C13)	07:07 19:07	08:15 17:50	08:15 15:51		08:15 15:51	09:24 (C14) 10:01 (C14)	08:51 15:42	4	09:53 (C14) 09:57 (C14)	
27	05:06 21:38	06:07 20:27	39	07:04 (C13)	07:09 19:04	08:17 17:48	08:17 15:49		08:17 15:49	09:26 (C14) 10:01 (C14)	08:51 15:43	7	09:52 (C14) 09:59 (C14)	
28	05:08 21:36	06:09 20:24	39	07:43 (C13)	07:11 19:02	08:19 17:46	08:19 15:48		08:19 15:48	09:27 (C14) 10:01 (C14)	08:51 15:44	8	09:52 (C14) 10:00 (C14)	
29	05:10 21:34	06:11 20:22	38	07:04 (C13)	07:13 18:59	08:21 17:43	08:21 15:47		08:21 15:47	09:27 (C14) 10:01 (C14)	08:51 15:45	10	09:52 (C14) 10:02 (C14)	
30	05:12 21:32	06:13 20:19	38	07:42 (C13)	07:15 18:56	08:24 17:41	08:22 15:46		08:22 15:46	09:28 (C14) 10:01 (C14)	08:51 15:46	13	09:51 (C14) 10:04 (C14)	
31	05:14 21:30	06:15 20:17	37	07:04 (C13)		08:22 (C15) 17:40	08:22 (C15) 15:47		08:22 (C15) 15:47		08:51 15:47	14	09:51 (C14) 10:05 (C14)	
Potential sun hours	529	469			385		324		247		216			
Total, worst case		578			246		80		1451		383			
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		181			66		12		69		16			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January	February	March		April		May		June		
1	08:51	08:15	07:11		07:38 (C14)	06:49		05:33	06:14 (C13)	04:36	
	15:48	16:45	17:48	10	07:48 (C14)	19:53		20:55	21	06:35 (C13)	21:53
2	08:50	08:13	07:08		07:35 (C14)	06:46		05:30		06:15 (C13)	04:35
	15:50	16:48	17:50	16	07:51 (C14)	19:55		20:58	19	06:34 (C13)	21:54
3	08:50	08:11	07:06		07:33 (C14)	06:43		05:28		06:16 (C13)	04:34
	15:51	16:50	17:52	21	07:54 (C14)	19:57		21:00	17	06:33 (C13)	21:55
4	08:50	08:09	07:03		07:31 (C14)	06:41		05:26		06:18 (C13)	04:33
	15:52	16:52	17:54	24	07:55 (C14)	19:59		21:02	14	06:32 (C13)	21:57
5	08:49	08:07	07:01		07:29 (C14)	06:38		05:24		06:19 (C13)	04:32
	15:54	16:54	17:56	26	07:55 (C14)	20:01		21:04	11	06:30 (C13)	21:58
6	08:49	08:05	06:58		07:29 (C14)	06:36		05:21			04:31
	15:55	16:56	17:58	28	07:57 (C14)	20:03		21:06			21:59
7	08:48	08:03	06:55		07:27 (C14)	06:33		05:19			04:30
	15:56	16:59	18:01	30	07:57 (C14)	20:06		21:08			22:00
8	08:48	08:01	06:53		07:26 (C14)	06:30		05:17			04:29
	15:58	17:01	18:03	31	07:57 (C14)	20:08		21:10			22:01
9	08:47	07:58	06:50		07:26 (C14)	06:28		05:15			04:29
	16:00	17:03	18:05	32	07:58 (C14)	20:10		21:12			22:02
10	08:46	07:56	06:48		07:26 (C14)	06:25		05:13			04:28
	16:01	17:05	18:07	31	07:57 (C14)	20:12		21:14			22:03
11	08:45	07:54	06:45		07:25 (C14)	06:22		05:11			04:27
	16:03	17:08	18:09	32	07:57 (C14)	20:14		21:16			22:04
12	08:44	07:52	06:42		07:25 (C14)	06:20		05:09			04:27
	16:05	17:10	18:11	32	07:57 (C14)	20:16		21:18			22:05
13	08:43	07:50	06:40		07:25 (C14)	06:17		05:07			04:27
	16:06	17:12	18:13	31	07:56 (C14)	20:18		21:20			22:06
14	08:42	07:47	06:37		07:25 (C14)	06:15		05:05			04:26
	16:08	17:14	18:15	30	07:55 (C14)	20:20		21:22			22:07
15	08:41	07:45	06:34		07:26 (C14)	06:12		05:03			04:26
	16:10	17:17	18:18	29	07:55 (C14)	20:22		21:24			22:07
16	08:40	07:43	06:32		07:26 (C14)	06:09		05:01			04:26
	16:12	17:19	18:20	27	07:53 (C14)	20:24		21:25			22:08
17	08:39	07:40	06:29		07:27 (C14)	06:07		04:59			04:25
	16:14	17:21	18:22	25	07:52 (C14)	20:26		21:27			22:08
18	08:38	07:38	06:26		07:28 (C14)	06:04		04:57			04:25
	16:16	17:23	18:24	22	07:50 (C14)	20:28		21:29			22:09
19	08:36	07:36	06:24		07:30 (C14)	06:02	06:28 (C13)	04:55			04:25
	16:18	17:26	18:26	18	07:48 (C14)	20:31	5 06:33 (C13)	21:31			22:09
20	08:35	07:33	06:21		07:32 (C14)	05:59	06:26 (C13)	04:53			04:25
	16:20	17:28	18:28	13	07:45 (C14)	20:33	9 06:35 (C13)	21:33			22:10
21	08:33	07:31	06:18			05:57	06:23 (C13)	04:52			04:25
	16:22	17:30	18:30			20:35	13 06:36 (C13)	21:35			22:10
22	08:32	07:28	06:16			05:54	06:21 (C13)	04:50			04:26
	16:24	17:32	18:32			20:37	16 06:37 (C13)	21:37			22:10
23	08:30	07:26	06:13			05:52	06:18 (C13)	04:48			04:26
	16:26	17:34	18:34			20:39	19 06:37 (C13)	21:38			22:10
24	08:29	07:23	06:10			05:49	06:16 (C13)	04:47			04:26
	16:28	17:37	18:36			20:41	21 06:37 (C13)	21:40			22:10
25	08:27	07:21	06:08			05:47	06:15 (C13)	04:45			04:27
	16:30	17:39	18:39			20:43	23 06:38 (C13)	21:42			22:10
26	08:26	07:18	06:05			05:44	06:14 (C13)	04:44			04:27
	16:32	17:41	18:41			20:45	23 06:37 (C13)	21:43			22:10
27	08:24	07:16	06:02			05:42	06:14 (C13)	04:42			04:27
	16:34	17:43	18:43			20:47	23 06:37 (C13)	21:45			22:10
28	08:22	07:13	06:00			05:40	06:14 (C13)	04:41			04:28
	16:37	17:45	18:45			20:49	23 06:37 (C13)	21:47			22:10
29	08:20		06:57			05:37	06:14 (C13)	04:40			04:29
	16:39		19:47			20:51	23 06:37 (C13)	21:48			22:10
30	08:19		06:54			05:35	06:15 (C13)	04:38			04:29
	16:41		19:49			20:53	22 06:37 (C13)	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				508		220		82			
Sun reduction				0.41		0.50		0.57			
Oper. time red.				0.98		0.98		0.98			
Wind dir. red.				0.62		0.65		0.65			
Total reduction				0.25		0.32		0.36			
Total, real				127		70		30			

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

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	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:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:05 (C14)	07:23
	22:09	21:28	20:14	18:54	31 08:36 (C14)	16:36
2	04:31	05:18	06:19	07:19	08:04 (C14)	07:25
	22:09	21:26	20:11	18:51	32 08:36 (C14)	16:34
3	04:32	05:20	06:21	07:21	08:04 (C14)	07:27
	22:08	21:24	20:09	18:48	31 08:35 (C14)	16:32
4	04:33	05:22	06:23	07:23	08:03 (C14)	07:29
	22:07	21:22	20:06	18:46	32 08:35 (C14)	16:30
5	04:34	05:23	06:25	07:25	08:03 (C14)	07:31
	22:07	21:20	20:03	18:43	31 08:34 (C14)	16:27
6	04:35	05:25	06:27	07:28	08:03 (C14)	07:33
	22:06	21:17	20:01	18:40	30 08:33 (C14)	16:25
7	04:36	05:27	06:31 (C13)	07:30	08:03 (C14)	07:36
	22:05	21:15	6 06:37 (C13)	18:38	29 08:32 (C14)	16:23
8	04:37	05:29	06:28 (C13)	07:32	08:04 (C14)	07:38
	22:04	21:13	12 06:40 (C13)	18:35	27 08:31 (C14)	16:21
9	04:38	05:31	06:27 (C13)	07:34	08:05 (C14)	07:40
	22:03	21:11	15 06:42 (C13)	18:33	26 08:31 (C14)	16:19
10	04:40	05:33	06:25 (C13)	07:36	08:06 (C14)	07:42
	22:02	21:08	18 06:43 (C13)	18:30	23 08:29 (C14)	16:17
11	04:41	05:35	06:24 (C13)	07:38	08:08 (C14)	07:44
	22:01	21:06	20 06:44 (C13)	18:27	19 08:27 (C14)	16:15
12	04:42	05:37	06:23 (C13)	07:40	08:10 (C14)	07:46
	22:00	21:04	21 06:44 (C13)	18:25	14 08:24 (C14)	16:13
13	04:44	05:39	06:22 (C13)	07:42	08:14 (C14)	07:49
	21:59	21:02	22 06:44 (C13)	18:22	5 08:19 (C14)	16:11
14	04:45	05:41	06:22 (C13)	07:44		07:51
	21:58	20:59	22 06:44 (C13)	18:20		16:10
15	04:46	05:43	06:21 (C13)	07:46		07:53
	21:57	20:57	24 06:45 (C13)	18:17		16:08
16	04:48	05:45	06:21 (C13)	07:48		07:55
	21:55	20:54	24 06:45 (C13)	18:15		16:06
17	04:49	05:47	06:21 (C13)	07:50		07:57
	21:54	20:52	24 06:45 (C13)	18:12		16:04
18	04:51	05:49	06:21 (C13)	07:52		07:59
	21:52	20:50	23 06:44 (C13)	18:09		16:03
19	04:53	05:51	06:22 (C13)	07:55		08:01
	21:51	20:47	21 06:43 (C13)	18:07		16:01
20	04:54	05:53	06:24 (C13)	07:57		08:03
	21:49	20:45	18 06:42 (C13)	18:04		15:59
21	04:56	05:55	06:26 (C13)	07:59		08:05
	21:48	20:42	15 06:41 (C13)	18:02		15:58
22	04:58	05:57	06:28 (C13)	08:01		08:07
	21:46	20:40	12 06:40 (C13)	18:00		15:56
23	04:59	05:59	06:30 (C13)	08:03		08:09
	21:45	20:37	9 06:39 (C13)	17:57		15:55
24	05:01	06:01	06:32 (C13)	08:05		08:11
	21:43	20:35	4 06:36 (C13)	17:55		15:53
25	05:03	06:03		08:12 (C14)		08:13
	21:41	20:32		17:52		15:52
26	05:05	06:05		08:10 (C14)		08:15
	21:39	20:30		16:50		15:51
27	05:06	06:07		08:09 (C14)		08:17
	21:38	20:27		16:48		15:50
28	05:08	06:09		08:07 (C14)		08:19
	21:36	20:24		16:45		15:48
29	05:10	06:11		08:06 (C14)		08:21
	21:34	20:22		16:43		15:47
30	05:12	06:13		08:05 (C14)		08:22
	21:32	20:19		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		310	188	330		
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		98	49	52		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:35 (C14)	06:46	05:30
	15:50	16:48	17:50	25 08:00 (C14)	19:55	20:58
3	08:50	08:11	07:06	07:35 (C14)	06:44	05:28
	15:51	16:50	17:52	26 08:01 (C14)	19:57	21:00
4	08:50	08:09	07:03	07:34 (C14)	06:41	05:26
	15:52	16:52	17:54	27 08:01 (C14)	19:59	21:02
5	08:49	08:07	07:01	07:33 (C14)	06:38	05:24
	15:54	16:54	17:56	28 08:01 (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	28 08:01 (C14)	20:03	21:06
7	08:48	08:03	06:55	07:33 (C14)	06:33	05:19
	15:56	16:59	18:01	27 08:00 (C14)	20:06	21:08
8	08:48	08:01	06:53	07:33 (C14)	06:30	05:17
	15:58	17:01	18:03	27 08:00 (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	26 07:59 (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	24 07:58 (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	23 07:57 (C14)	20:14	21:16
12	08:44	07:52	06:42	07:36 (C14)	06:20	06:45 (C13)
	16:05	17:10	18:11	20 07:56 (C14)	20:16	06:50 (C13)
13	08:43	07:50	06:40	07:37 (C14)	06:17	06:43 (C13)
	16:06	17:12	18:13	16 07:53 (C14)	20:18	06:52 (C13)
14	08:42	07:47	06:37	07:39 (C14)	06:15	06:40 (C13)
	16:08	17:14	18:15	11 07:50 (C14)	20:20	06:52 (C13)
15	08:41	07:45	06:34	06:12	12 06:38 (C13)	05:03
	16:10	17:17	18:18	15 06:53 (C13)	21:24	05:01
16	08:40	07:43	06:32	06:09	18 06:35 (C13)	05:01
	16:12	17:19	18:20	20 06:53 (C13)	21:26	05:01
17	08:39	07:40	06:29	06:07	20 06:33 (C13)	04:59
	16:14	17:21	18:22	22 06:53 (C13)	21:27	04:57
18	08:38	07:38	06:26	06:04	22 06:31 (C13)	04:57
	16:16	17:23	18:24	22 06:53 (C13)	21:29	04:55
19	08:36	07:36	06:24	06:02	21 06:32 (C13)	04:55
	16:18	17:26	18:26	21 06:53 (C13)	21:31	04:53
20	08:35	07:33	06:21	05:59	21 06:32 (C13)	04:53
	16:20	17:28	18:28	21 06:53 (C13)	21:33	04:51
21	08:33	07:31	06:18	05:57	19 06:32 (C13)	04:52
	16:22	17:30	18:30	19 06:51 (C13)	21:35	04:51
22	08:32	07:28	06:16	05:54	19 06:32 (C13)	04:50
	16:24	17:32	18:32	19 06:51 (C13)	21:37	04:48
23	08:30	07:26	06:13	05:52	16 06:33 (C13)	04:48
	16:26	17:34	18:34	16 06:49 (C13)	21:38	04:47
24	08:29	07:23	06:10	05:49	14 06:34 (C13)	04:47
	16:28	17:37	18:36	14 06:48 (C13)	21:40	04:45
25	08:27	07:21	06:08	05:47	10 06:36 (C13)	04:45
	16:30	17:39	18:39	10 06:46 (C13)	21:42	04:43
26	08:26	07:18	06:05	05:44		04:44
	16:32	17:41	18:41	20:45		21:43
27	08:24	07:16	06:02	05:42		04:42
	16:34	17:43	18:43	20:47		21:45
28	08:22	07:13	06:00	05:40		04:41
	16:37	17:45	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		47	330	221		
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	83	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:15 (C14)	07:23
	22:09	21:28	20:14	18:54	19	16:36
2	04:31	05:18	06:19	07:19	08:14 (C14)	07:25
	22:09	21:26	20:11	18:51	21	16:34
3	04:32	05:20	06:21	07:21	08:12 (C14)	07:27
	22:08	21:24	20:09	18:48	24	16:32
4	04:33	05:22	06:23	07:23	08:11 (C14)	07:29
	22:07	21:22	20:06	18:46	25	16:30
5	04:34	05:24	06:25	07:25	08:10 (C14)	07:31
	22:07	21:20	20:04	18:43	26	16:27
6	04:35	05:25	06:27	07:28	08:09 (C14)	07:33
	22:06	21:17	20:01	18:40	27	16:25
7	04:36	05:27	06:29	07:30	08:09 (C14)	07:36
	22:05	21:15	19:58	18:38	27	16:23
8	04:37	05:29	06:31	07:32	08:08 (C14)	07:38
	22:04	21:13	19:56	18:35	28	16:21
9	04:38	05:31	06:33	07:34	08:09 (C14)	07:40
	22:03	21:11	19:53	18:33	27	16:19
10	04:40	05:33	06:35	07:36	08:09 (C14)	07:42
	22:02	21:08	19:50	18:30	27	16:17
11	04:41	05:35	06:37	07:38	08:09 (C14)	07:44
	22:01	21:06	19:48	18:27	26	16:15
12	04:42	05:37	06:39	07:40	08:09 (C14)	07:46
	22:00	21:04	19:45	18:25	24	16:13
13	04:44	05:39	06:41	07:42	08:11 (C14)	07:49
	21:59	21:02	19:42	18:22	21	16:11
14	04:45	05:41	06:43	07:44	08:13 (C14)	07:51
	21:58	20:59	19:39	18:20	17	16:10
15	04:46	05:43	06:45	07:46	08:16 (C14)	07:53
	21:57	20:57	19:37	18:17	13	16:08
16	04:48	05:45	06:47	07:48	08:18 (C14)	07:55
	21:55	20:54	19:34	18:15	8	16:06
17	04:49	05:47	06:49 (C13)	07:50	08:26 (C14)	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		08:11
	21:43	20:35	19:12	17:55		15:53
25	05:03	06:03	07:05	07:07		08:13
	21:41	20:32	19:10	16:52		15:52
26	05:05	06:05	07:07	07:10		08:15
	21:39	20:30	19:07	16:50		15:51
27	05:06	06:07	07:09	07:12		08:17
	21:38	20:27	19:04	16:48		15:50
28	05:08	06:09	07:11	07:14		08:19
	21:36	20:24	19:02	16:45		15:48
29	05:10	06:11	07:13	07:16	08:22 (C14)	08:21
	21:34	20:22	18:59	16:43	08:29 (C14)	15:47
30	05:12	06:13	07:15	07:18	08:18 (C14)	08:22
	21:32	20:19	18:56	16:41	08:32 (C14)	15:46
31	05:14	06:15	07:17	07:20		08:51
	21:30	20:17	18:53	16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		229	21		360	
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		73	5		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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	24	07:57 (C14) 08:21 (C14)	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	25	07:56 (C14) 08:21 (C14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	5	07:32 (C14) 07:37 (C14)	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	25	07:56 (C14) 08:21 (C14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	10	07:29 (C14) 07:39 (C14)	06:41 19:59	05:26 21:02	04:33 21:57	05:22 22:07	06:23 21:22	06:25 20:06	07:23 18:46	24	07:56 (C14) 08:20 (C14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	14	07:26 (C14) 07:40 (C14)	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	24	07:56 (C14) 08:20 (C14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	18	07:24 (C14) 07:42 (C14)	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	23	07:56 (C14) 08:19 (C14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	21	07:21 (C14) 07:42 (C14)	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	20	07:58 (C14) 08:18 (C14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	23	07:19 (C14) 07:42 (C14)	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	16	08:00 (C14) 08:16 (C14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	24	07:19 (C14) 07:43 (C14)	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	12	08:03 (C14) 08:15 (C14)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	25	07:18 (C14) 07:43 (C14)	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	8	08:05 (C14) 08:13 (C14)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	25	07:17 (C14) 07:42 (C14)	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	1	08:07 (C14) 08:08 (C14)	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	24	07:18 (C14) 07:42 (C14)	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	07:46 15:38	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	23	07:18 (C14) 07:41 (C14)	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	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	22	07:18 (C14) 07:40 (C14)	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	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	21	07:19 (C14) 07:40 (C14)	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	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	18	07:20 (C14) 07:38 (C14)	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	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	14	07:21 (C14) 07:35 (C14)	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	08:46 15:38	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	7	07:25 (C14) 07:32 (C14)	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 18:09		07:59 16:03	08:47 15:38	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	07:57 18:07		08:01 16:01	08:47 15:38	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 21:49	05:53 20:45	06:55 19:23	07:57 18:04	07:57 18:04		08:03 15:59	08:48 15:39	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	07:59 18:02		08:05 15:58	08:49 15:39	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	07:59 18:00	07:59 18:00		08:07 15:56	08:49 15:40	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	07:59 18:03	07:59 18:03		08:09 15:55	08:50 15:40	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	07:59 18:05	07:59 18:05		08:11 15:53	08:50 15:41	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	07:57 18:07	07:57 18:07	1	08:11 (C14) 08:12 (C14)	08:13 16:52	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	07:59 18:07	07:59 18:07	12	08:05 (C14) 08:17 (C14)	08:15 16:50	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	04:28 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:59 18:04	07:59 18:04	17	08:02 (C14) 08:19 (C14)	08:17 16:48	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	07:59 18:01	07:59 18:01	19	08:01 (C14) 08:20 (C14)	08:19 16:45	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	07:59 18:22	07:59 18:22	22	07:59 (C14) 08:21 (C14)	08:21 16:43	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	07:59 18:23	07:59 18:23	23	07:58 (C14) 08:21 (C14)	08:22 16:41	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	07:20 16:38			08:51 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	529	529	469	385		324		247	216	
Total, worst case			294													
Sun reduction			0.41													
Oper. time red.			0.98													
Wind dir. red.			0.62													
Total reduction			0.25													
Total, real			73													

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:42 (C14)	06:49	05:33
	15:48	16:45	17:48	27 08:09 (C14)	19:53	20:55
2	08:51	08:13	07:08	07:42 (C14)	06:46	05:30
	15:50	16:48	17:50	26 08:08 (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	27 08:09 (C14)	19:57	21:00
4	08:50	08:09	07:03	07:42 (C14)	06:41	05:26
	15:52	16:52	17:54	26 08:08 (C14)	19:59	21:02
5	08:49	08:07	07:01	07:42 (C14)	06:38	05:24
	15:54	16:54	17:56	25 08:07 (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	24 08:07 (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	22 08:05 (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	20 08:04 (C14)	20:08	21:10
9	08:47	07:58	06:50	07:46 (C14)	06:28	05:15
	16:00	17:03	18:05	16 08:02 (C14)	20:10	21:12
10	08:46	07:56	06:48	07:47 (C14)	06:25	05:13
	16:01	17:05	18:07	12 07:59 (C14)	20:12	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	20 07:03 (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	21 07:02 (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	21 07:02 (C13)	21:24
16	08:40	07:43	06:32	06:09	06:41 (C13)	05:01
	16:12	17:19	18:20	20:24	20 07:01 (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	20 07:01 (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	18 06:59 (C13)	21:29
19	08:36	07:36	06:24	06:02	06:42 (C13)	04:55
	16:18	17:26	18:26	20:31	17 06:59 (C13)	21:31
20	08:35	07:33	06:21	05:59	06:44 (C13)	04:53
	16:20	17:28	18:28	20:33	13 06:57 (C13)	21:33
21	08:33	07:31	06:18	05:57	06:45 (C13)	04:52
	16:22	17:30	18:30	20:35	9 06:54 (C13)	21:35
22	08:32	07:28	07:55 (C14)	06:16	05:54	04:50
	16:24	17:32	6 08:01 (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	11 08:04 (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	15 08:05 (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	23 08:08 (C14)	18:41	20:45	21:43
27	08:24	07:16	07:43 (C14)	06:02	05:42	04:42
	16:34	17:43	25 08:08 (C14)	18:43	20:47	21:45
28	08:22	07:13	07:43 (C14)	06:00	05:40	04:41
	16:37	17:45	26 08:09 (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		125	225		212	
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		15	56		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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) 07:01 (C13)	07:17 18:54	07:23 16:36
2	04:31 22:09	05:18 21:26	06:19 20:11	06:49 (C13) 07:00 (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) 06:59 (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) 06:56 (C13)	07:23 18:46	07:29 16:30
5	04:34 22:07	05:24 21:20	06:25 20:04	07:25 18:43	15 19	08:39 (C14) 08:21 (C14)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	19 21	08:40 (C14) 08:41 (C14)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	24	08:18 (C14) 08:42 (C14)
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	25	08:17 (C14) 08:42 (C14)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	26	08:17 (C14) 08:43 (C14)
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	27	08:16 (C14) 08:43 (C14)
11	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	27	08:16 (C14) 08:43 (C14)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	26	08:16 (C14) 08:42 (C14)
13	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	27	08:15 (C14) 08:42 (C14)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	26	08:15 (C14) 08:41 (C14)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	24	08:17 (C14) 08:41 (C14)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	21	08:18 (C14) 08:39 (C14)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	18	08:20 (C14) 08:38 (C14)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:09	14	08:22 (C14) 08:36 (C14)
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	9	08:25 (C14) 08:34 (C14)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	3	08:27 (C14) 08:30 (C14)
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02		08:05 15:58
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00		08:07 15:56
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57		08:09 15:55
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55		08:11 15:53
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52		08:13 15:52
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50		08:15 15:51
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:48		08:17 15:50
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:46		08:19 15:48
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43		08:21 15:47
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:41		08:22 15:46
31	05:14 21:30	06:15 20:17	07:17 18:54	08:19 17:39		08:24 15:45
Potential sun hours	529	469	385	324	247	216
Total, worst case		177	36	361		
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		56	10	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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
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Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
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Table layout: For each day in each month the following matrix apply

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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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

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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
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Total, worst case												
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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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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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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
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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
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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 22:11	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
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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)	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January	February	March	April	May	June	July	August	September	October	November	December
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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
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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
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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
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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
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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
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Total, worst case												
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Table layout: For each day in each month the following matrix apply

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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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

	January	February	March	April	May	June	July	August	September	October	November	December
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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
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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
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Total, worst case												
Sun reduction												
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Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April			May			June		
1	08:51		09:34 (C12)	08:15		09:09 (C11)	07:11		07:56 (C10)	06:49		05:32		06:24 (C8)	04:36		06:25 (C8)	
	15:48	20	09:54 (C12)	16:45	31	09:40 (C11)	17:47	30	08:26 (C10)	19:53		20:55	40	07:04 (C8)	21:52	38	07:03 (C8)	
2	08:50		09:33 (C12)	08:13		09:09 (C11)	07:08		07:54 (C10)	06:46		05:30		06:23 (C8)	04:35		06:25 (C8)	
	15:49	21	09:54 (C12)	16:47	32	09:41 (C11)	17:50	33	08:27 (C10)	19:55		20:57	41	07:04 (C8)	21:54	37	07:02 (C8)	
3	08:50		09:34 (C12)	08:11		09:09 (C11)	07:05		07:53 (C10)	06:43		05:28		06:22 (C8)	04:34		06:26 (C8)	
	15:51	21	09:55 (C12)	16:50	32	09:41 (C11)	17:52	36	08:29 (C10)	19:57		20:59	43	07:05 (C8)	21:55	36	07:02 (C8)	
4	08:50		09:34 (C12)	08:09		09:10 (C11)	07:03		07:52 (C10)	06:41		05:26		06:22 (C8)	04:33		06:26 (C8)	
	15:52	22	09:56 (C12)	16:52	32	09:42 (C11)	17:54	37	08:29 (C10)	19:59		21:01	44	07:06 (C8)	21:56	35	07:01 (C8)	
5	08:49		09:34 (C12)	08:07		09:09 (C11)	07:00		07:50 (C10)	06:38		05:23		06:21 (C8)	04:32		06:27 (C8)	
	15:53	22	09:56 (C12)	16:54	32	09:41 (C11)	17:56	40	08:30 (C10)	20:01		21:03	45	07:06 (C8)	21:58	35	07:02 (C8)	
6	08:49		09:35 (C12)	08:05		09:10 (C11)	06:58		07:50 (C10)	06:35		05:21		06:21 (C8)	04:31		06:28 (C8)	
	15:55	22	09:57 (C12)	16:56	31	09:41 (C11)	17:58	41	08:31 (C10)	20:03		21:05	46	07:07 (C8)	21:59	33	07:01 (C8)	
7	08:48		09:35 (C12)	08:02		09:11 (C11)	06:55		07:49 (C10)	06:33		05:19		06:20 (C8)	04:30		06:28 (C8)	
	15:56	23	09:58 (C12)	16:58	30	09:41 (C11)	18:00	42	08:31 (C10)	20:05		21:08	47	07:07 (C8)	22:00	32	07:00 (C8)	
8	08:47		09:35 (C12)	08:00		09:11 (C11)	06:53		07:48 (C10)	06:30		05:17		06:20 (C8)	04:29		06:29 (C8)	
	15:58	23	09:58 (C12)	17:01	30	09:41 (C11)	18:02	43	08:31 (C10)	20:07		21:10	47	07:07 (C8)	22:01	32	07:01 (C8)	
9	08:47		09:36 (C12)	07:58		09:11 (C11)	06:50		07:48 (C10)	06:27		05:15		06:19 (C8)	04:28		06:29 (C8)	
	15:59	23	09:59 (C12)	17:03	29	09:40 (C11)	18:05	43	08:31 (C10)	20:09		21:12	48	07:07 (C8)	22:02	31	07:00 (C8)	
10	08:46		09:36 (C12)	07:56		09:13 (C11)	06:47		07:47 (C10)	06:25		05:12		06:19 (C8)	04:28		06:30 (C8)	
	16:01	24	10:00 (C12)	17:05	26	09:39 (C11)	18:07	44	08:31 (C10)	20:12		21:14	48	07:07 (C8)	22:03	30	07:00 (C8)	
11	08:45		09:36 (C12)	07:54		09:13 (C11)	06:45		07:47 (C10)	06:22		05:10		06:19 (C8)	04:27		06:30 (C8)	
	16:03	24	10:00 (C12)	17:07	24	09:37 (C11)	18:09	44	08:31 (C10)	20:14		21:16	48	07:07 (C8)	22:04	29	06:59 (C8)	
12	08:44		09:36 (C12)	07:52		09:15 (C11)	06:42		07:46 (C10)	06:20		05:08		06:18 (C8)	04:27		06:31 (C8)	
	16:04	24	10:00 (C12)	17:10	22	09:37 (C11)	18:11	44	08:30 (C10)	20:16		21:18	49	07:07 (C8)	22:05	28	06:59 (C8)	
13	08:43		09:37 (C12)	07:49		09:17 (C11)	06:39		07:47 (C10)	06:17		05:06		06:18 (C8)	04:26		06:32 (C8)	
	16:06	24	10:01 (C12)	17:12	18	09:35 (C11)	18:13	43	08:30 (C10)	20:18		21:19	49	07:07 (C8)	22:06	27	06:59 (C8)	
14	08:42		09:37 (C12)	07:47		09:19 (C11)	06:37		07:47 (C10)	06:14		05:04		06:19 (C8)	04:26		06:32 (C8)	
	16:08	24	10:01 (C12)	17:14	13	09:32 (C11)	18:15	42	08:29 (C10)	20:20		21:21	49	07:08 (C8)	22:06	27	06:59 (C8)	
15	08:41		09:37 (C12)	07:45			06:34		07:46 (C10)	06:12		05:02		06:18 (C8)	04:26		06:33 (C8)	
	16:10	24	10:01 (C12)	17:16			18:17	42	08:28 (C10)	20:22		21:23	49	07:07 (C8)	22:07	26	06:59 (C8)	
16	08:40		09:38 (C12)	07:42			06:31		07:47 (C10)	06:09		05:00		06:18 (C8)	04:25		06:33 (C8)	
	16:12	24	10:02 (C12)	17:19			18:19	41	08:28 (C10)	20:24		21:25	49	07:07 (C8)	22:08	26	06:59 (C8)	
17	08:39		09:38 (C12)	07:40			06:29		07:47 (C10)	06:07		04:59		06:18 (C8)	04:25		06:34 (C8)	
	16:14	23	10:01 (C12)	17:21			18:22	40	08:27 (C10)	20:26		21:27	49	07:07 (C8)	22:08	25	06:59 (C8)	
18	08:37		09:39 (C12)	07:38			06:26		07:48 (C10)	06:04		04:57		06:19 (C8)	04:25		06:34 (C8)	
	16:16	23	10:02 (C12)	17:23			18:24	37	08:25 (C10)	20:28		21:29	48	07:07 (C8)	22:09	25	06:59 (C8)	
19	08:36		09:40 (C12)	07:35			06:23		07:49 (C10)	06:02		04:55		06:19 (C8)	04:25		06:34 (C8)	
	16:18	21	10:01 (C12)	17:25			18:26	35	08:24 (C10)	20:30		21:31	47	07:06 (C8)	22:09	25	06:59 (C8)	
20	08:35		09:16 (C11)	07:33			06:21		07:50 (C10)	05:59		04:53		06:19 (C8)	04:25		06:35 (C8)	
	16:20	32	10:01 (C12)	17:28			18:28	32	08:22 (C10)	20:32		21:33	48	07:07 (C8)	22:10	24	06:59 (C8)	
21	08:33		09:15 (C11)	07:31			06:18		07:50 (C10)	05:57		04:51		06:19 (C8)	04:25		06:35 (C8)	
	16:22	34	10:01 (C12)	17:30			18:30	30	08:20 (C10)	20:34		21:35	47	07:06 (C8)	22:10	24	06:59 (C8)	
22	08:32		09:14 (C11)	07:28			06:15		07:52 (C10)	05:54		04:50		06:20 (C8)	04:25		06:36 (C8)	
	16:24	35	10:00 (C12)	17:32			18:32	26	08:18 (C10)	20:37		21:36	46	07:06 (C8)	22:10	24	07:00 (C8)	
23	08:30		09:12 (C11)	07:26			06:13		07:54 (C10)	05:52		04:48		06:20 (C8)	04:26		06:35 (C8)	
	16:26	36	09:59 (C12)	17:34			18:34	21	08:15 (C10)	20:39		21:38	45	07:05 (C8)	22:10	25	07:00 (C8)	
24	08:29		09:11 (C11)	07:23			06:10		07:57 (C10)	05:49		04:47		06:20 (C8)	04:26		06:35 (C8)	
	16:28	36	09:58 (C12)	17:36			18:36	14	08:11 (C10)	20:41	13	06:52 (C8)	21:40	45	07:05 (C8)	22:10	25	07:00 (C8)
25	08:27		09:11 (C11)	07:21			06:07		05:47			06:35 (C8)	21:40	45	06:21 (C8)	04:26		06:36 (C8)
	16:30	33	09:56 (C12)	17:39			18:38		20:43		21	06:56 (C8)	21:41	44	07:05 (C8)	22:10	25	07:01 (C8)
26	08:25		09:11 (C11)	07:18		08:04 (C10)	06:05		05:44			06:32 (C8)	21:44		06:21 (C8)	04:27		06:35 (C8)
	16:32	26	09:37 (C11)	17:41	16	08:20 (C10)	18:40		20:45		25	06:57 (C8)	21:43	43	07:04 (C8)	22:10	26	07:01 (C8)
27	08:24		09:10 (C11)	07:16		08:00 (C10)	06:02		05:42			06:30 (C8)	21:42		06:22 (C8)	04:27		06:36 (C8)
	16:34	28	09:38 (C11)	17:43	22	08:22 (C10)	18:42		20:47		29	06:59 (C8)	21:45	42	07:04 (C8)	22:10	26	07:02 (C8)
28	08:22		09:10 (C11)	07:13		07:57 (C10)	05:59		05:39			06:28 (C8)	21:41		06:22 (C8)	04:28		06:35 (C8)
	16:36	29	09:39 (C11)	17:45	27	08:24 (C10)	18:45		20:49		33	07:01 (C8)	21:46	42	07:04 (C8)	22:10	27	07:02 (C8)
29	08:20		09:10 (C11)				06:57		05:37			06:26 (C8)	21:43		06:23 (C8)	04:28		06:35 (C8)
	16:38	30	09:40 (C11)				19:47		20:51		35	07:01 (C8)	21:48	41	07:04 (C8)	22:10	27	07:02 (C8)
30	08:18		09:09 (C11)				06:54		05:35			06:25 (C8)	21:43		06:23 (C8)	04:29		06:36 (C8)
	16:41	30	09:39 (C11)				19:49		20:53		38	07:03 (C8)	21:49	41	07:04 (C8)	22:09	27	07:03 (C8)
31	08:16		09:09 (C11)				06:51					04:37			06:24 (C8)			
	16:43	31	09:40 (C11)				19:51					21:51	39	07:03 (C8)				
Potential sun hours		235		266			366		426			508			529			
Total, worst case		812		447			880		194			1409					857	
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		63		52			218		61			501					300	

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July			August			September			October			November			December		
1	04:30		06:35 (C8)	05:16		06:29 (C8)	06:17		07:17		08:26 (C10)	07:22		08:42 (C11)	08:24		09:17 (C12)	
2	22:09	28	07:03 (C8)	21:28	49	07:18 (C8)	20:14		18:53	44	09:10 (C10)	16:36	27	09:09 (C11)	15:45	24	09:41 (C12)	
	04:31		06:35 (C8)	05:17		06:29 (C8)	06:19		07:19		08:26 (C10)	07:25		08:41 (C11)	08:26		09:18 (C12)	
3	22:08	29	07:04 (C8)	21:26	49	07:18 (C8)	20:11		18:51	44	09:10 (C10)	16:34	28	09:09 (C11)	15:44	24	09:42 (C12)	
	04:32		06:35 (C8)	05:19		06:29 (C8)	06:21		07:21		08:25 (C10)	07:27		08:40 (C11)	08:27		09:19 (C12)	
4	22:08	30	07:05 (C8)	21:24	49	07:18 (C8)	20:09		18:48	44	09:09 (C10)	16:31	30	09:10 (C11)	15:43	23	09:42 (C12)	
	04:32		06:35 (C8)	05:21		06:30 (C8)	06:23		07:23		08:25 (C10)	07:29		08:40 (C11)	08:29		09:19 (C12)	
5	22:07	31	07:06 (C8)	21:21	48	07:18 (C8)	20:06		18:45	44	09:09 (C10)	16:29	31	09:11 (C11)	15:42	24	09:43 (C12)	
	04:33		06:34 (C8)	05:23		06:29 (C8)	06:25		07:25		08:25 (C10)	07:31		08:39 (C11)	08:31		09:20 (C12)	
6	22:06	32	07:06 (C8)	21:19	47	07:16 (C8)	20:03		18:43	43	09:08 (C10)	16:27	32	09:11 (C11)	15:41	23	09:43 (C12)	
	04:35		06:34 (C8)	05:25		06:30 (C8)	06:27		07:27		08:25 (C10)	07:33		08:40 (C11)	08:32		09:21 (C12)	
7	22:06	33	07:07 (C8)	21:17	46	07:16 (C8)	20:01		18:40	42	09:07 (C10)	16:25	32	09:12 (C11)	15:41	23	09:44 (C12)	
	04:36		06:34 (C8)	05:27		06:30 (C8)	06:29		07:29		08:25 (C10)	07:35		08:39 (C11)	08:34		09:21 (C12)	
8	22:05	34	07:08 (C8)	21:15	46	07:16 (C8)	19:58		18:38	41	09:06 (C10)	16:23	32	09:11 (C11)	15:40	22	09:43 (C12)	
	04:37		06:34 (C8)	05:29		06:31 (C8)	06:31		07:31		08:25 (C10)	07:38		08:39 (C11)	08:35		09:22 (C12)	
9	22:04	34	07:08 (C8)	21:13	45	07:16 (C8)	19:55		18:35	40	09:05 (C10)	16:21	32	09:11 (C11)	15:40	22	09:44 (C12)	
	04:38		06:33 (C8)	05:31		06:31 (C8)	06:33		07:33		08:26 (C10)	07:40		08:40 (C11)	08:36		09:22 (C12)	
10	22:03	36	07:09 (C8)	21:11	44	07:15 (C8)	19:53		18:32	38	09:04 (C10)	16:19	32	09:12 (C11)	15:39	21	09:43 (C12)	
	04:39		06:33 (C8)	05:33		06:31 (C8)	06:35		07:36		08:27 (C10)	07:42		08:40 (C11)	08:38		09:23 (C12)	
11	22:02	37	07:10 (C8)	21:08	42	07:13 (C8)	19:50		18:30	37	09:04 (C10)	16:17	31	09:11 (C11)	15:39	21	09:44 (C12)	
	04:41		06:32 (C8)	05:35		06:32 (C8)	06:37		07:38		08:28 (C10)	07:44		08:40 (C11)	08:39		09:24 (C12)	
12	22:01	38	07:10 (C8)	21:06	41	07:13 (C8)	19:47		18:27	34	09:02 (C10)	16:15	32	09:12 (C11)	15:38	20	09:44 (C12)	
	04:42		06:32 (C8)	05:37		06:33 (C8)	06:39		07:40		08:29 (C10)	07:46		08:41 (C11)	08:40		09:24 (C12)	
13	22:00	38	07:10 (C8)	21:04	39	07:12 (C8)	19:45		18:24	32	09:01 (C10)	16:13	30	09:11 (C11)	15:38	20	09:44 (C12)	
	04:43		06:32 (C8)	05:39		06:34 (C8)	06:41		07:42		08:30 (C10)	07:48		08:42 (C11)	08:41		09:25 (C12)	
14	21:59	40	07:12 (C8)	21:01	37	07:11 (C8)	19:42		18:22	29	08:59 (C10)	16:11	30	09:12 (C11)	15:38	20	09:45 (C12)	
	04:45		06:32 (C8)	05:41		06:35 (C8)	06:43		07:44		08:31 (C10)	07:51		08:42 (C11)	08:42		09:26 (C12)	
15	21:58	40	07:12 (C8)	20:59	35	07:10 (C8)	19:39		18:19	25	08:56 (C10)	16:09	29	09:11 (C11)	15:38	19	09:45 (C12)	
	04:46		06:31 (C8)	05:43		06:36 (C8)	06:45		07:46		08:33 (C10)	07:53		08:42 (C11)	08:43		09:26 (C12)	
16	21:56	41	07:12 (C8)	20:57	32	07:08 (C8)	19:36		18:17	20	08:53 (C10)	16:07	28	09:10 (C11)	15:38	19	09:45 (C12)	
	04:48		06:31 (C8)	05:45		06:38 (C8)	06:47		07:48		08:38 (C10)	07:55		08:44 (C11)	08:44		09:27 (C12)	
17	21:55	43	07:14 (C8)	20:54	28	07:06 (C8)	19:34		18:14	12	08:50 (C10)	16:06	26	09:10 (C11)	15:38	19	09:46 (C12)	
	04:49		06:31 (C8)	05:47		06:39 (C8)	06:49		07:50		08:45 (C11)	07:57		08:45 (C11)	08:45		09:28 (C12)	
18	21:54	43	07:14 (C8)	20:52	24	07:03 (C8)	19:31		18:12		16:04	33	09:30 (C12)	15:38	18	09:46 (C12)		
	04:51		06:31 (C8)	05:49		06:41 (C8)	06:51		07:52		07:59	36	09:32 (C12)	15:38	17	09:46 (C12)		
19	21:52	44	07:15 (C8)	20:49	19	07:00 (C8)	19:28		18:09		16:02	36	09:32 (C12)	15:38	17	09:46 (C12)		
	04:52		06:30 (C8)	05:51		06:45 (C8)	06:53	08:45 (C10)	07:54		08:01		08:47 (C11)	08:47		09:28 (C12)		
20	21:51	45	07:15 (C8)	20:47	11	06:56 (C8)	19:26	11	08:56 (C10)	18:07	16:01	36	09:34 (C12)	15:38	18	09:46 (C12)		
	04:54		06:31 (C8)	05:53		06:55	19:23	19	08:41 (C10)	07:56	08:03		08:49 (C11)	08:48		09:29 (C12)		
21	21:49	45	07:16 (C8)	20:44		06:57	19:20	19	09:00 (C10)	18:04	15:59	35	09:35 (C12)	15:38	18	09:47 (C12)		
	04:56		06:30 (C8)	05:55		06:59	19:20	25	08:38 (C10)	07:59	08:05		08:50 (C11)	08:48		09:29 (C12)		
22	21:48	46	07:16 (C8)	20:42		06:59	19:20	25	09:03 (C10)	18:02	15:57	34	09:36 (C12)	15:39	18	09:47 (C12)		
	04:57		06:30 (C8)	05:57		06:59	19:20	25	08:36 (C10)	08:01	08:07		08:52 (C11)	08:49		09:30 (C12)		
23	21:46	47	07:17 (C8)	20:39		07:01	19:18	28	09:04 (C10)	17:59	15:56	32	09:37 (C12)	15:39	18	09:48 (C12)		
	04:59		06:29 (C8)	05:59		07:01	19:18	28	08:34 (C10)	08:03	08:09		09:17 (C12)	08:49		09:30 (C12)		
24	21:44	47	07:16 (C8)	20:37		07:03	19:15	32	09:06 (C10)	17:57	15:55	21	09:38 (C12)	15:40	18	09:48 (C12)		
	05:01		06:30 (C8)	06:01		07:03	19:15	32	08:32 (C10)	08:05	08:11		09:17 (C12)	08:50		09:31 (C12)		
25	21:43	47	07:17 (C8)	20:34		07:05	19:12	35	09:07 (C10)	17:54	15:53	22	09:39 (C12)	15:40	18	09:49 (C12)		
	05:03		06:29 (C8)	06:03		07:05	19:12	35	08:31 (C10)	07:07	08:13		09:16 (C12)	08:50		09:31 (C12)		
26	21:41	48	07:17 (C8)	20:32		07:07	19:10	37	09:08 (C10)	16:52	15:52	23	09:39 (C12)	15:41	18	09:49 (C12)		
	05:04		06:29 (C8)	06:05		07:07	19:10	37	08:29 (C10)	07:09	08:15		09:16 (C12)	08:50		09:32 (C12)		
27	21:39	48	07:17 (C8)	20:29		07:09	19:07	39	09:08 (C10)	16:50	15:51	24	09:40 (C12)	15:42	18	09:50 (C12)		
	05:06		06:29 (C8)	06:07		07:09	19:07	39	08:28 (C10)	07:12	08:17		09:16 (C12)	08:51		09:32 (C12)		
28	21:37	49	07:18 (C8)	20:27		07:11	19:04	41	09:09 (C10)	16:47	7	08:59 (C11)	15:49	24	09:40 (C12)	15:43	18	09:50 (C12)
	05:08		06:28 (C8)	06:09		07:11	19:04	41	08:27 (C10)	07:14	08:19		09:16 (C12)	08:51		09:32 (C12)		
29	21:35	49	07:17 (C8)	20:24		07:13	19:01	42	09:09 (C10)	16:45	14	09:02 (C11)	15:48	24	09:40 (C12)	15:44	19	09:51 (C12)
	05:10		06:29 (C8)	06:11		07:13	19:01	42	08:27 (C10)	07:16	08:19		09:18 (C12)	08:51		09:33 (C12)		
30	21:34	49	07:18 (C8)	20:22		07:15	18:59	42	09:09 (C10)	16:43	19	09:05 (C11)	15:47	24	09:42 (C12)	15:44	19	09:52 (C12)
	05:12		06:29 (C8)	06:13		07:15	18:59	42	08:27 (C10)	07:18	08:22		09:18 (C12)	08:51		09:33 (C12)		
31	21:32	49	07:18 (C8)	20:19		07:16	18:56	43	09:10 (C10)	16:40	22	09:06 (C11)	15:46	24	09:42 (C12)	15:45	20	09:53 (C12)
	05:14		06:28 (C8)	06:15		07:16	18:56	43	08:42 (C11)	07:20	08:24		09:19 (C12)	08:51		09:33 (C12)		
	21:30	49	07:17 (C8)	20:16		07:17	16:38	25	09:07 (C11)	16:38	25	09:07 (C11)	15:47	20	09:53 (C12)			
Potential sun hours	529		469		385		324		247		216		619					
Total, worst case	1269		731		394		656		874		619							
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		0.60		0.61							
Total reduction	0.31		0.31		0.26		0.15		0.05		0.04							
Total, real	392		228		101		101		41		25							

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	09:15 (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	08:57 (C13) 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	08:53 (C13) 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	08:51 (C13) 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	08:49 (C13) 15:42
5	08:49 15:53	08:07 16:54	09:18 (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	08:48 (C13) 15:42
6	08:49 15:55	08:05 16:56	09:18 (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	08:48 (C13) 15:41
7	08:48 15:56	08:03 16:59	09:20 (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	08:47 (C13) 15:40
8	08:48 15:58	08:01 17:01	09:22 (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	08:47 (C13) 15:40
9	08:47 15:59	07:58 17:03	09:39 (C13) 18:05	06:50 20:10	06:28 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	08:46 (C13) 15:39
10	08:46 16:01	07:56 17:05	09:36 (C13) 18:05	06:47 20:10	06:25 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	08:46 (C13) 15:39
11	08:45 16:03	07:54 17:08	09:31 (C13) 18:07	06:45 20:12	06:22 21:14	04:27 22:03	04:41 22:02	05:35 21:08	06:37 19:50	07:38 18:30	07:44 16:17	08:46 (C13) 15:39
12	08:44 16:05	07:52 17:10	09:29 (C13) 18:08	06:42 20:14	06:20 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:47	07:40 18:27	07:46 16:15	08:46 (C13) 15:38
13	08:43 16:06	07:50 17:12	09:28 (C13) 18:09	06:40 20:16	06:17 21:18	04:26 22:05	04:43 22:00	05:39 21:04	06:41 19:45	07:42 18:25	07:49 16:13	08:46 (C13) 15:38
14	08:42 16:08	07:47 17:14	09:27 (C13) 18:10	06:37 20:18	06:15 21:20	04:26 22:06	04:45 21:59	05:41 21:02	06:43 19:42	07:44 18:22	07:51 16:11	08:46 (C13) 15:38
15	08:41 16:10	07:45 17:17	09:26 (C13) 18:11	06:34 20:20	06:12 21:22	04:26 22:07	04:46 21:58	05:43 20:59	06:45 19:39	07:46 18:20	07:53 16:09	08:47 (C13) 15:38
16	08:40 16:12	07:43 17:19	09:25 (C13) 18:12	06:32 20:22	06:09 21:24	04:25 22:07	04:48 21:57	05:45 20:57	06:47 19:37	07:48 18:17	07:55 16:08	08:47 (C13) 15:38
17	08:39 16:14	07:40 17:21	09:24 (C13) 18:13	06:29 20:24	06:07 21:26	04:25 22:08	04:49 21:55	05:47 20:54	06:49 19:34	07:50 18:14	07:57 16:06	08:47 (C13) 15:38
18	08:38 16:16	07:38 17:23	09:23 (C13) 18:14	06:26 20:26	06:04 21:27	04:25 22:09	04:51 21:54	05:49 20:52	06:51 19:31	07:52 18:12	07:59 16:04	08:49 (C13) 15:38
19	08:36 16:18	07:36 17:26	09:22 (C13) 18:15	06:24 20:28	06:02 21:29	04:25 22:09	04:52 21:53	05:51 20:50	06:53 19:29	07:55 18:09	08:01 16:02	08:49 (C13) 15:38
20	08:35 16:20	07:33 17:28	09:21 (C13) 18:16	06:21 20:31	05:59 21:31	04:25 22:09	04:54 21:51	05:53 20:47	06:55 19:26	07:57 18:07	08:03 16:01	08:50 (C13) 15:38
21	08:33 16:22	07:31 17:30	09:20 (C13) 18:17	06:18 20:33	05:57 21:33	04:25 22:10	04:56 21:49	05:55 20:45	06:57 19:23	07:59 18:04	08:05 15:59	08:50 (C13) 15:39
22	08:32 16:24	07:28 17:32	09:19 (C13) 18:18	06:16 20:35	05:54 21:35	04:25 22:10	04:57 21:48	05:57 20:42	06:59 19:21	08:01 18:02	08:07 15:58	08:52 (C13) 15:39
23	08:30 16:26	07:26 17:34	09:18 (C13) 18:19	06:13 20:37	05:52 21:37	04:26 22:10	04:59 21:46	05:59 20:40	07:01 19:18	08:03 17:59	08:09 15:56	08:53 (C13) 15:39
24	08:29 16:28	07:23 17:37	09:17 (C13) 18:20	06:10 20:39	05:49 21:38	04:26 22:10	05:01 21:45	06:01 20:37	07:03 19:15	08:05 17:57	08:11 15:55	08:54 (C13) 15:40
25	08:27 16:30	07:21 17:39	09:16 (C13) 18:21	06:08 20:41	05:47 21:40	04:26 22:10	05:03 21:43	06:03 20:35	07:05 19:12	07:07 17:55	08:13 15:53	08:56 (C13) 15:41
26	08:26 16:32	07:18 17:41	09:15 (C13) 18:22	06:05 20:43	05:44 21:42	04:27 22:10	05:05 21:41	06:05 20:32	07:07 19:10	07:10 16:52	08:15 15:52	08:58 (C13) 15:41
27	08:24 16:34	07:16 17:43	09:14 (C13) 18:23	06:02 20:45	05:42 21:43	04:27 22:10	05:06 21:39	06:07 20:30	07:09 19:07	07:12 16:50	08:17 15:51	09:01 (C13) 15:42
28	08:22 16:36	07:13 17:45	09:13 (C13) 18:24	05:59 20:47	05:40 21:44	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	09:07 (C13) 15:43
29	08:20 16:39	07:09 17:48	09:12 (C13) 18:25	05:57 20:49	05:37 21:47	04:29 22:10	05:10 21:36	06:11 20:24	07:13 19:02	07:16 16:45	08:21 15:48	09:08 (C13) 15:44
30	08:19 16:41	07:04 17:51	09:11 (C13) 18:26	05:54 20:50	05:35 21:48	04:30 22:10	05:12 21:34	06:13 20:22	07:15 18:59	07:18 16:43	08:22 15:47	09:09 (C13) 15:45
31	08:17 16:43	06:51 17:54	09:10 (C13) 18:27	05:51 20:53	05:30 21:50	04:31 22:09	05:14 21:32	06:15 20:19	07:20 18:56	07:20 16:41	08:23 15:46	09:10 (C13) 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	387	208									597	
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	30	24									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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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		07:21 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:
09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	6	07:14 (C14) 07:20 (C14)	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	17	07:02 (C14) 07:19 (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	18	07:01 (C14) 07:19 (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	20	07:00 (C14) 07:20 (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	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	21	06:59 (C14) 07:20 (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	20	07:03 (C14) 07:23 (C14)	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	21	06:59 (C14) 07:20 (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	20	06:59 (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	07:02 (C14) 07:23 (C14)	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	20	06:59 (C14) 07:19 (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	21	07:02 (C14) 07:23 (C14)	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	20	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	20	07:02 (C14) 07:22 (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	20	07:02 (C14) 07:20 (C14)	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	14	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	18	07:03 (C14) 07:20 (C14)	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	11	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	17	07:04 (C14) 07:17 (C14)	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	7	07:08 (C14) 07:09 (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	13	07:06 (C14) 07:15 (C14)	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	1	07:09 (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	9	07:15 (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			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 20:54	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	08:47 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 15:39
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 21:37	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 15:53	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 17:10	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 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	07:11 17:47	06:57 18:45	05:37 20:49			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	07:09 17:54	06:54 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		07:06 (C14) 07:16 (C14)	08:17 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:07 17:54	06:52 18:49	05:33 20:53			04:37 21:51	04:30 22:10	05:14 21:30	06:15 20:17	07:17 (C14) 14 07:17 (C14)			08:18 16:38	08:22 15:47	08:51 15:47
Potential sun hours	235	266	366	426			508	528	529	469	385			324	247	216
Total, worst case				207							24			187		
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				67						8	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		14:06 (C13)	07:11	06:49	05:32	04:36
	15:48	30	14:30 (C13)	16:45	38	14:44 (C13)	17:47	19:53	20:55	21:53
2	08:50		14:00 (C13)	08:13		14:07 (C13)	07:08	06:46	05:30	04:35
	15:49	32	14:32 (C13)	16:47	37	14:44 (C13)	17:50	19:55	20:57	21:54
3	08:50		14:00 (C13)	08:11		14:08 (C13)	07:06	06:43	05:28	04:34
	15:51	32	14:32 (C13)	16:50	36	14:44 (C13)	17:52	19:57	20:59	21:55
4	08:50		14:00 (C13)	08:09		14:09 (C13)	07:03	06:41	05:26	04:33
	15:52	32	14:32 (C13)	16:52	34	14:43 (C13)	17:54	19:59	21:02	21:57
5	08:49		14:00 (C13)	08:07		14:11 (C13)	07:00	06:38	05:23	04:32
	15:53	34	14:34 (C13)	16:54	31	14:42 (C13)	17:56	20:01	21:04	21:58
6	08:49		14:00 (C13)	08:05		14:12 (C13)	06:58	06:35	05:21	04:31
	15:55	35	14:35 (C13)	16:56	28	14:40 (C13)	17:58	20:03	21:06	21:59
7	08:48		14:00 (C13)	08:03		14:14 (C13)	06:55	06:33	05:19	04:30
	15:56	35	14:35 (C13)	16:59	25	14:39 (C13)	18:00	20:05	21:08	22:00
8	08:47		14:00 (C13)	08:00		14:16 (C13)	06:53	06:30	05:17	04:29
	15:58	36	14:36 (C13)	17:01	21	14:37 (C13)	18:03	20:07	21:10	22:01
9	08:47		14:00 (C13)	07:58		14:19 (C13)	06:50	06:27	05:15	04:28
	15:59	37	14:37 (C13)	17:03	15	14:34 (C13)	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
	16:01	38	14:38 (C13)	17:05		18:07	20:12	2	06:52 (C4)	21:14
11	08:45		14:00 (C13)	07:54		06:45	06:22		06:48 (C4)	05:10
	16:03	39	14:39 (C13)	17:08		18:09	20:14	9	06:57 (C4)	21:16
12	08:44		14:00 (C13)	07:52		06:42	06:20		06:45 (C4)	05:08
	16:04	39	14:39 (C13)	17:10		18:11	20:16	13	06:58 (C4)	21:18
13	08:43		14:00 (C13)	07:49		06:39	06:17		06:43 (C4)	05:06
	16:06	40	14:40 (C13)	17:12		18:13	20:18	16	06:59 (C4)	21:20
14	08:42		14:00 (C13)	07:47		06:37	06:14		06:40 (C4)	05:04
	16:08	41	14:41 (C13)	17:14		18:15	20:20	19	06:59 (C4)	21:22
15	08:41		14:00 (C13)	07:45		06:34	06:12		06:39 (C4)	05:02
	16:10	41	14:41 (C13)	17:17		18:17	20:22	21	07:00 (C4)	21:24
16	08:40		14:00 (C13)	07:43		06:31	06:09		06:38 (C4)	05:01
	16:12	42	14:42 (C13)	17:19		18:20	20:24	22	07:00 (C4)	21:25
17	08:39		14:00 (C13)	07:40		06:29	06:07		06:38 (C4)	04:59
	16:14	42	14:42 (C13)	17:21		18:22	20:26	22	07:00 (C4)	21:27
18	08:37		14:01 (C13)	07:38		06:26	06:04		06:37 (C4)	04:57
	16:16	42	14:43 (C13)	17:23		18:24	20:28	22	06:59 (C4)	21:29
19	08:36		14:00 (C13)	07:35		06:23	06:02		06:38 (C4)	04:55
	16:18	43	14:43 (C13)	17:25		18:26	20:30	21	06:59 (C4)	21:31
20	08:35		14:01 (C13)	07:33		06:21	05:59		06:37 (C4)	04:53
	16:20	43	14:44 (C13)	17:28		18:28	20:32	21	06:58 (C4)	21:33
21	08:33		14:01 (C13)	07:31		06:18	05:57		06:38 (C4)	04:52
	16:22	43	14:44 (C13)	17:30		18:30	20:35	20	06:58 (C4)	21:35
22	08:32		14:01 (C13)	07:28		06:15	05:54		06:39 (C4)	04:50
	16:24	44	14:45 (C13)	17:32		18:32	20:37	18	06:57 (C4)	21:36
23	08:30		14:01 (C13)	07:26		06:13	05:52		06:40 (C4)	04:48
	16:26	44	14:45 (C13)	17:34		18:34	20:39	15	06:55 (C4)	21:38
24	08:29		14:01 (C13)	07:23		06:10	05:49		06:41 (C4)	04:47
	16:28	44	14:45 (C13)	17:37		18:36	20:41	12	06:53 (C4)	21:40
25	08:27		14:03 (C13)	07:21		06:07	05:47		06:44 (C4)	04:45
	16:30	43	14:46 (C13)	17:39		18:38	20:43	7	06:51 (C4)	21:42
26	08:25		14:03 (C13)	07:18		06:05	05:44			04:44
	16:32	43	14:46 (C13)	17:41		18:40	20:45			21:43
27	08:24		14:03 (C13)	07:16		06:02	05:42			04:42
	16:34	43	14:46 (C13)	17:43		18:43	20:47			21:45
28	08:22		14:04 (C13)	07:13		05:59	05:40			04:41
	16:36	42	14:46 (C13)	17:45		18:45	20:49			21:47
29	08:20		14:04 (C13)			06:57	05:37			04:39
	16:39	42	14:46 (C13)			19:47	20:51			21:48
30	08:18		14:05 (C13)			06:54	05:35			04:38
	16:41	41	14:46 (C13)			19:49	20:53			21:50
31	08:17		14:05 (C13)			06:51				04:37
	16:43	40	14:45 (C13)			19:51				21:51
Potential sun hours	235			266		366	426		508	529
Total, worst case	1222			265			260			
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	106			35			84			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	8	06:55 (C4)	18:54
2	04:31	05:17	06:19	06:49 (C4)	07:19	07:25
	22:08	21:26	20:11	2	06:51 (C4)	18:51
3	04:32	05:19	06:21		07:21	07:27
	22:08	21:24	20:09		18:48	16:31
4	04:33	05:21	06:23		07:23	07:29
	22:07	21:22	20:06		18:46	16:29
5	04:34	05:23	06:25		07:25	07:31
	22:07	21:19	20:03		18:43	16:27
6	04:35	05:25	06:27		07:27	07:33
	22:06	21:17	20:01		18:40	16:25
7	04:36	05:27	06:29		07:29	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	19:55		18:35	16:21
9	04:38	05:31	06:33		07:34	07:40
	22:03	21:11	19:53		18:32	16:19
10	04:39	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	19:47		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	04:43	05:39	06:41		07:42	07:49
	21:59	21:01	19:42		18:22	16:11
14	04:45	05:41	06:43		07:44	07:51
	21:58	20:59	19:39		18:19	16:09
15	04:46	05:43	06:45		07:46	07:53
	21:57	20:57	19:37		18:17	16:08
16	04:48	05:45	06:47		07:48	07:55
	21:55	20:54	19:34		18:14	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	20:49	8	06:57 (C4)	18:09	16:02
19	04:52	05:51	06:53		07:54	08:01
	21:51	20:47	12	06:59 (C4)	18:07	16:01
20	04:54	05:53	06:55		07:57	08:03
	21:49	20:45	16	07:01 (C4)	18:04	15:59
21	04:56	05:55	06:57		07:59	08:05
	21:48	20:42	18	07:02 (C4)	18:02	15:58
22	04:57	05:57	06:59		08:01	08:07
	21:46	20:40	20	07:03 (C4)	17:59	15:56
23	04:59	05:59	07:01		08:03	08:09
	21:45	20:37	21	07:03 (C4)	17:57	15:55
24	05:01	06:01	07:03		08:05	08:11
	21:43	20:35	21	07:03 (C4)	17:55	15:53
25	05:03	06:03	07:05		07:07	08:13
	21:41	20:32	22	07:03 (C4)	16:52	15:52
26	05:04	06:05	07:07		07:09	08:15
	21:39	20:29	22	07:02 (C4)	16:50	15:51
27	05:06	06:07	07:09		07:12	08:17
	21:37	20:27	22	07:02 (C4)	16:47	15:49
28	05:08	06:09	07:11		07:14	08:19
	21:36	20:24	21	07:01 (C4)	16:45	15:48
29	05:10	06:11	07:13		07:16	08:21
	21:34	20:22	19	07:00 (C4)	16:43	15:47
30	05:12	06:13	07:15		07:18	08:22
	21:32	20:19	16	06:59 (C4)	16:40	15:46
31	05:14	06:15	07:17		07:20	
	21:30	20:17	13	06:58 (C4)	16:38	
Potential sun hours	529	469	385	324	247	216
Total, worst case		251	10		1113	933
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		80	3		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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)

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January		February		March		April		May		June	
1	08:51		08:15	14:22 (C13)	07:11	06:49			05:32	04:36		
	15:48		16:45	43	15:05 (C13)	17:47	19:53		20:55	21:52		
2	08:50		14:32 (C13)	08:13	14:22 (C13)	07:08	06:46		05:30	04:35		
	15:49	5	14:37 (C13)	16:47	43	15:05 (C13)	17:50	19:55	20:57	21:54		
3	08:50		14:30 (C13)	08:11		14:23 (C13)	07:06	06:43	05:28	04:34		
	15:51	9	14:39 (C13)	16:50	42	15:05 (C13)	17:52	19:57	20:59	21:55		
4	08:50		14:28 (C13)	08:09		14:24 (C13)	07:03	06:41	05:26	04:33		
	15:52	13	14:41 (C13)	16:52	41	15:05 (C13)	17:54	19:59	21:02	21:57		
5	08:49		14:28 (C13)	08:07		14:25 (C13)	07:00	06:38	05:23	04:32		
	15:53	15	14:43 (C13)	16:54	40	15:05 (C13)	17:56	20:01	21:04	21:58		
6	08:49		14:27 (C13)	08:05		14:25 (C13)	06:58	06:35	05:21	04:31		
	15:55	18	14:45 (C13)	16:56	39	15:04 (C13)	17:58	20:03	21:06	21:59		
7	08:48		14:26 (C13)	08:03		14:26 (C13)	06:55	06:33	05:19	04:30		
	15:56	20	14:46 (C13)	16:59	38	15:04 (C13)	18:00	20:05	21:08	22:00		
8	08:47		14:25 (C13)	08:00		14:27 (C13)	06:53	06:30	05:17	04:29		
	15:58	23	14:48 (C13)	17:01	36	15:03 (C13)	18:03	20:07	21:10	22:01		
9	08:47		14:25 (C13)	07:58		14:28 (C13)	06:50	06:27	05:15	04:28		
	15:59	24	14:49 (C13)	17:03	34	15:02 (C13)	18:05	20:10	21:12	22:02		
10	08:46		14:24 (C13)	07:56		14:29 (C13)	06:47	06:25	05:13	04:28		
	16:01	26	14:50 (C13)	17:05	32	15:01 (C13)	18:07	20:12	21:14	22:03		
11	08:45		14:24 (C13)	07:54		14:31 (C13)	06:45	06:22	05:10	04:27		
	16:03	28	14:52 (C13)	17:08	29	15:00 (C13)	18:09	20:14	21:16	22:04		
12	08:44		14:23 (C13)	07:52		14:33 (C13)	06:42	06:20	05:08	04:27		
	16:04	29	14:52 (C13)	17:10	25	14:58 (C13)	18:11	20:16	21:18	22:05		
13	08:43		14:23 (C13)	07:49		14:35 (C13)	06:39	06:17	05:06	04:26		
	16:06	31	14:54 (C13)	17:12	21	14:56 (C13)	18:13	20:18	21:20	22:06		
14	08:42		14:23 (C13)	07:47		14:38 (C13)	06:37	06:14	05:04	04:26		
	16:08	32	14:55 (C13)	17:14	14	14:52 (C13)	18:15	20:20	9	06:49 (C4)	21:22	22:07
15	08:41		14:22 (C13)	07:45		06:34	06:12	06:38 (C4)	05:02	04:26		
	16:10	34	14:56 (C13)	17:17		18:17	20:22	13	06:51 (C4)	21:24	22:07	
16	08:40		14:22 (C13)	07:43		06:31	06:09	06:35 (C4)	05:01	04:25		
	16:12	35	14:57 (C13)	17:19		18:20	20:24	17	06:52 (C4)	21:25	22:08	
17	08:39		14:21 (C13)	07:40		06:29	06:07	06:33 (C4)	04:59	04:25		
	16:14	36	14:57 (C13)	17:21		18:22	20:26	20	06:53 (C4)	21:27	22:08	
18	08:37		14:22 (C13)	07:38		06:26	06:04	06:32 (C4)	04:57	04:25		
	16:16	37	14:59 (C13)	17:23		18:24	20:28	21	06:53 (C4)	21:29	22:09	
19	08:36		14:21 (C13)	07:35		06:23	06:02	06:31 (C4)	04:55	04:25		
	16:18	38	14:59 (C13)	17:25		18:26	20:30	22	06:53 (C4)	21:31	22:09	
20	08:35		14:22 (C13)	07:33		06:21	05:59	06:30 (C4)	04:53	04:25		
	16:20	39	15:01 (C13)	17:28		18:28	20:32	23	06:53 (C4)	21:33	22:10	
21	08:33		14:21 (C13)	07:31		06:18	05:57	06:30 (C4)	04:52	04:25		
	16:22	40	15:01 (C13)	17:30		18:30	20:35	23	06:53 (C4)	21:35	22:10	
22	08:32		14:21 (C13)	07:28		06:15	05:54	06:31 (C4)	04:50	04:25		
	16:24	41	15:02 (C13)	17:32		18:32	20:37	22	06:53 (C4)	21:36	22:10	
23	08:30		14:21 (C13)	07:26		06:13	05:52	06:30 (C4)	04:48	04:26		
	16:26	41	15:02 (C13)	17:34		18:34	20:39	22	06:52 (C4)	21:38	22:10	
24	08:29		14:21 (C13)	07:23		06:10	05:49	06:31 (C4)	04:47	04:26		
	16:28	42	15:03 (C13)	17:37		18:36	20:41	21	06:52 (C4)	21:40	22:10	
25	08:27		14:21 (C13)	07:21		06:07	05:47	06:31 (C4)	04:45	04:26		
	16:30	43	15:04 (C13)	17:39		18:38	20:43	20	06:51 (C4)	21:42	22:10	
26	08:25		14:21 (C13)	07:18		06:05	05:44	06:31 (C4)	04:44	04:27		
	16:32	43	15:04 (C13)	17:41		18:40	20:45	18	06:49 (C4)	21:43	22:10	
27	08:24		14:21 (C13)	07:16		06:02	05:42	06:33 (C4)	04:42	04:27		
	16:34	44	15:05 (C13)	17:43		18:43	20:47	15	06:48 (C4)	21:45	22:10	
28	08:22		14:22 (C13)	07:13		05:59	05:40	06:34 (C4)	04:41	04:28		
	16:36	43	15:05 (C13)	17:45		18:45	20:49	13	06:47 (C4)	21:47	22:10	
29	08:20		14:22 (C13)			06:57	05:37	06:37 (C4)	04:39	04:28		
	16:39	43	15:05 (C13)			19:47	20:51	7	06:44 (C4)	21:48	22:10	
30	08:18		14:22 (C13)			06:54	05:35		04:38	04:29		
	16:41	44	15:06 (C13)			19:49	20:53		21:50	22:09		
31	08:17		14:21 (C13)			06:51			04:37			
	16:43	44	15:05 (C13)			19:51			21:51			
Potential sun hours	235		266		366	426		508	529			
Total, worst case	960		477			286						
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	84		63			92						

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	13:59 (C13) 14:31 (C13)
2	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	13:57 (C13) 14:31 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	13:57 (C13) 14:33 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	13:55 (C13) 14:33 (C13)
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	13:54 (C13) 14:34 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	13:54 (C13) 14:35 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	13:54 (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	13:54 (C13) 14:36 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	13:53 (C13) 14:36 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	13:53 (C13) 14:36 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	13:53 (C13) 14:37 (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) 14:36 (C13)
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	13:54 (C13) 14:37 (C13)
14	04:45 21:58	05:41 20:59	06:43 (C4) 06:53 (C4)	07:44 19:39	07:51 16:09	13:53 (C13) 14:37 (C13)
15	04:46 21:57	05:43 20:57	06:41 (C4) 06:55 (C4)	07:45 19:37	07:53 16:08	13:53 (C13) 14:37 (C13)
16	04:48 21:55	05:45 20:54	06:40 (C4) 06:56 (C4)	07:48 19:34	07:55 16:06	13:54 (C13) 14:37 (C13)
17	04:49 21:54	05:47 20:52	06:38 (C4) 06:56 (C4)	07:50 19:31	07:57 16:04	13:54 (C13) 14:37 (C13)
18	04:51 21:52	05:49 20:49	06:37 (C4) 06:57 (C4)	07:52 19:29	07:59 16:02	13:55 (C13) 14:37 (C13)
19	04:52 21:51	05:51 20:47	06:36 (C4) 06:57 (C4)	07:53 19:26	08:01 16:01	13:56 (C13) 14:37 (C13)
20	04:54 21:49	05:53 20:45	06:36 (C4) 06:58 (C4)	07:55 19:23	08:03 15:59	13:56 (C13) 14:37 (C13)
21	04:56 21:48	05:55 20:42	06:35 (C4) 06:58 (C4)	07:57 19:20	08:05 15:58	13:56 (C13) 14:36 (C13)
22	04:57 21:46	05:57 20:40	06:35 (C4) 06:58 (C4)	08:01 19:18	08:07 15:56	13:58 (C13) 14:37 (C13)
23	04:59 21:45	05:59 20:37	06:35 (C4) 06:57 (C4)	08:03 19:15	08:09 15:55	13:58 (C13) 14:36 (C13)
24	05:01 21:43	06:01 20:35	06:35 (C4) 06:57 (C4)	08:05 19:12	08:11 15:53	13:59 (C13) 14:36 (C13)
25	05:03 21:41	06:03 20:32	06:35 (C4) 06:56 (C4)	08:07 19:10	08:13 15:52	13:59 (C13) 14:36 (C13)
26	05:04 21:39	06:05 20:29	06:35 (C4) 06:54 (C4)	08:07 19:07	08:15 15:51	14:00 (C13) 14:35 (C13)
27	05:06 21:37	06:07 20:27	06:37 (C4) 06:53 (C4)	08:09 19:04	08:17 15:49	14:02 (C13) 14:36 (C13)
28	05:08 21:36	06:09 20:24	06:39 (C4) 06:52 (C4)	08:11 19:02	08:19 15:48	14:03 (C13) 14:35 (C13)
29	05:10 21:34	06:11 20:22	06:41 (C4) 06:49 (C4)	08:13 18:59	08:21 15:47	14:04 (C13) 14:35 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:15 18:56	08:22 15:46	14:05 (C13) 14:34 (C13)
31	05:14 21:30	06:15 20:17	07:20 16:38	08:15 14:29 (C13)	08:22 15:47	14:05 (C13) 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		288		97	1170	183
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		92		16	63	8

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	13:19 (C16)	07:11	15:37 (C15)	06:49	05:32	04:36	20:28 (C13)							
	15:48	45	13:40 (C16)	16:45	17	13:36 (C16)	17:47	36	16:13 (C15)	19:53	20:55	21:52	31	20:59 (C13)			
2	08:50	12:54 (C16)	08:13	13:24 (C16)	07:08	15:38 (C15)	06:46	05:30	04:35	20:28 (C13)							
	15:49	46	13:40 (C16)	16:47	8	13:32 (C16)	17:50	34	16:12 (C15)	19:55	20:57	21:54	32	21:00 (C13)			
3	08:50	12:55 (C16)	08:11			07:06	15:40 (C15)	06:43	05:28	04:34	20:28 (C13)						
	15:51	46	13:41 (C16)	16:50		17:52	31	16:11 (C15)	19:57	20:59	21:55	32	21:00 (C13)				
4	08:50	12:55 (C16)	08:09			07:03	15:41 (C15)	06:41	05:26	04:33	20:27 (C13)						
	15:52	46	13:41 (C16)	16:52		17:54	28	16:09 (C15)	19:59	21:01	21:56	33	21:00 (C13)				
5	08:49	12:56 (C16)	08:07			07:00	15:43 (C15)	06:38	05:23	04:32	20:28 (C13)						
	15:53	45	13:41 (C16)	16:54		17:56	23	16:06 (C15)	20:01	21:04	21:58	34	21:02 (C13)				
6	08:49	12:57 (C16)	08:05	15:50 (C15)		06:58	15:46 (C15)	06:35	05:21	04:31	20:27 (C13)						
	15:55	46	13:43 (C16)	16:56	11	16:01 (C15)	17:58	18	16:04 (C15)	20:03	21:06	21:59	35	21:02 (C13)			
7	08:48	12:57 (C16)	08:03	15:47 (C15)		06:55	15:51 (C15)	06:33	05:19	04:30	20:27 (C13)						
	15:56	46	13:43 (C16)	16:59	18	16:05 (C15)	18:00	7	15:58 (C15)	20:05	21:08	22:00	35	21:02 (C13)			
8	08:47	12:57 (C16)	08:00	15:45 (C15)		06:53		06:30	05:17	04:29	20:28 (C13)						
	15:58	46	13:43 (C16)	17:01	23	16:08 (C15)	18:03		21:10	22:01	35	21:03 (C13)					
9	08:47	12:58 (C16)	07:58	15:42 (C15)		06:50		06:27	05:15	04:29	20:27 (C13)						
	15:59	46	13:44 (C16)	17:03	27	16:09 (C15)	18:05		21:12	22:02	36	21:03 (C13)					
10	08:46	12:58 (C16)	07:56	15:41 (C15)		06:47		17:27 (C14)	06:25	05:13	04:28	20:28 (C13)					
	16:01	46	13:44 (C16)	17:05	30	16:11 (C15)	18:07	9	17:36 (C14)	20:12	21:14	22:03	35	21:03 (C13)			
11	08:45	12:59 (C16)	07:54	15:39 (C15)		06:45		17:23 (C14)	06:22	05:10	04:27	20:27 (C13)					
	16:03	46	13:45 (C16)	17:08	33	16:12 (C15)	18:09	15	17:38 (C14)	20:14	21:16	22:04	36	21:03 (C13)			
12	08:44	12:58 (C16)	07:52	15:39 (C15)		06:42		17:22 (C14)	06:20	05:08	04:27	20:28 (C13)					
	16:04	46	13:44 (C16)	17:10	34	16:13 (C15)	18:11	19	17:41 (C14)	20:16	21:18	22:05	36	21:04 (C13)			
13	08:43	12:59 (C16)	07:49	15:38 (C15)		06:39		17:20 (C14)	06:17	05:06	04:26	20:28 (C13)					
	16:06	46	13:45 (C16)	17:12	37	16:15 (C15)	18:13	22	17:42 (C14)	20:18	21:20	22:06	36	21:04 (C13)			
14	08:42	13:00 (C16)	07:47	15:37 (C15)		06:37		17:18 (C14)	06:14	05:04	04:26	20:28 (C13)					
	16:08	46	13:46 (C16)	17:14	38	16:15 (C15)	18:15	24	17:42 (C14)	20:20	21:21	22:06	37	21:05 (C13)			
15	08:41	13:00 (C16)	07:45	15:36 (C15)		06:34		17:17 (C14)	06:12	05:03	04:26	20:28 (C13)					
	16:10	45	13:45 (C16)	17:17	40	16:16 (C15)	18:17	25	17:42 (C14)	20:22	21:23	22:07	36	21:04 (C13)			
16	08:40	13:01 (C16)	07:42	15:35 (C15)		06:31		17:17 (C14)	06:09	05:01	04:25	20:28 (C13)					
	16:12	45	13:46 (C16)	17:19	41	16:16 (C15)	18:20	26	17:43 (C14)	20:24	21:25	22:08	37	21:05 (C13)			
17	08:39	13:01 (C16)	07:40	15:35 (C15)		06:29		17:16 (C14)	06:07	04:59	04:25	20:28 (C13)					
	16:14	45	13:46 (C16)	17:21	42	16:17 (C15)	18:22	27	17:43 (C14)	20:26	21:27	22:08	37	21:05 (C13)			
18	08:37	13:02 (C16)	07:38	15:34 (C15)		06:26		17:15 (C14)	06:04	04:57	04:25	20:28 (C13)					
	16:16	44	13:46 (C16)	17:23	43	16:17 (C15)	18:24	27	17:42 (C14)	20:28	21:29	22:09	37	21:05 (C13)			
19	08:36	13:02 (C16)	07:35	15:35 (C15)		06:23		17:16 (C14)	06:02	04:55	04:25	20:28 (C13)					
	16:18	44	13:46 (C16)	17:25	43	16:18 (C15)	18:26	27	17:43 (C14)	20:30	21:31	22:09	37	21:05 (C13)			
20	08:35	13:02 (C16)	07:33	15:34 (C15)		06:21		17:15 (C14)	05:59	04:53	04:25	20:29 (C13)					
	16:20	44	13:46 (C16)	17:28	43	16:17 (C15)	18:28	27	17:42 (C14)	20:32	21:33	22:10	37	21:06 (C13)			
21	08:33	13:04 (C16)	07:31	15:34 (C15)		06:18		17:15 (C14)	05:57	04:52	04:25	20:30 (C13)					
	16:22	42	13:46 (C16)	17:30	44	16:18 (C15)	18:30	26	17:41 (C14)	20:35	21:35	22:10	37	21:07 (C13)			
22	08:32	13:04 (C16)	07:28	15:34 (C15)		06:15		17:16 (C14)	05:54	04:50	20:38 (C13)	04:25	20:30 (C13)				
	16:24	42	13:46 (C16)	17:32	43	16:17 (C15)	18:32	24	17:40 (C14)	20:37	21:36	9	20:47 (C13)	22:10	37	21:07 (C13)	
23	08:30	13:05 (C16)	07:26	15:35 (C15)		06:13		17:17 (C14)	05:52	04:48	20:36 (C13)	04:26	20:29 (C13)				
	16:26	41	13:46 (C16)	17:34	43	16:18 (C15)	18:34	22	17:39 (C14)	20:39	21:38	14	20:50 (C13)	22:10	37	21:06 (C13)	
24	08:29	13:06 (C16)	07:23	15:34 (C15)		06:10		17:18 (C14)	05:49	04:47	20:34 (C13)	04:26	20:29 (C13)				
	16:28	39	13:45 (C16)	17:37	43	16:17 (C15)	18:36	19	17:37 (C14)	20:41	21:40	18	20:52 (C13)	22:10	37	21:06 (C13)	
25	08:27	13:07 (C16)	07:21	15:34 (C15)		06:07		17:19 (C14)	05:47	04:45	20:33 (C13)	04:26	20:30 (C13)				
	16:30	38	13:45 (C16)	17:39	42	16:16 (C15)	18:38	15	17:34 (C14)	20:43	21:42	20	20:53 (C13)	22:10	37	21:07 (C13)	
26	08:25	13:09 (C16)	07:18	15:35 (C15)		06:05		17:22 (C14)	05:44	04:44	20:32 (C13)	04:27	20:30 (C13)				
	16:32	36	13:45 (C16)	17:41	41	16:16 (C15)	18:40	10	17:32 (C14)	20:45	21:43	23	20:55 (C13)	22:10	37	21:07 (C13)	
27	08:24	13:10 (C16)	07:16	15:35 (C15)		06:02			05:42	04:42	20:30 (C13)	04:27	20:31 (C13)				
	16:34	34	13:44 (C16)	17:43	40	16:15 (C15)	18:43		20:47	21:45	25	20:55 (C13)	22:10	36	21:07 (C13)		
28	08:22	13:11 (C16)	07:13	15:37 (C15)		05:59			05:40	04:41	20:30 (C13)	04:28	20:30 (C13)				
	16:36	32	13:43 (C16)	17:45	38	16:15 (C15)	18:45		20:49	21:46	26	20:56 (C13)	22:10	37	21:07 (C13)		
29	08:20	13:13 (C16)				06:57			05:37	04:40	20:29 (C13)	04:29	20:31 (C13)				
	16:39	29	13:42 (C16)			19:47			20:51	21:48	28	20:57 (C13)	22:10	37	21:08 (C13)		
30	08:18	13:14 (C16)				06:54			05:35	04:38	20:29 (C13)	04:29	20:32 (C13)				
	16:41	26	13:40 (C16)			19:49			20:53	21:49	29	20:58 (C13)	22:09	36	21:08 (C13)		
31	08:16	13:16 (C16)				06:51				04:37	20:29 (C13)						
	16:43	22	13:38 (C16)			19:51				21:51	30	20:59 (C13)					
Potential sun hours	235		266			366			426		508				528		
Total, worst case	1290		862			541					222				1072		
Sun reduction	0.13		0.20			0.41					0.57				0.56		
Oper. time red.	0.98		0.98			0.98					0.98				0.98		
Wind dir. red.	0.63		0.67			0.66					0.62				0.62		
Total reduction	0.08		0.13			0.27					0.35				0.34		
Total, real	107		114			144					77				364		

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

July		August		September		October		November		December	
1	04:30	20:31 (C13)	05:16	06:17		07:17	18:00 (C14)	07:22	15:11 (C15)	08:24	12:41 (C16)
	22:09	36	21:07 (C13)	21:28	20:14		18:54	20	18:20 (C14)	16:36	29
2	04:31	20:32 (C13)	05:18	06:19		07:19	18:01 (C14)	07:25	15:12 (C15)	08:26	12:40 (C16)
	22:08	36	21:08 (C13)	21:26	20:11		18:51	17	18:18 (C14)	16:34	26
3	04:32	20:32 (C13)	05:19	06:21		07:21	18:03 (C14)	07:27	15:15 (C15)	08:27	12:41 (C16)
	22:08	36	21:08 (C13)	21:24	20:09		18:48	13	18:16 (C14)	16:32	22
4	04:33	20:33 (C13)	05:21	06:23		07:23		07:29	15:17 (C15)	08:29	12:41 (C16)
	22:07	35	21:08 (C13)	21:21	20:06		18:46		16:29	17	15:34 (C15)
5	04:34	20:33 (C13)	05:23	06:25		07:25		07:31	15:20 (C15)	08:31	12:42 (C16)
	22:07	35	21:08 (C13)	21:19	20:03		18:43		16:27	10	15:30 (C15)
6	04:35	20:34 (C13)	05:25	06:27		07:27		07:33		08:32	12:43 (C16)
	22:06	34	21:08 (C13)	21:17	20:01		18:40		16:25		15:41
7	04:36	20:34 (C13)	05:27	06:29		07:29	16:24 (C15)	07:35		08:34	12:43 (C16)
	22:05	34	21:08 (C13)	21:15	19:58		18:38	13	16:37 (C15)	16:23	15:40
8	04:37	20:34 (C13)	05:29	06:31		07:31	16:19 (C15)	07:38		08:35	12:44 (C16)
	22:04	34	21:08 (C13)	21:13	19:55		18:35	21	16:40 (C15)	16:21	15:40
9	04:38	20:35 (C13)	05:31	06:33		07:34	16:16 (C15)	07:40	12:54 (C16)	08:36	12:44 (C16)
	22:03	33	21:08 (C13)	21:11	19:53		18:32	26	16:42 (C15)	16:19	9
10	04:39	20:35 (C13)	05:33	06:35		07:36	16:15 (C15)	07:42	12:49 (C16)	08:38	12:45 (C16)
	22:02	32	21:07 (C13)	21:08	19:50		18:30	29	16:44 (C15)	16:17	18
11	04:41	20:36 (C13)	05:35	06:37		07:38	16:13 (C15)	07:44	12:48 (C16)	08:39	12:45 (C16)
	22:01	31	21:07 (C13)	21:06	19:47		18:27	32	16:45 (C15)	16:15	22
12	04:42	20:37 (C13)	05:37	06:39		07:40	16:11 (C15)	07:46	12:45 (C16)	08:40	12:45 (C16)
	22:00	30	21:07 (C13)	21:04	19:45		18:25	35	16:46 (C15)	16:13	27
13	04:43	20:37 (C13)	05:39	06:41		07:42	16:10 (C15)	07:48	12:45 (C16)	08:41	12:46 (C16)
	21:59	30	21:07 (C13)	21:01	19:42		18:22	37	16:47 (C15)	16:11	29
14	04:45	20:38 (C13)	05:41	06:43		07:44	16:08 (C15)	07:51	12:43 (C16)	08:42	12:47 (C16)
	21:58	28	21:06 (C13)	20:59	19:39		18:19	39	16:47 (C15)	16:09	32
15	04:46	20:38 (C13)	05:43	06:45		07:46	16:08 (C15)	07:53	12:42 (C16)	08:44	12:47 (C16)
	21:56	27	21:05 (C13)	20:57	19:37		18:17	40	16:48 (C15)	16:08	34
16	04:48	20:40 (C13)	05:45	06:47		07:48	16:07 (C15)	07:55	12:42 (C16)	08:44	12:47 (C16)
	21:55	25	21:05 (C13)	20:54	19:34		18:14	41	16:48 (C15)	16:06	36
17	04:49	20:40 (C13)	05:47	06:49		07:50	16:06 (C15)	07:57	12:41 (C16)	08:45	12:48 (C16)
	21:54	24	21:04 (C13)	20:52	19:31	7	18:12 (C14)	18:12	16:48 (C15)	16:04	37
18	04:51	20:42 (C13)	05:49	06:51		07:52	16:05 (C15)	07:59	12:40 (C16)	08:46	12:49 (C16)
	21:52	22	21:04 (C13)	20:49	19:28	14	18:22 (C14)	18:09	16:48 (C15)	16:02	39
19	04:52	20:43 (C13)	05:51	06:53		07:54	18:06 (C14)	07:54	16:05 (C15)	08:01	12:40 (C16)
	21:51	19	21:02 (C13)	20:47	19:26	18	18:24 (C14)	18:07	16:48 (C15)	16:01	41
20	04:54	20:45 (C13)	05:53	06:55		07:57	18:03 (C14)	07:57	16:05 (C15)	08:03	12:39 (C16)
	21:49	16	21:01 (C13)	20:44	19:23	21	18:24 (C14)	18:04	16:49 (C15)	15:59	42
21	04:56	20:46 (C13)	05:55	06:57		07:59	18:01 (C14)	07:59	16:05 (C15)	08:05	12:39 (C16)
	21:48	13	20:59 (C13)	20:42	19:20	24	18:25 (C14)	18:02	16:48 (C15)	15:58	42
22	04:57	20:50 (C13)	05:57	06:59		08:01	18:00 (C14)	08:01	16:04 (C15)	08:07	12:40 (C16)
	21:46	6	20:56 (C13)	20:40	19:18	25	18:25 (C14)	17:59	16:48 (C15)	15:56	43
23	04:59		05:59	07:01		08:03	17:59 (C14)	08:03	16:05 (C15)	08:09	12:39 (C16)
	21:44		20:37	19:15	26	18:25 (C14)	17:57	43	16:48 (C15)	15:55	44
24	05:01		06:01	07:03		08:05	17:59 (C14)	08:05	16:05 (C15)	08:11	12:39 (C16)
	21:43		20:34	19:12	26	18:25 (C14)	17:55	42	16:47 (C15)	15:53	44
25	05:03		06:03	07:05		08:07	17:58 (C14)	07:07	15:05 (C15)	08:13	12:39 (C16)
	21:41		20:32	19:10	27	18:25 (C14)	16:52	41	15:46 (C15)	15:52	45
26	05:04		06:05	07:07		08:09	17:58 (C14)	07:09	15:06 (C15)	08:15	12:39 (C16)
	21:39		20:29	19:07	27	18:25 (C14)	16:50	40	15:46 (C15)	15:51	45
27	05:06		06:07	07:09		08:11	17:58 (C14)	07:12	15:06 (C15)	08:17	12:39 (C16)
	21:37		20:27	19:04	26	18:24 (C14)	16:47	39	15:45 (C15)	15:49	45
28	05:08		06:09	07:11		08:13	17:58 (C14)	07:14	15:06 (C15)	08:19	12:40 (C16)
	21:36		20:24	19:02	25	18:23 (C14)	16:45	38	15:44 (C15)	15:48	46
29	05:10		06:11	07:13		08:15	17:59 (C14)	07:16	15:08 (C15)	08:20	12:40 (C16)
	21:34		20:22	18:59	24	18:23 (C14)	16:43	36	15:44 (C15)	15:47	46
30	05:12		06:13	07:15		08:17	17:59 (C14)	07:18	15:08 (C15)	08:22	12:41 (C16)
	21:32		20:19	18:56	23	18:22 (C14)	16:40	35	15:43 (C15)	15:46	46
31	05:14		06:15			08:19		07:20	15:09 (C15)		08:51
	21:30		20:16			16:38	32	15:41 (C15)		15:47	45
Potential sun hours	529		469	385		324		247		216	
Total, worst case		616		313		968		916		1398	
Sun reduction		0.49		0.43		0.26		0.08		0.07	
Oper. time red.		0.98		0.98		0.98		0.98		0.98	
Wind dir. red.		0.62		0.66		0.67		0.64		0.63	
Total reduction		0.30		0.28		0.17		0.05		0.04	
Total, real		185		86		164		47		61	

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	06:17 18:54	07:23 16:36	08:29 (C13) 15:45
2	08:50 15:49	08:13 16:47	09:04 (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	08:29 (C13) 15:44
3	08:50 15:51	08:11 16:50	09:03 (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	07:21 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	09:02 (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 15:42
5	08:49 15:53	08:07 16:54	09:02 (C13) 17:56	07:01 19:59	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	08:30 (C13) 15:42
6	08:49 15:55	08:05 16:56	09:00 (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 15:41
7	08:48 15:56	08:03 16:59	09:00 (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	09:00 (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	08:59 (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	08:35 (C13) 15:39
10	08:46 16:01	07:56 17:05	08:59 (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	08:37 (C13) 15:39
11	08:45 16:03	07:54 17:08	08:59 (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	08:38 (C13) 15:38
12	08:44 16:05	07:52 17:10	08:58 (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	08:59 (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	08:41 (C13) 15:38
14	08:42 16:08	07:47 17:14	08:58 (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	08:59 (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 18:04	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	09:01 (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	09:01 (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	09:03 (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	09:04 (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	09:06 (C13) 18:38	06:07 20:43	05:47 21:42	04:45 22:10	04:26 21:41	05:03 20:32	06:03 19:10	07:05 17:52	08:07 16:00	08:50 (C13) 15:41
26	08:26 16:32	07:18 17:41	09:08 (C13) 18:41	06:05 20:45	05:44 21:43	04:44 22:10	04:27 21:39	05:05 20:30	06:05 19:07	07:07 17:50	08:09 16:00	08:51 (C13) 15:42
27	08:24 16:34	07:16 17:43	09:11 (C13) 18:43	06:02 20:47	05:42 21:45	04:42 22:10	04:27 21:38	05:06 20:27	06:07 19:04	07:09 17:47	08:10 16:00	08:51 (C13) 15:43
28	08:22 16:36	07:13 17:45	09:23 (C13) 18:45	06:00 20:49	05:40 21:47	04:41 22:10	04:28 21:36	05:08 20:24	06:09 19:02	07:11 17:45	08:11 16:00	08:51 (C13) 15:44
29	08:20 16:39	07:11 17:49	09:24 (C13) 18:47	05:59 20:51	05:39 21:48	04:40 22:10	04:29 21:34	05:10 20:22	06:11 18:59	07:13 17:43	08:12 16:00	08:51 (C13) 15:45
30	08:18 16:41	07:09 17:59	09:25 (C13) 18:49	05:57 20:53	05:37 21:50	04:39 22:09	04:29 21:32	05:12 20:19	06:13 18:56	07:15 17:41	08:13 16:00	08:51 (C13) 15:46
31	08:17 16:43	07:08 17:59	09:26 (C13) 18:51	05:56 20:51	05:36 21:51	04:38 22:07	04:28 21:30	05:14 20:17	06:15 18:38	07:16 17:40	08:14 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	50	927								600	390	
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	4	108								89	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:
09/04/2024 19:14/4.0.531

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
442 466 539 464 488 781 784 938 1,215 1,079 833 556 8,584
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	15:34 (C3) 17:47	07:10 19:53	06:48 20:55	05:32 21:52	04:35 22:09	04:29 21:28	05:15 20:14	06:17 18:53	07:17 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	15:35 (C3) 17:49	07:08 19:55	06:46 20:57	05:30 21:54	04:34 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	15:36 (C3) 17:51	07:05 19:57	06:43 20:59	05:27 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	15:12 (C3) 15:19 (C3)
4	08:49 15:51	08:08 16:51	15:36 (C3) 17:54	07:03 19:59	06:40 21:01	05:25 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	15:10 (C3) 15:22 (C3)
5	08:49 15:53	08:06 16:54	15:37 (C3) 17:56	07:00 19:57	06:38 21:03	05:23 21:58	04:31 22:06	05:23 21:19	06:25 20:03	07:25 18:42	07:31 16:27	15:08 (C3) 15:23 (C3)
6	08:49 15:54	08:04 16:56	15:38 (C3) 17:58	06:57 19:58	06:35 21:05	05:21 21:59	04:30 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	15:07 (C3) 15:25 (C3)
7	08:48 15:56	08:02 16:58	15:40 (C3) 18:00	06:55 20:05	06:32 21:07	05:18 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:22	15:06 (C3) 15:25 (C3)
8	08:47 15:57	08:00 17:00	15:43 (C3) 18:02	06:52 20:07	06:30 21:09	05:16 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:20	15:05 (C3) 15:26 (C3)
9	08:47 15:59	07:58 17:03	15:48 (C3) 18:04	06:50 20:09	06:27 21:11	05:14 22:02	04:37 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:18	15:05 (C3) 15:27 (C3)
10	08:46 16:00	07:56 17:05	18:04 18:06	06:47 20:11	06:24 21:13	05:12 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	15:05 (C3) 15:27 (C3)
11	08:45 16:02	07:54 17:07	18:06 18:09	06:44 20:13	06:22 21:15	05:10 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	15:05 (C3) 15:28 (C3)
12	08:44 16:04	07:51 17:09	18:09 18:11	06:42 20:15	06:19 21:17	05:08 22:05	04:41 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	15:05 (C3) 15:27 (C3)
13	08:43 16:06	07:49 17:12	18:11 18:13	06:39 20:18	06:17 21:19	05:06 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	15:05 (C3) 15:27 (C3)
14	08:42 16:07	07:47 17:14	18:13 18:15	06:36 20:20	06:14 21:21	05:04 22:06	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	15:06 (C3) 15:28 (C3)
15	08:41 16:09	07:45 17:16	18:15 18:17	06:34 20:22	06:11 21:23	05:02 22:07	04:45 21:56	05:43 20:56	06:45 19:36	07:46 18:16	07:52 16:07	15:06 (C3) 15:27 (C3)
16	08:40 16:11	07:42 17:18	18:17 18:19	06:31 20:24	06:09 21:25	05:00 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	15:07 (C3) 15:28 (C3)
17	08:38 16:13	07:40 17:21	18:20 18:21	06:28 20:26	06:06 21:27	04:58 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:03	15:08 (C3) 15:26 (C3)
18	08:37 16:15	07:38 17:23	18:21 18:23	06:26 20:28	06:04 21:29	04:56 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	15:08 (C3) 15:24 (C3)
19	08:36 16:17	07:35 17:25	18:23 18:25	06:23 20:30	06:01 21:31	04:54 22:09	04:52 21:51	05:51 20:47	06:53 19:25	07:54 18:06	08:01 16:00	15:07 (C3) 15:23 (C3)
20	08:34 16:19	15:39 (C3) 17:27	07:33 18:28	06:20 20:32	05:59 21:33	04:53 22:09	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	15:11 (C3) 15:21 (C3)
21	08:33 16:21	15:40 (C3) 17:29	07:30 18:30	06:18 20:34	05:56 21:34	04:51 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	08:05 15:57	15:13 (C3) 15:19 (C3)
22	08:32 16:23	15:36 (C3) 17:32	07:28 18:32	06:15 20:36	05:54 21:36	04:49 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	15:15 (C3) 15:17 (C3)
23	08:30 16:25	15:35 (C3) 17:34	07:25 18:34	06:12 20:38	05:51 21:38	04:48 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:56	08:09 15:54	15:17 (C3) 15:39
24	08:28 16:27	15:34 (C3) 17:36	07:23 18:36	06:10 20:41	05:49 21:40	04:46 22:10	04:55 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	15:19 (C3) 15:40
25	08:27 16:29	15:33 (C3) 17:38	07:20 18:38	06:07 20:43	05:46 21:41	04:45 22:10	04:54 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	15:17 (C3) 15:41
26	08:25 16:32	15:32 (C3) 17:40	07:18 18:40	06:04 20:45	05:44 21:42	04:43 22:10	04:54 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	15:19 (C3) 15:41
27	08:24 16:34	15:33 (C3) 17:43	07:15 18:42	06:02 20:47	05:41 21:45	04:42 22:10	04:56 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	15:19 (C3) 15:42
28	08:22 16:36	15:33 (C3) 17:45	07:13 18:44	05:59 20:49	05:39 21:46	04:40 22:10	04:58 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:19 15:48	15:19 (C3) 15:43
29	08:20 16:38	15:33 (C3) 17:46	07:11 18:46	05:56 20:51	05:37 21:48	04:39 22:09	05:09 21:33	06:11 20:21	07:13 18:58	07:16 16:42	08:20 15:46	15:19 (C3) 15:44
30	08:18 16:40	15:33 (C3) 17:48	07:09 18:48	06:54 20:53	05:34 21:49	04:38 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	15:19 (C3) 15:45
31	08:16 16:42	15:34 (C3) 17:49	07:07 18:50	06:51 20:54	05:36 21:51	04:36 22:10	05:13 21:30	06:15 20:16	07:20 16:38	07:20 15:45	08:22 15:45	15:19 (C3) 15:45
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	192	133									331	
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	16	17									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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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 20:25	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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	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 15:49	08:50 15:43
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:40 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
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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
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Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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.												
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Total reduction												
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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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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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

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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
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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
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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
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Total, worst case												
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Table layout: For each day in each month the following matrix apply

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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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

	January	February	March	April	May	June	July	August	September	October	November	December
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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
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
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Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January	February	March	April	May	June	July	August	September	October	November	December
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Total, worst case												
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	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:

09/04/2024 19:14/4.0.531

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

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

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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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	04:40 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 20:29	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	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 22:11	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	08:08 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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	06:05 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	05:32 20:55	06:47 (C6) 21:52
2	08:50 15:49	08:13 16:47	07:08 17:50	16:37 (C13) 19:55	05:30 20:57	06:52 (C6) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	16:39 (C13) 19:57	05:28 20:59	06:54 (C6) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	16:40 (C13) 19:59	05:26 21:01	04:31 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	16:41 (C13) 20:01	05:23 21:04	04:32 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	16:53 (C13) 20:03	05:21 21:06	04:31 21:59
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
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
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 17:07	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	06:42 18:11	06:20 20:16	05:08 21:18	04:27 22:05
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
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
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
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
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	07:35 17:25	06:23 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 20:32	04:53 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	06:15 18:32	05:54 20:37	04:50 21:36	04:25 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 17:36	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	06:07 18:38	05:47 20:43	04:45 21:42	04:26 22:10
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
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
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
29	08:20 16:38	07:11 17:47	05:57 19:47	05:37 20:51	04:39 21:48	05:37 (C4) 22:10
30	08:18 16:41	07:09 17:49	05:54 19:49	05:35 20:53	04:38 21:50	05:35 (C4) 22:09
31	08:16 16:43	07:07 17:51	05:51 19:51	05:33 20:51	04:37 21:51	05:34 (C4) 22:09
Potential sun hours	235	266	366	426	508	529
Total, worst case		532	469	481	61	1019
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	0.37
Total, real		66	119	154	23	372

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)
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Mezares_AB211223

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:14/4.0.531

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	16:36 (C13) 19:53	06:49 20:55	05:32 06:53 (C6) 06:55 (C6)	04:36 21:52	05:32 (C4) 06:01 (C4)
2	08:50 15:49	08:13 16:47	07:08 17:50	16:36 (C13) 19:55	06:46 19:55	05:30 20:57	04:35 21:54	05:32 (C4) 06:02 (C4)
3	08:50 15:51	08:11 16:50	07:06 17:52	16:38 (C13) 19:57	06:43 19:57	05:28 20:59	04:34 21:55	05:31 (C4) 06:02 (C4)
4	08:50 15:52	08:09 16:52	07:03 17:54	16:39 (C13) 19:59	06:41 19:59	05:26 21:01	04:33 21:56	05:30 (C4) 06:03 (C4)
5	08:49 15:53	08:07 16:54	07:00 17:56	16:41 (C13) 20:01	06:38 20:01	05:23 21:04	04:32 21:58	05:31 (C4) 06:04 (C4)
6	08:49 15:55	08:05 16:56	06:58 17:58	16:50 (C13) 20:03	06:35 20:03	05:21 21:06	04:31 21:59	05:30 (C4) 06:05 (C4)
7	08:48 15:56	08:03 16:58	08:34 (C10) 18:00	06:55 18:00	05:19 21:08	05:19 21:08	04:30 22:00	05:29 (C4) 06:05 (C4)
8	08:47 15:58	08:00 17:01	08:30 (C10) 18:03	06:53 20:07	05:17 21:10	05:17 21:10	04:29 22:01	05:30 (C4) 06:06 (C4)
9	08:47 15:59	07:58 17:03	08:27 (C10) 18:05	06:50 20:10	05:15 21:12	05:15 21:12	04:28 22:02	05:29 (C4) 06:06 (C4)
10	08:46 16:01	07:56 17:05	08:26 (C10) 18:07	06:47 20:12	05:12 21:14	06:57 (C6) 07:01 (C6)	04:28 22:03	05:30 (C4) 06:07 (C4)
11	08:45 16:03	07:54 17:07	08:24 (C10) 18:09	06:45 20:14	05:10 21:16	06:53 (C6) 07:06 (C6)	04:27 22:04	05:29 (C4) 06:07 (C4)
12	08:44 16:04	07:52 17:10	08:24 (C10) 18:11	06:42 20:16	05:08 21:18	06:50 (C6) 07:07 (C6)	04:27 22:05	05:29 (C4) 06:08 (C4)
13	08:43 16:06	07:49 17:12	08:24 (C10) 18:13	06:39 20:18	05:06 21:20	06:48 (C6) 07:09 (C6)	04:26 22:06	05:29 (C4) 06:08 (C4)
14	08:42 16:08	07:47 17:14	08:23 (C10) 18:15	06:37 20:20	05:04 21:22	06:46 (C6) 07:10 (C6)	04:26 22:07	05:29 (C4) 06:08 (C4)
15	08:41 16:10	07:45 17:16	08:23 (C10) 18:17	06:34 20:22	05:02 21:23	06:45 (C6) 07:11 (C6)	04:26 22:07	05:29 (C4) 06:09 (C4)
16	08:40 16:12	07:42 17:19	08:23 (C10) 18:19	06:31 20:24	05:00 21:25	06:44 (C6) 07:11 (C6)	04:25 22:08	05:29 (C4) 06:09 (C4)
17	08:39 16:14	07:40 17:21	08:23 (C10) 18:22	06:29 20:26	04:59 21:27	06:44 (C6) 07:12 (C6)	04:25 22:08	05:29 (C4) 06:09 (C4)
18	08:37 16:16	07:38 17:23	08:23 (C10) 18:24	06:26 20:28	04:57 21:29	06:42 (C6) 07:11 (C6)	04:25 22:09	05:30 (C4) 06:10 (C4)
19	08:36 16:18	07:35 17:25	08:24 (C10) 18:26	06:23 20:30	04:55 21:31	06:42 (C6) 07:12 (C6)	04:25 22:09	05:30 (C4) 06:10 (C4)
20	08:35 16:20	07:33 17:28	08:24 (C10) 18:28	06:21 20:32	04:53 21:33	06:41 (C6) 07:11 (C6)	04:25 22:10	05:30 (C4) 06:10 (C4)
21	08:33 16:22	07:31 17:30	08:26 (C10) 18:30	06:18 20:35	04:52 21:35	06:42 (C6) 07:11 (C6)	04:25 22:10	05:30 (C4) 06:10 (C4)
22	08:32 16:24	07:28 17:32	08:26 (C10) 18:32	06:15 20:37	04:50 21:36	06:42 (C6) 07:11 (C6)	04:25 22:10	05:31 (C4) 06:11 (C4)
23	08:30 16:26	07:26 17:34	08:29 (C10) 18:34	06:13 20:39	04:48 21:38	06:42 (C6) 07:10 (C6)	04:26 22:10	05:31 (C4) 06:11 (C4)
24	08:29 16:28	07:23 17:36	16:35 (C13) 18:36	06:10 20:41	04:47 21:40	06:42 (C6) 07:09 (C6)	04:26 22:10	05:31 (C4) 06:11 (C4)
25	08:27 16:30	07:21 17:39	16:35 (C13) 18:38	06:07 20:43	04:45 21:42	06:43 (C6) 07:09 (C6)	04:26 22:10	05:31 (C4) 06:11 (C4)
26	08:25 16:32	07:18 17:41	16:35 (C13) 18:40	06:05 20:45	04:44 21:43	06:43 (C6) 07:07 (C6)	04:27 22:10	05:31 (C4) 06:11 (C4)
27	08:24 16:34	07:16 17:43	16:35 (C13) 18:42	06:02 20:47	04:42 21:45	06:44 (C6) 07:06 (C6)	04:27 22:10	05:32 (C4) 06:12 (C4)
28	08:22 16:36	07:13 17:45	16:36 (C13) 18:45	05:59 20:49	04:41 21:46	06:45 (C6) 07:05 (C6)	04:28 22:10	05:32 (C4) 06:11 (C4)
29	08:20 16:38		16:59 (C13) 19:47	05:57 20:51	04:39 21:48	06:46 (C6) 07:02 (C6)	04:28 22:10	05:33 (C4) 06:12 (C4)
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:50	06:48 (C6) 07:00 (C6)	04:29 22:09	05:33 (C4) 06:12 (C4)
31	08:16 16:43		06:51 19:51		04:37 21:51	05:33 (C4) 06:00 (C4)		
Potential sun hours	235	266	366	426	508		529	
Total, worst case		539	456	482	123		1129	
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	115	154	46		413	

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

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Calculated:

09/04/2024 19:14/4.0.531

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Shadow receptor: Pludmales 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (117)

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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July			August			September			October			November			December		
1	04:30	05:33 (C4)	05:16				06:17		06:52 (C6)	07:17		07:52 (C8)	07:22		07:56 (C10)	08:24		
	22:09	38	06:11 (C4)	21:28			20:14	13	07:05 (C6)	18:53	24	08:16 (C8)	16:36	17	08:13 (C10)	15:45		
2	04:31	05:34 (C4)	05:17				06:19		06:56 (C6)	07:19		07:53 (C8)	07:25		07:57 (C10)	08:26		
	22:08	37	06:11 (C4)	21:26			20:11	4	07:00 (C6)	18:51	22	08:15 (C8)	16:34	14	08:11 (C10)	15:44		
3	04:32	05:34 (C4)	05:19				06:21			07:21		07:54 (C8)	07:27		08:00 (C10)	08:27		
	22:08	38	06:12 (C4)	21:24			20:09			18:48	19	08:13 (C8)	16:31	10	08:10 (C10)	15:43		
4	04:32	05:35 (C4)	05:21				06:23			07:23		07:56 (C8)	07:29			08:29		
	22:07	37	06:12 (C4)	21:22			20:06			18:45	14	08:10 (C8)	16:29			15:42		
5	04:33	05:36 (C4)	05:23				06:25			07:25		07:58 (C8)	07:31			08:31		
	22:07	35	06:11 (C4)	21:19			20:03			18:43	9	08:07 (C8)	16:27			15:41		
6	04:35	05:36 (C4)	05:25				06:27			07:27			07:33			08:32		
	22:06	35	06:11 (C4)	21:17			20:01			18:40			16:25			15:41		
7	04:36	05:37 (C4)	05:27				06:29			07:29			07:35			08:34		
	22:05	34	06:11 (C4)	21:15			19:58			18:38			16:23			15:40		
8	04:37	05:37 (C4)	05:29				06:31			07:31		17:20 (C13)	07:38			08:35		
	22:04	34	06:11 (C4)	21:13			19:55			18:35	2	17:22 (C13)	16:21			15:40		
9	04:38	05:38 (C4)	05:31				06:33			07:34		17:15 (C13)	07:40			08:36		
	22:03	32	06:10 (C4)	21:11			19:53			18:32	11	17:26 (C13)	16:19			15:39		
10	04:39	05:39 (C4)	05:33				06:35			07:36		17:13 (C13)	07:42			08:38		
	22:02	30	06:09 (C4)	21:08			19:50			18:30	16	17:29 (C13)	16:17			15:39		
11	04:41	05:39 (C4)	05:35				06:37			07:38		17:11 (C13)	07:44			08:39		
	22:01	30	06:09 (C4)	21:06			19:47			18:27	19	17:30 (C13)	16:15			15:38		
12	04:42	05:40 (C4)	05:37			06:59 (C6)	06:39			07:40		17:10 (C13)	07:46			08:40		
	22:00	28	06:08 (C4)	21:04	7		19:45			18:25	21	17:31 (C13)	16:13			15:38		
13	04:43	05:42 (C4)	05:39			06:56 (C6)	06:41			07:42		17:08 (C13)	07:48			08:41		
	21:59	26	06:08 (C4)	21:01	13	07:09 (C6)	19:42			18:22	23	17:31 (C13)	16:11			15:38		
14	04:45	05:43 (C4)	05:41			06:54 (C6)	06:43			07:44		17:07 (C13)	07:51			08:43		
	21:58	23	06:06 (C4)	20:59	17	07:11 (C6)	19:39			18:19	24	17:31 (C13)	16:09			15:38		
15	04:46	05:44 (C4)	05:43			06:52 (C6)	06:45			07:46		17:08 (C13)	07:53			08:44		
	21:56	21	06:05 (C4)	20:57	21	07:13 (C6)	19:37			18:17	24	17:32 (C13)	16:07			15:38		
16	04:48	05:46 (C4)	05:45			06:51 (C6)	06:47			07:48		17:07 (C13)	07:55			08:45		
	21:55	18	06:04 (C4)	20:54	23	07:14 (C6)	19:34			18:14	24	17:31 (C13)	16:06			15:38		
17	04:49	05:48 (C4)	05:47			06:49 (C6)	06:49			07:50		17:07 (C13)	07:57			08:45		
	21:54	14	06:02 (C4)	20:52	25	07:14 (C6)	19:31			18:12	24	17:31 (C13)	16:04			15:38		
18	04:51	05:52 (C4)	05:49			06:48 (C6)	06:51		08:06 (C8)	07:52		09:02 (C10)	07:59			08:46		
	21:52	7	05:59 (C4)	20:49	27	07:15 (C6)	19:28	6	08:12 (C8)	18:09	30	17:30 (C13)	16:02			15:38		
19	04:52		05:51			06:48 (C6)	06:53		08:00 (C8)	07:54		08:58 (C10)	08:01			08:47		
	21:51		20:47	27		07:15 (C6)	19:26	14	08:14 (C8)	18:07	35	17:29 (C13)	16:01			15:38		
20	04:54		05:53			06:47 (C6)	06:55		07:58 (C8)	07:57		08:57 (C10)	08:03			08:48		
	21:49		20:45	28		07:15 (C6)	19:23	18	08:16 (C8)	18:04	38	17:29 (C13)	15:59			15:38		
21	04:56		05:55			06:47 (C6)	06:57		07:56 (C8)	07:59		08:55 (C10)	08:05			08:48		
	21:48		20:42	29		07:16 (C6)	19:20	21	08:17 (C8)	18:02	39	17:28 (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	30		07:16 (C6)	19:18	23	08:18 (C8)	17:59	37	17:26 (C13)	15:56			15:39		
23	04:59		05:59			06:46 (C6)	07:01		07:54 (C8)	08:03		08:54 (C10)	08:09			08:49		
	21:44		20:37	30		07:16 (C6)	19:15	25	08:19 (C8)	17:57	34	17:24 (C13)	15:55			15:40		
24	05:01		06:01			06:46 (C6)	07:03		07:53 (C8)	08:05		08:53 (C10)	08:11			08:50		
	21:43		20:34	29		07:15 (C6)	19:12	26	08:19 (C8)	17:54	29	17:20 (C13)	15:53			15:40		
25	05:03		06:03			06:45 (C6)	07:05		07:52 (C8)	07:07		07:52 (C10)	08:13			08:50		
	21:41		20:32	29		07:14 (C6)	19:10	27	08:19 (C8)	16:52	24	08:16 (C10)	15:52			15:41		
26	05:04		06:05			06:45 (C6)	07:07		07:51 (C8)	07:09		07:53 (C10)	08:15			08:50		
	21:39		20:29	28		07:13 (C6)	19:07	28	08:19 (C8)	16:50	24	08:17 (C10)	15:51			15:42		
27	05:06		06:07			06:46 (C6)	07:09		07:51 (C8)	07:12		07:53 (C10)	08:17			08:51		
	21:37		20:27	27		07:13 (C6)	19:04	27	08:18 (C8)	16:47	23	08:16 (C10)	15:49			15:43		
28	05:08		06:09			06:46 (C6)	07:11		07:51 (C8)	07:14		07:52 (C10)	08:19			08:51		
	21:36		20:24	26		07:12 (C6)	19:02	27	08:18 (C8)	16:45	24	08:16 (C10)	15:48			15:44		
29	05:10		06:11			06:47 (C6)	07:13		07:52 (C8)	07:16		07:53 (C10)	08:21			08:51		
	21:34		20:22	24		07:11 (C6)	18:59	26	08:18 (C8)	16:43	23	08:16 (C10)	15:47			15:44		
30	05:12		06:13			06:48 (C6)	07:15		07:52 (C8)	07:18		07:54 (C10)	08:22			08:51		
	21:32		20:19	21		07:09 (C6)	18:56	25	08:17 (C8)	16:40	21	08:15 (C10)	15:46			15:45		
31	05:14		06:15			06:49 (C6)				07:20		07:54 (C10)				08:51		
	21:30		20:16	18		07:07 (C6)				16:38	20	08:14 (C10)				15:47		
Potential sun hours	529		469				385			324			247			216		
Total, worst case		517		479			310			677			41					
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			0.62			0.64			0.62					
Total reduction		0.32		0.32			0.26			0.16			0.05					
Total, real		167		153			80			109			2					

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)
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Project:

Mezares_AB211223

Licensed user:

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LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

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Shadow receptor: Polakas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (52)

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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
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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		07:21 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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		07:21 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
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Oper. time red.												
Wind dir. red.												
Total reduction												
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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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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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Potential sun hours	235	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
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Oper. time red.												
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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:

09/04/2024 19:14/4.0.531

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
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Operational time

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

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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
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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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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Total, worst case												
Sun reduction												
Oper. time red.												
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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:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
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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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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) 07:25 (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) 07:26 (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) 07:26 (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) 07:29 (C14)	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:02 (C14) 07:26 (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	07:05 (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) 07:26 (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	07:05 (C14) 07:29 (C14)	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:01 (C14) 07:25 (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	07:00 (C14) 07:24 (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	07:05 (C14) 07:29 (C14)	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:01 (C14) 07:23 (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) 07:28 (C14)	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:02 (C14) 07:22 (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) 07:27 (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) 07:26 (C14)	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:06 (C14) 07:18 (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) 07:24 (C14)	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:08 (C14) 07:16 (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	07:06 (C14) 07:23 (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 17:15	06:37 18:16		06:15 20:20	07:08 (C14) 07:21 (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	07:11 (C14) 07:18 (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	07:18 (C14) 07:25 (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	07:26 (C14) 07:33 (C14)	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	07:34 (C14) 07:41 (C14)	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	07:42 (C14) 07:49 (C14)	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	07:50 (C14) 07:57 (C14)	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	07:58 (C14) 08:05 (C14)	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	08:12 (C14) 08:19 (C14)	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	08:26 (C14) 08:33 (C14)	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	08:34 (C14) 08:41 (C14)	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	08:42 (C14) 08:49 (C14)	04:45 21:42	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	08:26 16:32	07:18 17:41	06:05 18:41		05:45 20:45	08:50 (C14) 08:57 (C14)	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	09:04 (C14) 09:11 (C14)	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 17:45	06:00 18:45		05:40 20:49	09:12 (C14) 09:19 (C14)	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	7 07:11 (C14) 8 07:19 (C14)	07:11 19:02	07:14 16:45	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	09:24 (C14) 09:31 (C14)	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	14 07:08 (C14) 14 07:22 (C14)	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:10 17:49	05:54 18:49		05:35 20:53	09:36 (C14) 09:43 (C14)	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	17 07:06 (C14) 17 07:23 (C14)	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:08 17:51	05:52 18:52	07:17 (C14) 07:24 (C14)	07:24 (C14) 07:31 (C14)	09:48 (C14) 09:55 (C14)	04:37 21:51	04:30 22:10	05:14 21:30	06:15 20:17	19 07:05 (C14) 19 07:24 (C14)	07:19 18:56	07:20 16:38	08:22 15:47	08:51 15:47
Potential sun hours	235	266	366		426		508	528	529	469		385	324	247	216
Total, worst case			7			289					58		243		
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			2			93				19		67			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April			May			June		
1	08:51		14:16 (C13)	08:15		14:21 (C13)	07:11		06:49				05:32		04:36			
	15:48	24	14:40 (C13)	16:45	34	14:55 (C13)	17:47		19:53				20:55		21:53			
2	08:50		14:16 (C13)	08:13		14:22 (C13)	07:08		06:46				05:30		04:35			
	15:49	26	14:42 (C13)	16:47	33	14:55 (C13)	17:50		19:55				20:57		21:54			
3	08:50		14:16 (C13)	08:11		14:24 (C13)	07:06		06:43				05:28		04:34			
	15:51	26	14:42 (C13)	16:50	30	14:54 (C13)	17:52		19:57				20:59		21:55			
4	08:50		14:16 (C13)	08:09		14:25 (C13)	07:03		06:41				05:26		04:33			
	15:52	27	14:43 (C13)	16:52	29	14:54 (C13)	17:54		19:59				21:02		21:57			
5	08:49		14:16 (C13)	08:07		14:27 (C13)	07:00		06:38				05:23		04:32			
	15:53	29	14:45 (C13)	16:54	26	14:53 (C13)	17:56		20:01				21:04		21:58			
6	08:49		14:16 (C13)	08:05		14:28 (C13)	06:58		06:35				05:21		04:31			
	15:55	29	14:45 (C13)	16:56	23	14:51 (C13)	17:58		20:03				21:06		21:59			
7	08:48		14:16 (C13)	08:03		14:31 (C13)	06:55		06:33				05:19		04:30			
	15:56	30	14:46 (C13)	16:59	18	14:49 (C13)	18:00		20:05				21:08		22:00			
8	08:47		14:16 (C13)	08:00		14:34 (C13)	06:53		06:30				05:17		04:29			
	15:58	31	14:47 (C13)	17:01	12	14:46 (C13)	18:03		20:07				21:10		22:01			
9	08:47		14:16 (C13)	07:58			06:50		06:27				05:15		04:28			
	15:59	32	14:48 (C13)	17:03			18:05		20:10		8	07:01 (C4)	21:12		22:02			
10	08:46		14:16 (C13)	07:56			06:47		06:25				06:50 (C4)		05:13		04:28	
	16:01	33	14:49 (C13)	17:05			18:07		20:12		13	07:03 (C4)	21:14		22:03			
11	08:45		14:16 (C13)	07:54			06:45		06:22				06:48 (C4)		05:10		04:27	
	16:03	34	14:50 (C13)	17:08			18:09		20:14		17	07:05 (C4)	21:16		22:04			
12	08:44		14:15 (C13)	07:52			06:42		06:20				06:45 (C4)		05:08		04:27	
	16:04	35	14:50 (C13)	17:10			18:11		20:16		20	07:05 (C4)	21:18		22:05			
13	08:43		14:15 (C13)	07:49			06:39		06:17				06:45 (C4)		05:06		04:26	
	16:06	36	14:51 (C13)	17:12			18:13		20:18		21	07:06 (C4)	21:20		22:06			
14	08:42		14:16 (C13)	07:47			06:37		06:14				06:44 (C4)		05:04		04:26	
	16:08	36	14:52 (C13)	17:14			18:15		20:20		22	07:06 (C4)	21:22		22:07			
15	08:41		14:15 (C13)	07:45			06:34		06:12				06:43 (C4)		05:02		04:26	
	16:10	37	14:52 (C13)	17:17			18:17		20:22		23	07:06 (C4)	21:24		22:07			
16	08:40		14:16 (C13)	07:43			06:31		06:09				06:43 (C4)		05:01		04:25	
	16:12	37	14:53 (C13)	17:19			18:20		20:24		23	07:06 (C4)	21:25		22:08			
17	08:39		14:15 (C13)	07:40			06:29		06:07				06:43 (C4)		04:59		04:25	
	16:14	38	14:53 (C13)	17:21			18:22		20:26		23	07:06 (C4)	21:27		22:08			
18	08:37		14:16 (C13)	07:38			06:26		06:04				06:42 (C4)		04:57		04:25	
	16:16	38	14:54 (C13)	17:23			18:24		20:28		23	07:05 (C4)	21:29		22:09			
19	08:36		14:16 (C13)	07:35			06:23		06:02				06:43 (C4)		04:55		04:25	
	16:18	38	14:54 (C13)	17:25			18:26		20:30		22	07:05 (C4)	21:31		22:09			
20	08:35		14:17 (C13)	07:33			06:21		05:59				06:43 (C4)		04:53		04:25	
	16:20	39	14:56 (C13)	17:28			18:28		20:32		20	07:03 (C4)	21:33		22:10			
21	08:33		14:16 (C13)	07:31			06:18		05:57				06:44 (C4)		04:52		04:25	
	16:22	40	14:56 (C13)	17:30			18:30		20:35		18	07:02 (C4)	21:35		22:10			
22	08:32		14:16 (C13)	07:28			06:15		05:54				06:45 (C4)		04:50		04:25	
	16:24	40	14:56 (C13)	17:32			18:32		20:37		16	07:01 (C4)	21:36		22:10			
23	08:30		14:16 (C13)	07:26			06:13		05:52				06:46 (C4)		04:48		04:26	
	16:26	40	14:56 (C13)	17:34			18:34		20:39		13	06:59 (C4)	21:38		22:10			
24	08:29		14:17 (C13)	07:23			06:10		05:49				06:48 (C4)		04:47		04:26	
	16:28	39	14:56 (C13)	17:37			18:36		20:41		8	06:56 (C4)	21:40		22:10			
25	08:27		14:18 (C13)	07:21			06:07		05:47						04:45		04:26	
	16:30	39	14:57 (C13)	17:39			18:38		20:43						21:42		22:10	
26	08:25		14:18 (C13)	07:18			06:05		05:44						04:44		04:27	
	16:32	39	14:57 (C13)	17:41			18:40		20:45						21:43		22:10	
27	08:24		14:19 (C13)	07:16			06:02		05:42						04:42		04:27	
	16:34	38	14:57 (C13)	17:43			18:43		20:47						21:45		22:10	
28	08:22		14:19 (C13)	07:13			05:59		05:39						04:41		04:28	
	16:36	38	14:57 (C13)	17:45			18:45		20:49						21:47		22:10	
29	08:20		14:20 (C13)				06:57		05:37						04:39		04:28	
	16:39	37	14:57 (C13)				19:47		20:51						21:48		22:10	
30	08:18		14:20 (C13)				06:54		05:35						04:38		04:29	
	16:41	37	14:57 (C13)				19:49		20:53						21:50		22:09	
31	08:17		14:20 (C13)				06:51								04:37			
	16:43	36	14:56 (C13)				19:51								21:51			
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1078			205					290									
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	94			27					94									

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	17 07:04 (C4)	18:54	16:36
2	04:31	05:17	06:19	06:49 (C4)	07:19	07:25
	22:08	21:26	20:11	13 07:02 (C4)	18:51	16:34
3	04:32	05:19	06:21	06:51 (C4)	07:21	14:03 (C13)
	22:08	21:24	20:09	8 06:59 (C4)	18:48	16:31
4	04:33	05:21	06:23	07:23	07:29	14:00 (C13)
	22:07	21:22	20:06	18:46	16:29	19 14:19 (C13)
5	04:34	05:23	06:25	07:25	07:31	13:57 (C13)
	22:07	21:19	20:03	18:43	16:27	23 14:20 (C13)
6	04:35	05:25	06:27	07:27	07:33	13:56 (C13)
	22:06	21:17	20:01	18:40	16:25	27 14:23 (C13)
7	04:36	05:27	06:29	07:29	07:36	13:55 (C13)
	22:05	21:15	19:58	18:38	16:23	29 14:24 (C13)
8	04:37	05:29	06:31	07:32	07:38	13:54 (C13)
	22:04	21:13	19:55	18:35	16:21	31 14:25 (C13)
9	04:38	05:31	06:33	07:34	07:40	13:53 (C13)
	22:03	21:11	19:53	18:32	16:19	33 14:26 (C13)
10	04:39	05:33	06:35	07:36	07:42	13:52 (C13)
	22:02	21:08	19:50	18:30	16:17	34 14:26 (C13)
11	04:41	05:35	06:37	07:38	07:44	13:52 (C13)
	22:01	21:06	19:47	18:27	16:15	36 14:28 (C13)
12	04:42	05:37	06:39	07:40	07:46	13:51 (C13)
	22:00	21:04	19:45	18:25	16:13	37 14:28 (C13)
13	04:43	05:39	06:41	07:42	07:49	13:52 (C13)
	21:59	21:01	19:42	18:22	16:11	37 14:29 (C13)
14	04:45	05:41	06:43	07:44	07:51	13:51 (C13)
	21:58	20:59	19:39	18:19	16:09	38 14:29 (C13)
15	04:46	05:43	06:45	07:46	07:53	13:50 (C13)
	21:57	20:57	19:37	18:17	16:08	39 14:29 (C13)
16	04:48	05:45	06:47	07:48	07:55	13:51 (C13)
	21:55	20:54	19:34	18:14	16:06	39 14:30 (C13)
17	04:49	05:47	06:49	07:50	07:57	13:51 (C13)
	21:54	20:52	19:31	18:12	16:04	39 14:30 (C13)
18	04:51	05:49	06:51	07:52	07:59	13:51 (C13)
	21:52	20:49	19:29	18:09	16:02	39 14:30 (C13)
19	04:52	05:51	06:53 (C4)	07:54	08:01	13:51 (C13)
	21:51	20:47	10 07:03 (C4)	18:07	16:01	40 14:31 (C13)
20	04:54	05:53	06:55 (C4)	07:57	08:03	13:51 (C13)
	21:49	20:45	14 07:05 (C4)	18:04	15:59	40 14:31 (C13)
21	04:56	05:55	06:57 (C4)	07:59	08:05	13:51 (C13)
	21:48	20:42	17 07:06 (C4)	18:02	15:58	40 14:31 (C13)
22	04:57	05:57	06:59 (C4)	08:01	08:07	13:53 (C13)
	21:46	20:40	19 07:07 (C4)	17:59	15:56	39 14:32 (C13)
23	04:59	05:59	07:01 (C4)	08:03	08:09	13:53 (C13)
	21:45	20:37	21 07:08 (C4)	17:57	15:55	38 14:31 (C13)
24	05:01	06:01	07:03 (C4)	08:05	08:11	13:53 (C13)
	21:43	20:35	22 07:08 (C4)	17:55	15:53	38 14:31 (C13)
25	05:03	06:03	07:05 (C4)	07:07	08:13	13:53 (C13)
	21:41	20:32	23 07:09 (C4)	16:52	15:52	38 14:31 (C13)
26	05:04	06:05	07:07 (C4)	07:09	08:15	13:54 (C13)
	21:39	20:29	23 07:08 (C4)	16:50	15:51	37 14:31 (C13)
27	05:06	06:07	07:09 (C4)	07:12	08:17	13:55 (C13)
	21:37	20:27	24 07:08 (C4)	16:47	15:49	37 14:32 (C13)
28	05:08	06:09	07:11 (C4)	07:14	08:19	13:56 (C13)
	21:36	20:24	23 07:07 (C4)	16:45	15:48	36 14:32 (C13)
29	05:10	06:11	07:13 (C4)	07:16	08:21	13:56 (C13)
	21:34	20:22	23 07:07 (C4)	16:43	15:47	36 14:32 (C13)
30	05:12	06:13	07:15 (C4)	07:18	08:22	13:57 (C13)
	21:32	20:19	21 07:06 (C4)	16:40	15:46	35 14:32 (C13)
31	05:14	06:15	07:17 (C4)	07:20		08:51
	21:30	20:17	20 07:05 (C4)	16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		260	38		967	738
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		84	10		52	34

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
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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	06:01 19:12	07:03 17:55	08:05 15:53	08:50 15:41
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	21:53	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	20:58	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	08:28
	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	07:23	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	05:26	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	08:48	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	08:42
	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	21:57	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	08:46
	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	07:53	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	04:25	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	15:39
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	21:38	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	07:14	08:19	08:51
	16:37	17:46	18:45	20:49	21:47	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	08:19		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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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 22:10	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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	08:51 15:49	08:13 16:47	09:19 (C13) 17:50	07:08 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	09:20 (C13) 17:52	07:06 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	09:22 (C13) 17:54	07:03 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	09:24 (C13) 17:56	07:01 19:59	05:23 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	09:27 (C13) 17:58	06:58 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	09:33 (C13) 17:58	06:55 20:03	05:19 21:06	04:30 21:59	04:36 22:06	05:27 21:17	06:29 20:01	07:30 18:40	07:36 16:25	08:34 15:41
8	08:48 15:58	08:01 17:01	09:33 (C13) 17:58	06:53 20:06	05:17 21:08	04:29 22:00	04:37 22:05	05:29 21:15	06:31 19:58	07:32 18:38	07:38 16:23	08:35 15:40
9	08:47 15:59	07:58 17:03	09:33 (C13) 17:58	06:50 20:08	05:15 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	09:33 (C13) 17:58	06:47 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	09:33 (C13) 17:58	06:45 20:12	05:11 21:14	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 15:39
12	08:44 16:05	07:52 17:10	09:33 (C13) 17:58	06:42 20:14	05:08 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:47	07:40 18:27	07:46 16:15	08:40 15:38
13	08:43 16:06	07:50 17:12	09:33 (C13) 17:58	06:40 20:16	05:06 21:18	04:26 22:05	04:43 22:00	05:39 21:04	06:41 19:45	07:42 18:25	07:49 16:13	08:42 15:38
14	08:42 16:08	07:47 17:14	09:33 (C13) 17:58	06:37 20:18	05:04 21:20	04:26 22:06	04:45 21:59	05:41 21:02	06:43 19:42	07:44 18:22	07:51 16:11	08:43 15:38
15	08:41 16:10	07:45 17:17	09:33 (C13) 17:58	06:34 20:20	05:03 21:22	04:26 22:07	04:46 21:58	05:43 20:59	06:45 19:39	07:46 18:20	07:53 16:09	08:44 15:38
16	08:40 16:12	07:43 17:19	09:33 (C13) 17:58	06:32 20:22	05:01 21:24	04:25 22:07	04:48 21:57	05:45 20:57	06:47 19:37	07:48 18:17	07:55 16:08	08:45 15:38
17	08:39 16:14	07:40 17:21	09:33 (C13) 17:58	06:29 20:24	04:59 21:26	04:25 22:08	04:49 21:55	05:47 20:54	06:49 19:34	07:50 18:14	07:57 16:06	08:46 15:38
18	08:38 16:16	07:38 17:23	09:33 (C13) 17:58	06:26 20:26	04:57 21:27	04:25 22:09	04:51 21:54	05:49 20:52	06:51 19:31	07:52 18:12	07:59 16:04	08:46 15:38
19	08:36 16:18	07:36 17:26	09:33 (C13) 17:58	06:24 20:28	04:55 21:29	04:25 22:09	04:52 21:53	05:51 20:50	06:53 19:29	07:55 18:09	08:01 16:02	08:47 15:38
20	08:35 16:20	07:33 17:28	09:33 (C13) 17:58	06:21 20:30	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	09:33 (C13) 17:58	06:18 20:32	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	09:33 (C13) 17:58	06:16 20:34	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	08:52 15:39
23	08:30 16:26	07:26 17:34	09:33 (C13) 17:58	06:13 20:36	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	09:33 (C13) 17:58	06:10 20:38	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	09:33 (C13) 17:58	06:08 20:40	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	08:50 15:41
26	08:26 16:32	07:18 17:41	09:33 (C13) 17:58	06:05 20:42	04:44 21:43	04:27 22:10	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	08:24 16:34	07:16 17:43	09:33 (C13) 17:58	06:02 20:44	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	09:33 (C13) 17:58	05:59 20:46	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	07:13 17:47	09:33 (C13) 17:58	05:57 20:48	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	07:13 17:49	09:33 (C13) 17:58	05:54 20:50	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	07:13 17:51	09:33 (C13) 17:58	05:51 20:51	04:37 21:51	04:29 22:09	05:14 21:30	06:15 20:17	07:17 18:38	08:20 17:20	08:25 16:38	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	411	98										
Sun reduction	0.13	0.20									513	
Oper. time red.	0.98	0.98									0.98	
Wind dir. red.	0.60	0.60									0.60	
Total reduction	0.08	0.12									0.05	
Total, real	32	11									25	

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:
09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	28	07:58 (C14) 08:26 (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	28	07:58 (C14) 08:26 (C14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	9	07:32 (C14) 07:41 (C14)	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	28	07:57 (C14) 08:25 (C14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	14	07:29 (C14) 07:43 (C14)	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	28	07:57 (C14) 08:25 (C14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	18	07:26 (C14) 07:44 (C14)	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	27	07:57 (C14) 08:24 (C14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	22	07:24 (C14) 07:46 (C14)	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	26	07:57 (C14) 08:23 (C14)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	24	07:22 (C14) 07:46 (C14)	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	24	07:58 (C14) 08:22 (C14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	26	07:20 (C14) 07:46 (C14)	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	20	08:00 (C14) 08:20 (C14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	27	07:20 (C14) 07:47 (C14)	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	16	08:03 (C14) 08:19 (C14)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	28	07:19 (C14) 07:47 (C14)	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	12	08:05 (C14) 08:17 (C14)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	28	07:19 (C14) 07:47 (C14)	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	6	08:07 (C14) 08:13 (C14)	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	28	07:19 (C14) 07:47 (C14)	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	07:50 17:12	06:40 18:13	27	07:19 (C14) 07:46 (C14)	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 18:15	26	07:19 (C14) 07:45 (C14)	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	25	07:20 (C14) 07:45 (C14)	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	23	07:20 (C14) 07:43 (C14)	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	20	07:21 (C14) 07:41 (C14)	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	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	17	07:22 (C14) 07:39 (C14)	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09			07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	11	07:25 (C14) 07:36 (C14)	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 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 17:59			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 17:58			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	07:59 18:00	08:07 17:56			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 17:55			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 17:53			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 (C14) 08:22 (C14)	07:07 16:52	15	08:07 (C14) 08:25 (C14)	07:07 16:52	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	08:04 (C14) 08:23 (C14)	07:10 16:50	19	08:04 (C14) 08:25 (C14)	07:10 16:50	08:51 15:51
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	08:03 (C14) 08:25 (C14)	07:12 16:48	22	08:03 (C14) 08:25 (C14)	07:12 16:48	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	08:01 (C14) 08:26 (C14)	07:14 16:45	24	08:01 (C14) 08:26 (C14)	07:14 16:45	08:51 15:44
29	08:20 16:39		06:57 19:47		05:37 20:51	04:40 21:48	04:29 21:50	05:10 21:34	06:11 20:22	07:13 18:59	08:00 (C14) 08:26 (C14)	07:16 16:43	26	08:00 (C14) 08:26 (C14)	07:16 16:43	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	07:59 (C14) 08:26 (C14)	07:18 16:41	27	07:59 (C14) 08:26 (C14)	07:18 16:41	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			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				373							142		243			
Sun reduction				0.41							0.43		0.26			
Oper. time red.				0.98							0.98		0.98			
Wind dir. red.				0.62							0.62		0.62			
Total reduction				0.25							0.26		0.16			
Total, real				93							37		38			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	27	07:51 (C14) 08:18 (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	26	07:51 (C14) 08:17 (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	25	07:51 (C14) 08:16 (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	23	07:52 (C14) 08:15 (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		07:25 18:43	19	07:54 (C14) 08:13 (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	15	07:56 (C14) 08:11 (C14)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	8	07:21 (C14) 07:32 (C14)	06:33 21:06	05:19 21:59	04:30 22:06	05:27 21:17	06:29 20:01		07:30 18:38	11	07:51 (C14) 08:09 (C14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	13	07:18 (C14) 07:35 (C14)	06:30 21:08	05:17 22:00	04:29 22:05	05:29 21:15	06:31 19:58		07:32 18:35	5	08:00 (C14) 08:05 (C14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	17	07:16 (C14) 07:37 (C14)	06:28 21:10	05:15 22:02	04:29 22:03	05:31 21:13	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	21	07:13 (C14) 07:37 (C14)	06:25 21:12	05:13 22:02	04:28 22:03	05:33 21:11	06:35 19:53		07:36 18:33			07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	24	07:12 (C14) 07:38 (C14)	06:22 21:14	05:11 22:03	04:27 22:02	05:35 21:08	06:37 19:50		07:38 18:30			07:44 16:15	08:39 15:39
12	08:44 16:04	07:52 17:10	06:42 18:11	26	07:12 (C14) 07:38 (C14)	06:20 21:16	05:09 22:04	04:27 22:01	05:37 21:06	06:39 19:48		07:40 18:27			07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	26	07:11 (C14) 07:38 (C14)	06:17 21:20	05:07 22:06	04:27 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	27	07:11 (C14) 07:38 (C14)	06:15 21:22	05:05 22:07	04:26 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	27	07:11 (C14) 07:38 (C14)	06:12 21:24	05:03 22:07	04:26 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	27	07:11 (C14) 07:37 (C14)	06:09 21:26	05:01 22:08	04:26 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	26	07:11 (C14) 07:36 (C14)	06:07 21:27	04:59 22:08	04:25 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	25	07:11 (C14) 07:34 (C14)	06:04 21:29	04:57 22:09	04:25 21:52	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	23	07:12 (C14) 07:34 (C14)	06:02 21:31	04:55 22:09	04:25 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	22	07:13 (C14) 07:32 (C14)	05:59 21:33	04:54 22:10	04:25 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	19	07:15 (C14) 07:29 (C14)	05:57 21:35	04:52 22:10	04:25 21:48	05:55 20:42	06:57 19:21	08:06 (C14)	07:59 18:02	3	08:09 (C14)	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	14	07:18 (C14) 07:26 (C14)	05:54 21:37	04:50 22:10	04:26 21:46	05:57 20:40	06:59 19:18	08:01 (C14)	08:01 18:00	8	08:14 (C14) 08:14 (C14)	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	8	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	07:58 (C14)	08:03 17:57	13	08:16 (C14)	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	07:56 (C14)	08:05 17:55	18	08:16 (C14)	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	07:55 (C14)	07:07 16:52	21	07:55 (C14)	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	07:54 (C14)	07:10 16:50	23	08:18 (C14)	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	07:53 (C14)	07:12 16:48	24	08:19 (C14)	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	07:52 (C14)	07:14 16:45	26	08:19 (C14)	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	07:51 (C14)	07:16 16:43	27	08:19 (C14)	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	07:51 (C14)	07:18 16:41	27	08:18 (C14)	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	385		324			247	216
Total, worst case				353						209		151				
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.98						0.98		0.98				
Wind dir. red.				0.62						0.62		0.62				
Total reduction				0.25						0.26		0.16				
Total, real				88						54		24				

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	12	07:46 (C14) 07:58 (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			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		07:25 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 15:56	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	04:40 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 07:17 (C14)	05:09 20:16	04:27 21:18	04:42 22:05	05:37 22:00	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	9	07:05 (C14) 07:20 (C14)	06:17 20:18	05:07 21:20	04:27 22:06	05:39 21:02	06:41 19:42	7	07:54 (C14) 08:01 (C14)			07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	15	07:02 (C14) 07:21 (C14)	06:15 20:20	05:05 21:22	04:26 22:07	05:41 21:58	06:43 20:39	14	07:50 (C14) 08:04 (C14)			07:44 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	19	07:00 (C14) 07:23 (C14)	06:12 20:22	05:03 21:24	04:26 22:07	05:43 21:57	06:45 19:37	18	07:48 (C14) 08:06 (C14)			07:46 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	23	06:59 (C14) 07:24 (C14)	06:09 20:24	05:01 21:25	04:26 22:08	05:45 21:55	06:47 19:34	22	07:46 (C14) 08:08 (C14)			07:48 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	25	06:57 (C14) 07:24 (C14)	06:07 20:26	04:59 21:27	04:25 22:08	05:49 21:54	06:49 19:31	25	07:44 (C14) 08:09 (C14)			07:50 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	27	06:56 (C14) 07:24 (C14)	06:04 20:28	04:57 21:29	04:25 22:09	05:49 21:52	06:51 19:29	26	07:43 (C14) 08:09 (C14)			07:52 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	28	06:56 (C14) 07:25 (C14)	06:02 20:31	04:55 21:31	04:25 22:09	05:51 21:51	06:53 19:26	28	07:42 (C14) 08:10 (C14)			07:55 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	29	06:55 (C14) 07:25 (C14)	05:59 20:33	04:54 21:33	04:25 22:10	05:53 21:49	06:55 19:23	29	07:41 (C14) 08:10 (C14)			07:57 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	30	06:54 (C14) 07:24 (C14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 21:48	06:57 19:21	30	07:40 (C14) 08:10 (C14)			07:59 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	30	06:55 (C14) 07:24 (C14)	05:54 20:37	04:50 21:37	04:26 22:10	05:57 21:46	06:59 19:18	30	07:40 (C14) 08:10 (C14)			08:01 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	29	06:54 (C14) 07:23 (C14)	05:52 20:39	04:48 21:38	04:26 22:10	05:59 21:45	07:01 19:15	29	07:40 (C14) 08:09 (C14)			08:03 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	29	06:54 (C14) 07:22 (C14)	05:49 20:41	04:47 21:40	04:26 22:10	05:59 21:43	07:01 19:12	30	07:39 (C14) 08:09 (C14)			08:05 15:53	08:51 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	28	06:55 (C14) 07:22 (C14)	05:47 20:43	04:45 21:42	04:27 22:10	06:03 21:41	07:05 19:10	29	07:39 (C14) 08:08 (C14)			08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	27	06:55 (C14) 07:20 (C14)	05:45 20:45	04:44 21:43	04:27 22:10	06:05 21:39	07:07 19:07	27	07:40 (C14) 08:07 (C14)			08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	26	06:56 (C14) 07:19 (C14)	05:42 20:47	04:42 21:45	04:28 22:10	06:07 21:38	07:09 19:04	26	07:40 (C14) 08:06 (C14)			08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	25	06:58 (C14) 07:17 (C14)	05:40 20:49	04:41 21:47	04:28 22:10	06:09 21:36	07:11 19:02	24	07:41 (C14) 08:05 (C14)			08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	24	07:59 (C14) 08:15 (C14)	05:37 20:51	04:40 21:48	04:29 22:10	06:11 21:34	07:13 18:59	21	07:42 (C14) 08:03 (C14)			08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	23	08:02 (C14) 08:10 (C14)	05:35 20:53	04:38 21:50	04:29 22:09	06:13 21:32	07:15 18:56	17	07:44 (C14) 08:01 (C14)			08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51	22			04:37 21:51		06:15 21:30							08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324			247	216
Total, worst case				439						432			12			
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				0.26						0.27			0.16			
Total, real				112						115			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)
	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		10:07 (C13)	07:11	06:49	05:33	04:36
	15:48	27	10:32 (C13)	16:45	43	10:50 (C13)	17:48	19:53	20:55	21:53
2	08:50		10:05 (C13)	08:13		10:08 (C13)	07:08	06:46	05:30	04:35
	15:49	29	10:34 (C13)	16:47	41	10:49 (C13)	17:50	19:55	20:57	21:54
3	08:50		10:05 (C13)	08:11		10:09 (C13)	07:06	06:43	05:28	04:34
	15:51	29	10:34 (C13)	16:50	40	10:49 (C13)	17:52	19:57	21:00	21:55
4	08:50		10:04 (C13)	08:09		10:10 (C13)	07:03	06:41	05:26	04:33
	15:52	31	10:35 (C13)	16:52	39	10:49 (C13)	17:54	19:59	21:02	21:57
5	08:49		10:05 (C13)	08:07		10:11 (C13)	07:00	06:38	05:23	04:32
	15:53	32	10:37 (C13)	16:54	37	10:48 (C13)	17:56	20:01	21:04	21:58
6	08:49		10:05 (C13)	08:05		10:11 (C13)	06:58	06:35	05:21	04:31
	15:55	32	10:37 (C13)	16:56	36	10:47 (C13)	17:58	20:03	21:06	21:59
7	08:48		10:04 (C13)	08:03		10:13 (C13)	06:55	06:33	05:19	04:30
	15:56	34	10:38 (C13)	16:59	33	10:46 (C13)	18:00	20:05	21:08	22:00
8	08:48		10:04 (C13)	08:01		10:14 (C13)	06:53	06:30	05:17	04:29
	15:58	35	10:39 (C13)	17:01	31	10:45 (C13)	18:03	20:08	21:10	22:01
9	08:47		10:04 (C13)	07:58		10:15 (C13)	06:50	06:28	05:15	04:29
	15:59	36	10:40 (C13)	17:03	28	10:43 (C13)	18:05	20:10	21:12	22:02
10	08:46		10:04 (C13)	07:56		10:18 (C13)	06:47	06:25	05:13	04:28
	16:01	37	10:41 (C13)	17:05	23	10:41 (C13)	18:07	20:12	21:14	22:03
11	08:45		10:04 (C13)	07:54		10:21 (C13)	06:45	06:22	05:11	04:27
	16:03	38	10:42 (C13)	17:08	17	10:38 (C13)	18:09	20:14	21:16	22:04
12	08:44		10:05 (C13)	07:52		10:25 (C13)	06:42	06:20	05:08	04:27
	16:04	38	10:43 (C13)	17:10	8	10:33 (C13)	18:11	20:16	21:18	22:05
13	08:43		10:04 (C13)	07:49			06:40	06:17	05:06	04:26
	16:06	39	10:43 (C13)	17:12			18:13	20:18	21:20	22:06
14	08:42		10:04 (C13)	07:47			06:37	06:14	05:04	04:26
	16:08	40	10:44 (C13)	17:14			18:15	20:20	21:22	22:07
15	08:41		10:03 (C13)	07:45			06:34	06:12	05:03	04:26
	16:10	41	10:44 (C13)	17:17			18:18	20:22	21:24	22:07
16	08:40		10:04 (C13)	07:43			06:32	06:09	05:01	04:25
	16:12	41	10:45 (C13)	17:19			18:20	20:24	21:25	22:08
17	08:39		10:04 (C13)	07:40			06:29	06:07	04:59	04:25
	16:14	43	10:47 (C13)	17:21			18:22	20:26	21:27	22:08
18	08:37		10:04 (C13)	07:38			06:26	06:04	04:57	04:25
	16:16	43	10:47 (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	43	10:47 (C13)	17:26			18:26	20:30	21:31	22:09
20	08:35		10:04 (C13)	07:33			06:21	05:59	04:53	04:25
	16:20	44	10:48 (C13)	17:28			18:28	20:33	21:33	22:10
21	08:33		10:04 (C13)	07:31			06:18	05:57	04:52	04:25
	16:22	44	10:48 (C13)	17:30			18:30	20:35	21:35	22:10
22	08:32		10:04 (C13)	07:28			06:16	05:54	04:50	04:25
	16:24	45	10:49 (C13)	17:32			18:32	20:37	21:37	22:10
23	08:30		10:04 (C13)	07:26			06:13	05:52	04:48	04:26
	16:26	45	10:49 (C13)	17:34			18:34	20:39	21:38	22:10
24	08:29		10:05 (C13)	07:23			06:10	05:49	04:47	04:26
	16:28	45	10:50 (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	45	10:50 (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	45	10:50 (C13)	17:41			18:41	20:45	21:43	22:10
27	08:24		10:06 (C13)	07:16			06:02	05:42	04:42	04:27
	16:34	45	10:51 (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	45	10:51 (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	45	10:51 (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	44	10:51 (C13)				19:49	20:53	21:50	22:09
31	08:17		10:07 (C13)				06:51		04:37	
	16:43	44	10:51 (C13)				19:51		21:51	
Potential sun hours	235			266			366	426	508	529
Total, worst case		1224			376					
Sun reduction		0.13			0.20					
Oper. time red.		0.98			0.98					
Wind dir. red.		0.61			0.61					
Total reduction		0.08			0.12					
Total, real		98			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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	09:47 (C13) 10:11 (C13)	08:24 15:45	09:46 (C13) 10:24 (C13)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:45 (C13) 10:13 (C13)	08:26 15:44	09:47 (C13) 10:24 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:44 (C13) 10:15 (C13)	08:28 15:43	09:47 (C13) 10:23 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:42 (C13) 10:16 (C13)	08:29 15:42	09:48 (C13) 10:23 (C13)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:41 (C13) 10:17 (C13)	08:31 15:42	09:50 (C13) 10:23 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:41 (C13) 10:18 (C13)	08:32 15:41	09:51 (C13) 10:23 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:39 (C13) 10:19 (C13)	08:34 15:40	09:51 (C13) 10:23 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:40 (C13) 10:20 (C13)	08:35 15:40	09:52 (C13) 10:23 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:39 (C13) 10:20 (C13)	08:37 15:39	09:53 (C13) 10:22 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:39 (C13) 10:21 (C13)	08:38 15:39	09:54 (C13) 10:23 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:38 (C13) 10:22 (C13)	08:39 15:38	09:55 (C13) 10:23 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:38 (C13) 10:22 (C13)	08:40 15:38	09:56 (C13) 10:23 (C13)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:38 (C13) 10:23 (C13)	08:42 15:38	09:57 (C13) 10:23 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:38 (C13) 10:23 (C13)	08:43 15:38	09:58 (C13) 10:23 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:38 (C13) 10:22 (C13)	08:44 15:38	09:58 (C13) 10:23 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:38 (C13) 10:23 (C13)	08:45 15:38	09:59 (C13) 10:23 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:38 (C13) 10:23 (C13)	08:46 15:38	10:00 (C13) 10:23 (C13)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:39 (C13) 10:24 (C13)	08:46 15:38	10:01 (C13) 10:24 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:39 (C13) 10:24 (C13)	08:47 15:38	10:01 (C13) 10:23 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:39 (C13) 10:24 (C13)	08:48 15:39	10:02 (C13) 10:24 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:39 (C13) 10:23 (C13)	08:48 15:39	10:03 (C13) 10:25 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:40 (C13) 10:24 (C13)	08:49 15:39	10:03 (C13) 10:25 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:41 (C13) 10:24 (C13)	08:50 15:40	10:04 (C13) 10:26 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:41 (C13) 10:24 (C13)	08:50 15:41	10:04 (C13) 10:26 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	09:42 (C13) 10:24 (C13)	08:50 15:41	10:04 (C13) 10:27 (C13)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	09:42 (C13) 10:23 (C13)	08:51 15:42	10:04 (C13) 10:27 (C13)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47	08:17 15:49	09:44 (C13) 10:24 (C13)	08:51 15:43	10:04 (C13) 10:28 (C13)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	09:44 (C13) 10:24 (C13)	08:51 15:44	10:04 (C13) 10:29 (C13)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	09:45 (C13) 10:24 (C13)	08:51 15:45	10:05 (C13) 10:30 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	08:22 15:46	09:46 (C13) 10:24 (C13)	08:51 15:46	10:05 (C13) 10:31 (C13)
31	05:14 21:30	06:15 20:17		08:20 16:38	08:24 15:47	09:49 (C13) 10:08 (C13)	08:51 15:47	10:05 (C13) 10:32 (C13)
Potential sun hours	529	469	385	324	247		216	
Total, worst case				30	1214		838	
Sun reduction				0.26	0.08		0.07	
Oper. time red.				0.98	0.98		0.98	
Wind dir. red.				0.61	0.61		0.61	
Total reduction				0.16	0.05		0.04	
Total, real				5	60		35	

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January		February		March	April	May	June
1	08:51	10:09 (C13)	08:15	10:11 (C13)	07:11	06:49	05:33	04:36
	15:48	29 10:38 (C13)	16:45	44 10:55 (C13)	17:48	19:53	20:55	21:53
2	08:50	10:09 (C13)	08:13	10:11 (C13)	07:08	06:46	05:30	04:35
	15:49	30 10:39 (C13)	16:47	44 10:55 (C13)	17:50	19:55	20:57	21:54
3	08:50	10:09 (C13)	08:11	10:12 (C13)	07:06	06:43	05:28	04:34
	15:51	31 10:40 (C13)	16:50	43 10:55 (C13)	17:52	19:57	21:00	21:55
4	08:50	10:08 (C13)	08:09	10:13 (C13)	07:03	06:41	05:26	04:33
	15:52	32 10:40 (C13)	16:52	42 10:55 (C13)	17:54	19:59	21:02	21:57
5	08:49	10:09 (C13)	08:07	10:14 (C13)	07:00	06:38	05:23	04:32
	15:53	33 10:42 (C13)	16:54	40 10:54 (C13)	17:56	20:01	21:04	21:58
6	08:49	10:09 (C13)	08:05	10:14 (C13)	06:58	06:35	05:21	04:31
	15:55	34 10:43 (C13)	16:56	39 10:53 (C13)	17:58	20:03	21:06	21:59
7	08:48	10:08 (C13)	08:03	10:16 (C13)	06:55	06:33	05:19	04:30
	15:56	35 10:43 (C13)	16:59	36 10:52 (C13)	18:00	20:05	21:08	22:00
8	08:48	10:08 (C13)	08:01	10:17 (C13)	06:53	06:30	05:17	04:29
	15:58	36 10:44 (C13)	17:01	34 10:51 (C13)	18:03	20:08	21:10	22:01
9	08:47	10:08 (C13)	07:58	10:18 (C13)	06:50	06:28	05:15	04:29
	15:59	37 10:45 (C13)	17:03	31 10:49 (C13)	18:05	20:10	21:12	22:02
10	08:46	10:08 (C13)	07:56	10:20 (C13)	06:47	06:25	05:13	04:28
	16:01	38 10:46 (C13)	17:05	28 10:48 (C13)	18:07	20:12	21:14	22:03
11	08:45	10:08 (C13)	07:54	10:23 (C13)	06:45	06:22	05:11	04:27
	16:03	39 10:47 (C13)	17:08	23 10:46 (C13)	18:09	20:14	21:16	22:04
12	08:44	10:08 (C13)	07:52	10:25 (C13)	06:42	06:20	05:08	04:27
	16:04	40 10:48 (C13)	17:10	18 10:43 (C13)	18:11	20:16	21:18	22:05
13	08:43	10:08 (C13)	07:49	10:30 (C13)	06:40	06:17	05:06	04:26
	16:06	40 10:48 (C13)	17:12	8 10:38 (C13)	18:13	20:18	21:20	22:06
14	08:42	10:08 (C13)	07:47		06:37	06:14	05:04	04:26
	16:08	41 10:49 (C13)	17:14		18:15	20:20	21:22	22:07
15	08:41	10:07 (C13)	07:45		06:34	06:12	05:03	04:26
	16:10	43 10:50 (C13)	17:17		18:18	20:22	21:24	22:07
16	08:40	10:08 (C13)	07:43		06:32	06:09	05:01	04:25
	16:12	43 10:51 (C13)	17:19		18:20	20:24	21:25	22:08
17	08:39	10:08 (C13)	07:40		06:29	06:07	04:59	04:25
	16:14	44 10:52 (C13)	17:21		18:22	20:26	21:27	22:08
18	08:37	10:08 (C13)	07:38		06:26	06:04	04:57	04:25
	16:16	44 10:52 (C13)	17:23		18:24	20:28	21:29	22:09
19	08:36	10:08 (C13)	07:36		06:24	06:02	04:55	04:25
	16:18	44 10:52 (C13)	17:26		18:26	20:30	21:31	22:09
20	08:35	10:08 (C13)	07:33		06:21	05:59	04:53	04:25
	16:20	46 10:54 (C13)	17:28		18:28	20:33	21:33	22:10
21	08:33	10:08 (C13)	07:31		06:18	05:57	04:52	04:25
	16:22	46 10:54 (C13)	17:30		18:30	20:35	21:35	22:10
22	08:32	10:08 (C13)	07:28		06:16	05:54	04:50	04:25
	16:24	46 10:54 (C13)	17:32		18:32	20:37	21:37	22:10
23	08:30	10:08 (C13)	07:26		06:13	05:52	04:48	04:26
	16:26	46 10:54 (C13)	17:34		18:34	20:39	21:38	22:10
24	08:29	10:09 (C13)	07:23		06:10	05:49	04:47	04:26
	16:28	47 10:56 (C13)	17:37		18:36	20:41	21:40	22:10
25	08:27	10:09 (C13)	07:21		06:07	05:47	04:45	04:26
	16:30	47 10:56 (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	47 10:56 (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	47 10:56 (C13)	17:43		18:43	20:47	21:45	22:10
28	08:22	10:10 (C13)	07:13		05:59	05:40	04:41	04:28
	16:36	46 10:56 (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	46 10:56 (C13)			19:47	20:51	21:48	22:10
30	08:18	10:10 (C13)			06:54	05:35	04:38	04:29
	16:41	46 10:56 (C13)			19:49	20:53	21:50	22:09
31	08:17	10:11 (C13)			06:51		04:37	
	16:43	45 10:56 (C13)			19:51		21:51	
Potential sun hours	235		266		366	426	508	529
Total, worst case	1268		430					
Sun reduction	0.13		0.20					
Oper. time red.	0.98		0.98					
Wind dir. red.	0.61		0.61					
Total reduction	0.08		0.12					
Total, real	101		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	29	09:49 (C13) 10:18 (C13)	08:24 15:45	09:50 (C13) 10:29 (C13)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51		07:25 16:34	32	09:47 (C13) 10:19 (C13)	08:26 15:44	09:51 (C13) 10:29 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48		07:27 16:32	34	09:47 (C13) 10:21 (C13)	08:28 15:43	09:51 (C13) 10:28 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46		07:29 16:29	37	09:45 (C13) 10:22 (C13)	08:29 15:42	09:52 (C13) 10:28 (C13)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43		07:31 16:27	39	09:44 (C13) 10:23 (C13)	08:31 15:42	09:53 (C13) 10:29 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40		07:33 16:25	40	09:44 (C13) 10:24 (C13)	08:32 15:41	09:55 (C13) 10:29 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38		07:36 16:23	42	09:43 (C13) 10:25 (C13)	08:34 15:40	09:55 (C13) 10:28 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35		07:38 16:21	43	09:43 (C13) 10:26 (C13)	08:35 15:40	09:56 (C13) 10:28 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32		07:40 16:19	44	09:42 (C13) 10:26 (C13)	08:37 15:39	09:57 (C13) 10:28 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30		07:42 16:17	45	09:42 (C13) 10:27 (C13)	08:38 15:39	09:58 (C13) 10:28 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27		07:44 16:15	45	09:42 (C13) 10:27 (C13)	08:39 15:38	09:59 (C13) 10:28 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25		07:46 16:13	46	09:41 (C13) 10:27 (C13)	08:40 15:38	10:00 (C13) 10:29 (C13)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22		07:49 16:11	46	09:42 (C13) 10:28 (C13)	08:42 15:38	10:01 (C13) 10:29 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19		07:51 16:09	46	09:42 (C13) 10:28 (C13)	08:43 15:38	10:01 (C13) 10:28 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17		07:53 16:08	47	09:41 (C13) 10:28 (C13)	08:44 15:38	10:02 (C13) 10:28 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14		07:55 16:06	47	09:42 (C13) 10:29 (C13)	08:45 15:38	10:03 (C13) 10:29 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12		07:57 16:04	47	09:42 (C13) 10:29 (C13)	08:46 15:38	10:04 (C13) 10:29 (C13)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09		07:59 16:02	47	09:43 (C13) 10:30 (C13)	08:46 15:38	10:05 (C13) 10:29 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07		08:01 16:01	46	09:43 (C13) 10:29 (C13)	08:47 15:38	10:05 (C13) 10:29 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04		08:03 15:59	46	09:43 (C13) 10:29 (C13)	08:48 15:39	10:06 (C13) 10:29 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02		08:05 15:58	46	09:43 (C13) 10:29 (C13)	08:48 15:39	10:06 (C13) 10:30 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59		08:07 15:56	46	09:44 (C13) 10:30 (C13)	08:49 15:39	10:06 (C13) 10:30 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57		08:09 15:55	45	09:45 (C13) 10:30 (C13)	08:50 15:40	10:07 (C13) 10:31 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55		08:11 15:53	44	09:45 (C13) 10:29 (C13)	08:50 15:41	10:08 (C13) 10:32 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52		08:13 15:52	44	09:45 (C13) 10:29 (C13)	08:50 15:41	10:08 (C13) 10:32 (C13)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:10 16:50		08:15 15:51	43	09:46 (C13) 10:29 (C13)	08:51 15:42	10:08 (C13) 10:33 (C13)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47		08:17 15:49	43	09:47 (C13) 10:30 (C13)	08:51 15:43	10:08 (C13) 10:33 (C13)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45		08:19 15:48	42	09:48 (C13) 10:30 (C13)	08:51 15:44	10:08 (C13) 10:34 (C13)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	09:58 (C13) 10:09 (C13)	08:21 15:47	40	09:49 (C13) 10:29 (C13)	08:51 15:45	10:08 (C13) 10:35 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	09:54 (C13) 10:13 (C13)	08:22 15:46	39	09:50 (C13) 10:29 (C13)	08:51 15:46	10:09 (C13) 10:36 (C13)
31	05:14 21:30	06:15 20:17		08:20 16:38	09:51 (C13) 10:15 (C13)				08:51 15:47	10:09 (C13) 10:37 (C13)
Potential sun hours	529	469	385	324		247			216	
Total, worst case				54		1280			885	
Sun reduction				0.26		0.08			0.07	
Oper. time red.				0.98		0.98			0.98	
Wind dir. red.				0.61		0.61			0.61	
Total reduction				0.16		0.05			0.04	
Total, real				8		63			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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January		February		March	April	May	June
1	08:51	10:13 (C13)	08:15	10:18 (C13)	07:11	06:49	05:33	04:36
	15:48	34	10:47 (C13)	16:45	43	11:01 (C13)	17:48	19:53
2	08:50	10:14 (C13)	08:13	10:19 (C13)	07:08	06:46	05:30	04:35
	15:49	34	10:48 (C13)	16:47	42	11:01 (C13)	17:50	19:55
3	08:50	10:13 (C13)	08:11	10:20 (C13)	07:06	06:43	05:28	04:34
	15:51	35	10:48 (C13)	16:50	40	11:00 (C13)	17:52	19:57
4	08:50	10:13 (C13)	08:09	10:21 (C13)	07:03	06:41	05:26	04:33
	15:52	36	10:49 (C13)	16:52	39	11:00 (C13)	17:54	19:59
5	08:49	10:14 (C13)	08:07	10:22 (C13)	07:00	06:38	05:23	04:32
	15:53	36	10:50 (C13)	16:54	37	10:59 (C13)	17:56	20:01
6	08:49	10:14 (C13)	08:05	10:23 (C13)	06:58	06:35	05:21	04:31
	15:55	37	10:51 (C13)	16:56	35	10:58 (C13)	17:58	20:03
7	08:48	10:13 (C13)	08:03	10:25 (C13)	06:55	06:33	05:19	04:30
	15:56	39	10:52 (C13)	16:59	32	10:57 (C13)	18:00	20:05
8	08:48	10:13 (C13)	08:01	10:26 (C13)	06:53	06:30	05:17	04:29
	15:58	39	10:52 (C13)	17:01	29	10:55 (C13)	18:03	20:08
9	08:47	10:14 (C13)	07:58	10:28 (C13)	06:50	06:28	05:15	04:28
	15:59	39	10:53 (C13)	17:03	25	10:53 (C13)	18:05	20:10
10	08:46	10:14 (C13)	07:56	10:31 (C13)	06:47	06:25	05:13	04:28
	16:01	40	10:54 (C13)	17:05	20	10:51 (C13)	18:07	20:12
11	08:45	10:14 (C13)	07:54	10:35 (C13)	06:45	06:22	05:11	04:27
	16:03	41	10:55 (C13)	17:08	12	10:47 (C13)	18:09	20:14
12	08:44	10:14 (C13)	07:52		06:42	06:20	05:08	04:27
	16:04	42	10:56 (C13)	17:10		18:11	20:16	21:18
13	08:43	10:13 (C13)	07:49		06:40	06:17	05:06	04:26
	16:06	43	10:56 (C13)	17:12		18:13	20:18	21:20
14	08:42	10:14 (C13)	07:47		06:37	06:14	05:04	04:26
	16:08	43	10:57 (C13)	17:14		18:15	20:20	21:22
15	08:41	10:13 (C13)	07:45		06:34	06:12	05:03	04:26
	16:10	44	10:57 (C13)	17:17		18:18	20:22	21:24
16	08:40	10:14 (C13)	07:43		06:32	06:09	05:01	04:25
	16:12	44	10:58 (C13)	17:19		18:20	20:24	21:25
17	08:39	10:14 (C13)	07:40		06:29	06:07	04:59	04:25
	16:14	45	10:59 (C13)	17:21		18:22	20:26	21:27
18	08:37	10:14 (C13)	07:38		06:26	06:04	04:57	04:25
	16:16	45	10:59 (C13)	17:23		18:24	20:28	21:29
19	08:36	10:14 (C13)	07:35		06:24	06:02	04:55	04:25
	16:18	46	11:00 (C13)	17:26		18:26	20:30	21:31
20	08:35	10:15 (C13)	07:33		06:21	05:59	04:53	04:25
	16:20	46	11:01 (C13)	17:28		18:28	20:33	21:33
21	08:33	10:14 (C13)	07:31		06:18	05:57	04:52	04:25
	16:22	47	11:01 (C13)	17:30		18:30	20:35	21:35
22	08:32	10:14 (C13)	07:28		06:16	05:54	04:50	04:25
	16:24	47	11:01 (C13)	17:32		18:32	20:37	21:37
23	08:30	10:14 (C13)	07:26		06:13	05:52	04:48	04:26
	16:26	47	11:01 (C13)	17:34		18:34	20:39	21:38
24	08:29	10:16 (C13)	07:23		06:10	05:49	04:47	04:26
	16:28	46	11:02 (C13)	17:37		18:36	20:41	21:40
25	08:27	10:16 (C13)	07:21		06:07	05:47	04:45	04:26
	16:30	46	11:02 (C13)	17:39		18:38	20:43	21:42
26	08:26	10:16 (C13)	07:18		06:05	05:44	04:44	04:27
	16:32	46	11:02 (C13)	17:41		18:41	20:45	21:43
27	08:24	10:16 (C13)	07:16		06:02	05:42	04:42	04:27
	16:34	47	11:03 (C13)	17:43		18:43	20:47	21:45
28	08:22	10:17 (C13)	07:13		05:59	05:40	04:41	04:28
	16:36	46	11:03 (C13)	17:45		18:45	20:49	21:47
29	08:20	10:17 (C13)			06:57	05:37	04:40	04:29
	16:39	46	11:03 (C13)			19:47	20:51	21:48
30	08:18	10:18 (C13)			06:54	05:35	04:38	04:29
	16:41	44	11:02 (C13)			19:49	20:53	21:50
31	08:17	10:18 (C13)			06:51		04:37	
	16:43	44	11:02 (C13)			19:51	21:51	
Potential sun hours	235		266		366	426	508	529
Total, worst case	1314		354					
Sun reduction	0.13		0.20					
Oper. time red.	0.98		0.98					
Wind dir. red.	0.61		0.61					
Total reduction	0.08		0.12					
Total, real	105		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	10:00 (C13) 10:21 (C13)	08:24 15:45	09:56 (C13) 41 10:37 (C13)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:57 (C13) 10:23 (C13)	08:26 15:44	09:57 (C13) 40 10:37 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:56 (C13) 10:25 (C13)	08:28 15:43	09:57 (C13) 39 10:36 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:54 (C13) 10:27 (C13)	08:29 15:42	09:58 (C13) 39 10:37 (C13)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:52 (C13) 10:27 (C13)	08:31 15:42	09:59 (C13) 38 10:37 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:52 (C13) 10:29 (C13)	08:32 15:41	10:00 (C13) 37 10:37 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:51 (C13) 10:30 (C13)	08:34 15:40	10:00 (C13) 37 10:37 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:51 (C13) 10:31 (C13)	08:35 15:40	10:01 (C13) 36 10:37 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:50 (C13) 10:32 (C13)	08:37 15:39	10:01 (C13) 36 10:37 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:50 (C13) 10:33 (C13)	08:38 15:39	10:03 (C13) 34 10:37 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:49 (C13) 10:33 (C13)	08:39 15:38	10:03 (C13) 34 10:37 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:49 (C13) 10:33 (C13)	08:40 15:38	10:05 (C13) 33 10:38 (C13)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:49 (C13) 10:34 (C13)	08:42 15:38	10:05 (C13) 33 10:38 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:49 (C13) 10:34 (C13)	08:43 15:38	10:06 (C13) 32 10:38 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:48 (C13) 10:34 (C13)	08:44 15:38	10:06 (C13) 32 10:38 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:49 (C13) 10:35 (C13)	08:45 15:38	10:07 (C13) 31 10:38 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:49 (C13) 10:35 (C13)	08:46 15:38	10:08 (C13) 30 10:38 (C13)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:50 (C13) 10:36 (C13)	08:46 15:38	10:09 (C13) 30 10:39 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:49 (C13) 10:36 (C13)	08:47 15:38	10:08 (C13) 30 10:38 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:49 (C13) 10:36 (C13)	08:48 15:39	10:09 (C13) 30 10:39 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:50 (C13) 10:36 (C13)	08:48 15:39	10:10 (C13) 30 10:40 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:51 (C13) 10:37 (C13)	08:49 15:39	10:10 (C13) 30 10:40 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:51 (C13) 10:37 (C13)	08:50 15:40	10:11 (C13) 30 10:41 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:51 (C13) 10:37 (C13)	08:50 15:41	10:11 (C13) 30 10:41 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	09:51 (C13) 10:36 (C13)	08:50 15:41	10:11 (C13) 31 10:42 (C13)
26	05:04 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	09:52 (C13) 10:36 (C13)	08:51 15:42	10:12 (C13) 30 10:42 (C13)
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30	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	09:55 (C13) 10:37 (C13)	08:51 15:46	10:13 (C13) 32 10:45 (C13)
31	05:14 21:30	06:15 20:17		07:20 16:38	10:02 (C13) 10:17 (C13)		08:51 15:47	10:13 (C13) 33 10:46 (C13)
Potential sun hours	529	469	385	324	15	247	216	
Total, worst case				15		1246		1032
Sun reduction				0.26		0.08		0.07
Oper. time red.				0.98		0.98		0.98
Wind dir. red.				0.61		0.61		0.61
Total reduction				0.16		0.05		0.04
Total, real				2		62		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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:10	06:48	05:32	04:36	04:30	05:16	06:17	07:17	07:22	08:24
	15:48	16:45	17:47	19:53	20:55	21:52	22:08	21:27	20:14	18:53	16:36	15:45
2	08:50	08:12	07:08	06:46	05:30	04:35	04:31	05:17	06:19	07:19	07:24	08:25
	15:49	16:47	17:49	19:55	20:57	21:53	22:08	21:25	20:11	18:51	16:34	15:44
3	08:50	08:10	07:05	06:43	05:28	04:34	04:32	05:19	06:21	07:21	07:26	08:27
	15:51	16:50	17:52	19:57	20:59	21:55	22:07	21:23	20:08	18:48	16:31	15:43
4	08:49	08:08	07:03	06:40	05:25	04:33	04:33	05:21	06:23	07:23	07:29	08:29
	15:52	16:52	17:54	19:59	21:01	21:56	22:07	21:21	20:06	18:45	16:29	15:42
5	08:49	08:06	07:00	06:38	05:23	04:32	04:34	05:23	06:25	07:25	07:31	08:30
	15:53	16:54	17:56	20:01	21:03	21:57	22:06	21:19	20:03	18:43	16:27	15:42
6	08:48	08:04	06:58	06:35	05:21	04:31	04:35	05:25	06:27	07:27	07:33	08:32
	15:55	16:56	17:58	20:03	21:05	21:58	22:05	21:17	20:00	18:40	16:25	15:41
7	08:48	08:02	06:55	06:33	05:19	04:30	04:36	05:27	06:29	07:29	07:35	08:33
	15:56	16:58	18:00	20:05	21:07	22:00	22:05	21:15	19:58	18:37	16:23	15:40
8	08:47	08:00	06:52	06:30	05:17	04:29	04:37	05:29	06:31	07:31	07:37	08:35
	15:58	17:01	18:02	20:07	21:09	22:01	22:04	21:12	19:55	18:35	16:21	15:40
9	08:46	07:58	06:50	06:27	05:15	04:28	04:38	05:31	06:33	07:33	07:40	08:36
	15:59	17:03	18:05	20:09	21:11	22:02	22:03	21:10	19:52	18:32	16:19	15:39
10	08:45	07:56	06:47	06:25	05:12	04:28	04:39	05:33	06:35	07:35	07:42	08:37
	16:01	17:05	18:07	20:11	21:13	22:03	22:02	21:08	19:50	18:30	16:17	15:39
11	08:45	07:54	06:44	06:22	05:10	04:27	04:41	05:35	06:37	07:37	07:44	08:39
	16:03	17:07	18:09	20:13	21:15	22:04	22:01	21:06	19:47	18:27	16:15	15:38
12	08:44	07:51	06:42	06:19	05:08	04:27	04:42	05:37	06:39	07:39	07:46	08:40
	16:04	17:10	18:11	20:15	21:17	22:05	22:00	21:03	19:44	18:24	16:13	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	08:41
	16:06	17:12	18:13	20:18	21:19	22:05	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	04:45	05:41	06:43	07:44	07:50	08:42
	16:08	17:14	18:15	20:20	21:21	22:06	21:57	20:59	19:39	18:19	16:09	15:38
15	08:41	07:45	06:34	06:12	05:02	04:26	04:46	05:43	06:45	07:46	07:52	08:43
	16:10	17:16	18:17	20:22	21:23	22:07	21:56	20:56	19:36	18:17	16:07	15:38
16	08:39	07:42	06:31	06:09	05:01	04:25	04:48	05:45	06:47	07:48	07:54	08:44
	16:12	17:19	18:19	20:24	21:25	22:07	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	04:49	05:47	06:49	07:50	07:57	08:45
	16:14	17:21	18:21	20:26	21:27	22:08	21:53	20:52	19:31	18:12	16:04	15:38
18	08:37	07:37	06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:52	07:59	08:46
	16:16	17:23	18:24	20:28	21:29	22:08	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	04:52	05:51	06:53	07:54	08:01	08:47
	16:18	17:25	18:26	20:30	21:31	22:09	21:50	20:47	19:26	18:07	16:01	15:38
20	08:34	07:33	06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:56	08:03	08:47
	16:20	17:28	18:28	20:32	21:32	22:09	21:49	20:44	19:23	18:04	15:59	15:39
21	08:33	07:30	06:18	05:56	04:52	04:25	04:56	05:55	06:57	07:58	08:05	08:48
	16:22	17:30	18:30	20:34	21:34	22:09	21:47	20:42	19:20	18:02	15:58	15:39
22	08:31	07:28	06:15	05:54	04:50	04:25	04:57	05:57	06:59	08:01	08:07	08:48
	16:24	17:32	18:32	20:36	21:36	22:10	21:46	20:39	19:17	17:59	15:56	15:39
23	08:30	07:25	06:13	05:52	04:48	04:26	04:59	05:59	07:01	08:03	08:09	08:49
	16:26	17:34	18:34	20:38	21:38	22:10	21:44	20:37	19:15	17:57	15:55	15:40
24	08:28	07:23	06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:11	08:49
	16:28	17:36	18:36	20:40	21:39	22:10	21:42	20:34	19:12	17:54	15:53	15:40
25	08:27	07:20	06:07	05:47	04:45	04:26	05:03	06:03	07:05	07:07	08:13	08:50
	16:30	17:39	18:38	20:43	21:41	22:10	21:41	20:32	19:09	17:52	15:52	15:41
26	08:25	07:18	06:05	05:44	04:44	04:27	05:04	06:05	07:07	07:09	08:15	08:50
	16:32	17:41	18:40	20:45	21:43	22:10	21:39	20:29	19:07	17:50	15:51	15:42
27	08:23	07:15	06:02	05:42	04:42	04:27	05:06	06:07	07:09	07:11	08:16	08:50
	16:34	17:43	18:42	20:47	21:44	22:10	21:37	20:27	19:04	17:47	15:49	15:43
28	08:22	07:13	05:59	05:39	04:41	04:28	05:08	06:09	07:11	07:13	08:18	08:50
	16:36	17:45	18:44	20:49	21:46	22:09	21:35	20:24	19:01	17:45	15:48	15:44
29	08:20		06:56	05:37	04:39	04:28	05:10	06:11	07:13	07:16	08:20	08:50
	16:38		19:46	20:51	21:48	22:09	21:33	20:21	18:59	17:43	15:47	15:45
30	08:18		06:54	05:35	04:38	04:29	05:12	06:13	07:15	07:18	08:22	08:50
	16:41		19:48	20:53	21:49	22:09	21:31	20:19	18:56	17:40	15:46	15:46
31	08:16		06:51		04:37		05:14	06:15		07:20		08:50
	16:43		19:51		21:51		21:29	20:16		16:38		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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	09:16 (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	08:44 (C13) 15:45
2	08:50 15:49	08:13 16:47	09:16 (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	08:44 (C13) 15:44
3	08:50 15:51	08:11 16:50	09:16 (C13) 17:52	07:06 19:57	06:43 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:19 20:09	06:21 18:48	07:27 16:32	08:45 (C13) 15:43
4	08:50 15:52	08:09 16:52	09:16 (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	08:45 (C13) 15:42
5	08:49 15:53	08:07 16:54	09:16 (C13) 17:56	07:00 19:58	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	08:44 (C13) 15:42
6	08:49 15:55	08:05 16:56	09:15 (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	08:45 (C13) 15:41
7	08:48 15:56	08:03 16:59	09:15 (C13) 18:01	06:55 20:05	06:33 21:08	05:19 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:45 (C13) 15:40
8	08:48 15:58	08:01 17:01	09:15 (C13) 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:47 (C13) 15:40
9	08:47 15:59	07:58 17:03	09:14 (C13) 18:05	06:50 20:10	06:28 21:12	05:15 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:47 (C13) 15:39
10	08:46 16:01	07:56 17:05	09:15 (C13) 18:07	06:47 20:12	06:25 21:14	05:13 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:48 (C13) 15:39
11	08:45 16:03	07:54 17:08	09:15 (C13) 18:09	06:45 20:14	06:22 21:16	05:11 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:49 (C13) 15:38
12	08:44 16:05	07:52 17:10	09:15 (C13) 18:11	06:42 20:16	06:20 21:18	05:08 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:49 (C13) 15:38
13	08:43 16:06	07:50 17:12	09:16 (C13) 18:13	06:40 20:18	06:17 21:20	05:06 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:51 (C13) 15:38
14	08:42 16:08	07:47 17:14	09:15 (C13) 18:15	06:37 20:20	06:15 21:22	05:04 22:07	04:46 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:52 (C13) 15:38
15	08:41 16:10	07:45 17:17	09:16 (C13) 18:18	06:34 20:22	06:12 21:24	05:03 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:53 (C13) 15:38
16	08:40 16:12	07:43 17:19	09:16 (C13) 18:20	06:32 20:24	06:09 21:25	05:01 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:55 (C13) 15:38
17	08:39 16:14	07:40 17:21	09:17 (C13) 18:22	06:29 20:26	06:07 21:27	04:59 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:57 (C13) 15:38
18	08:37 16:16	07:38 17:23	09:18 (C13) 18:24	06:26 20:28	06:04 21:29	04:57 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 17	08:59 (C13) 15:38
19	08:36 16:18	07:36 17:26	09:19 (C13) 18:26	06:24 20:30	06:02 21:31	04:55 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 22	09:02 (C13) 15:38
20	08:35 16:20	07:33 17:28	09:20 (C13) 18:28	06:21 20:33	05:59 21:33	04:53 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 27	09:15 (C13) 15:39
21	08:33 16:22	07:31 17:30	09:22 (C13) 18:30	06:18 20:35	05:57 21:35	04:52 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 31	09:16 (C13) 15:39
22	08:32 16:24	07:28 17:32	09:23 (C13) 18:32	06:16 20:37	05:54 21:37	04:50 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 33	09:17 (C13) 15:39
23	08:30 16:26	07:26 17:34	09:24 (C13) 18:34	06:13 20:39	05:52 21:38	04:48 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 35	09:18 (C13) 15:40
24	08:29 16:28	07:23 17:37	09:25 (C13) 18:36	06:10 20:41	05:49 21:40	04:47 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 37	09:19 (C13) 15:41
25	08:27 16:30	07:21 17:39	09:26 (C13) 18:37	06:07 20:43	05:47 21:42	04:45 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 38	09:20 (C13) 15:41
26	08:26 16:32	07:18 17:41	09:27 (C13) 18:38	06:05 20:45	05:44 21:43	04:44 22:10	05:04 21:39	06:05 20:30	07:07 19:07	08:15 17:50	08:17 41	09:21 (C13) 15:42
27	08:24 16:34	07:16 17:43	09:28 (C13) 18:39	06:02 20:47	05:42 21:45	04:42 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:17 17:47	08:19 41	09:22 (C13) 15:43
28	08:22 16:36	07:13 17:45	09:29 (C13) 18:40	06:00 20:49	05:40 21:47	04:41 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:19 17:45	08:21 42	09:23 (C13) 15:44
29	08:20 16:39	07:11 17:52	09:30 (C13) 18:41	05:57 20:51	05:37 21:48	04:40 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:21 17:43	08:23 43	09:24 (C13) 15:45
30	08:18 16:41	07:03 17:53	09:31 (C13) 18:42	05:54 20:53	05:35 21:50	04:38 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:22 17:41	08:24 44	09:25 (C13) 15:46
31	08:17 16:43	07:01 17:54	09:32 (C13) 18:43	05:51 20:54	05:32 21:51	04:37 22:10	05:14 21:30	06:15 20:17	07:20 18:38	08:23 17:40	08:25 43	09:26 (C13) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	242	898								496	659	
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	19	105								75	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
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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
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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:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

Shadow receptor: Starumeni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (121)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:59 (C13) 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	07:59 (C13) 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	08:01 (C13) 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	08:02 (C13) 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 20:03	07:25 18:43	07:31 16:27	08:06 (C13) 15:42
6	08:49 15:55	08:05 16:56	08:35 (C13) 17:58	06:58 20:03	06:35 21:06	05:21 21:59	04:31 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:14 (C13) 15:41
7	08:48 15:56	08:03 16:59	08:32 (C13) 18:01	06:55 20:06	06:33 21:08	05:19 22:00	04:30 22:05	05:27 21:15	06:29 20:09	07:30 18:38	07:36 16:23	08:18 (C13) 15:40
8	08:48 15:58	08:01 17:01	08:31 (C13) 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:29 22:04	05:29 21:13	06:31 20:06	07:32 18:35	07:38 16:21	08:18 (C13) 15:40
9	08:47 15:59	07:58 17:03	08:29 (C13) 18:05	06:50 20:10	06:28 21:12	05:15 22:02	04:29 22:03	05:31 21:11	06:33 20:03	07:34 18:32	07:40 16:19	08:18 (C13) 15:39
10	08:46 16:01	07:56 17:05	08:28 (C13) 18:07	06:48 20:12	06:25 21:14	05:13 22:03	04:28 22:02	05:33 21:09	06:35 20:03	07:36 18:30	07:42 16:17	08:18 (C13) 15:39
11	08:45 16:03	07:54 17:08	08:27 (C13) 18:09	06:45 20:14	06:22 21:16	05:11 22:04	04:27 22:01	05:35 21:06	06:37 20:03	07:38 18:27	07:44 16:15	08:18 (C13) 15:39
12	08:44 16:05	07:52 17:10	08:26 (C13) 18:11	06:42 20:16	06:20 21:18	05:09 22:05	04:27 22:00	05:37 21:04	06:39 20:03	07:40 18:25	07:46 16:13	08:18 (C13) 15:38
13	08:43 16:06	07:50 17:12	08:25 (C13) 18:13	06:40 20:18	06:17 21:20	05:07 22:06	04:26 21:59	05:39 21:02	06:41 20:03	07:42 18:22	07:49 16:11	08:18 (C13) 15:38
14	08:42 16:08	07:47 17:14	08:24 (C13) 18:15	06:37 20:20	06:15 21:22	05:05 22:07	04:26 21:58	05:41 20:59	06:43 20:03	07:44 18:20	07:51 16:09	08:18 (C13) 15:38
15	08:41 16:10	07:45 17:17	08:23 (C13) 18:18	06:34 20:22	06:12 21:24	05:03 22:07	04:26 21:57	05:43 20:57	06:45 20:03	07:46 18:17	07:53 16:08	08:18 (C13) 15:38
16	08:40 16:12	07:43 17:19	08:22 (C13) 18:20	06:32 20:24	06:09 21:26	05:01 22:08	04:25 21:55	05:45 20:54	06:47 20:03	07:48 18:14	07:55 16:06	08:18 (C13) 15:38
17	08:39 16:14	07:40 17:21	08:21 (C13) 18:22	06:29 20:26	06:07 21:27	04:59 22:09	04:25 21:54	05:47 20:52	06:49 20:03	07:50 18:12	07:57 16:04	08:18 (C13) 15:38
18	08:38 16:16	07:38 17:23	08:20 (C13) 18:24	06:26 20:28	06:04 21:29	04:57 22:09	04:25 21:53	05:49 20:50	06:51 20:03	07:52 18:09	07:59 16:02	08:18 (C13) 15:38
19	08:36 16:18	07:36 17:26	08:19 (C13) 18:26	06:24 20:31	06:02 21:31	04:55 22:09	04:25 21:51	05:51 20:47	06:53 20:03	07:55 18:07	08:01 16:01	08:18 (C13) 15:38
20	08:35 16:20	07:33 17:28	08:18 (C13) 18:28	06:21 20:33	05:59 21:33	04:53 22:10	04:25 21:50	05:53 20:45	06:55 20:03	07:57 18:04	08:03 15:59	08:18 (C13) 15:39
21	08:33 16:22	07:31 17:30	08:17 (C13) 18:30	06:18 20:35	05:57 21:35	04:52 22:10	04:25 21:48	05:55 20:42	06:57 20:03	07:59 18:02	08:05 15:58	08:18 (C13) 15:39
22	08:32 16:24	07:28 17:32	08:16 (C13) 18:32	06:16 20:37	05:54 21:37	04:50 22:10	04:25 21:46	05:57 20:40	06:59 20:03	08:01 18:00	08:07 15:56	08:18 (C13) 15:39
23	08:30 16:26	07:26 17:34	08:15 (C13) 18:34	06:13 20:39	05:52 21:38	04:48 22:10	04:26 21:45	05:59 20:37	07:01 20:03	08:03 17:57	08:09 15:55	08:18 (C13) 15:40
24	08:29 16:28	07:23 17:37	08:14 (C13) 18:36	06:10 20:41	05:49 21:40	04:47 22:10	04:26 21:43	06:01 20:35	07:03 20:03	08:05 17:55	08:11 15:53	08:18 (C13) 15:41
25	08:27 16:30	07:21 17:39	08:12 (C13) 18:38	06:08 20:43	05:47 21:42	04:45 22:10	04:26 21:41	06:03 20:32	07:05 20:03	08:07 17:52	08:13 15:52	08:18 (C13) 15:41
26	08:26 16:32	07:18 17:41	08:11 (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 20:03	08:09 17:50	08:15 15:51	08:18 (C13) 15:42
27	08:24 16:34	07:16 17:43	08:10 (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 20:03	08:12 17:48	08:17 15:49	08:18 (C13) 15:43
28	08:22 16:36	07:13 17:45	08:09 (C13) 18:45	05:59 20:49	05:40 21:47	04:41 22:10	04:28 21:36	06:09 20:24	07:11 20:03	08:14 17:45	08:19 15:48	08:18 (C13) 15:44
29	08:20 16:39	07:11 17:46	08:08 (C13) 18:46	05:57 20:51	05:37 21:48	04:40 22:10	04:29 21:34	06:11 20:22	07:13 20:03	08:16 17:43	08:21 15:47	08:18 (C13) 15:45
30	08:19 16:41	07:10 17:47	08:07 (C13) 18:47	05:56 20:52	05:36 21:49	04:39 22:10	04:29 21:32	06:13 20:19	07:15 20:03	08:18 17:41	08:22 15:46	08:18 (C13) 15:46
31	08:17 16:43	07:09 17:48	08:06 (C13) 18:48	05:55 20:53	05:35 21:51	04:38 21:51	04:29 21:30	06:15 20:17	07:17 20:03	08:19 17:38	08:23 15:47	08:18 (C13) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		352								279	79	
Sun reduction		0.20								0.26	0.08	
Oper. time red.		0.98								0.98	0.98	
Wind dir. red.		0.61								0.61	0.61	
Total reduction		0.12								0.16	0.05	
Total, real		43								43	4	

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	08:50 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 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 34	10:12 (C13) 10:46 (C13) 16:45	08:15 07:11 17:48	07:11 06:49 19:53	05:33 20:55 21:53	04:36 20:55 21:53	04:30 22:09 21:28	05:16 22:09 21:28	06:17 20:14 18:54	07:17 18:54 16:36	07:23 16:36 15:45	08:24 15:45 10:33 (C13)	09:59 (C13) 10:33 (C13)	34	
2	08:51 15:49 34	10:13 (C13) 10:47 (C13) 16:47	08:13 07:08 17:50	07:08 06:46 19:55	05:30 20:58 21:54	04:35 20:58 21:54	04:31 22:09 21:26	05:18 21:26 20:11	06:19 20:11 18:51	07:19 18:51 16:34	07:25 16:34 15:44	08:26 15:44 10:34 (C13)	09:59 (C13) 10:34 (C13)	35	
3	08:50 15:51 34	10:13 (C13) 10:47 (C13) 16:50	08:11 07:06 17:52	07:06 06:43 19:57	05:28 20:58 21:00	04:34 21:55 21:55	04:32 22:08 21:24	05:19 21:24 20:09	06:21 20:09 18:48	07:21 18:48 16:32	07:27 16:32 15:43	08:28 15:43 10:33 (C13)	09:59 (C13) 10:33 (C13)	34	
4	08:50 15:52 35	10:13 (C13) 10:48 (C13) 16:52	08:09 07:03 17:54	08:09 06:41 19:59	05:26 20:52 21:02	04:33 21:57 21:57	04:33 22:07 21:22	05:21 21:22 20:06	06:23 20:06 18:46	07:23 18:46 16:29	07:29 16:29 15:42	08:29 15:42 10:34 (C13)	09:59 (C13) 10:34 (C13)	35	
5	08:49 15:53 35	10:14 (C13) 10:49 (C13) 16:54	08:07 07:00 17:56	08:07 06:38 20:01	05:23 20:53 21:04	04:32 21:58 21:58	04:34 22:07 21:20	05:23 21:20 20:03	06:25 20:03 18:43	07:25 18:43 16:27	07:31 16:27 15:42	08:31 15:42 10:34 (C13)	10:00 (C13) 10:34 (C13)	34	
6	08:49 15:55 35	10:14 (C13) 10:49 (C13) 16:56	08:05 07:58 17:58	08:05 06:35 20:03	05:21 20:59 21:06	04:31 21:59 22:06	04:35 22:06 21:17	05:25 21:17 20:01	06:27 20:01 18:40	07:27 18:40 16:25	07:33 16:25 15:41	08:32 15:41 10:35 (C13)	10:00 (C13) 10:35 (C13)	35	
7	08:48 15:56 34	10:15 (C13) 10:49 (C13) 16:59	08:03 07:51 18:00	08:03 06:33 20:05	05:19 20:58 21:08	04:30 22:00 22:05	04:36 22:05 21:15	05:27 21:15 20:01	06:29 20:01 18:38	07:30 18:38 16:23	07:36 16:23 15:40	08:34 15:40 10:35 (C13)	10:00 (C13) 10:35 (C13)	35	
8	08:48 15:58 35	10:15 (C13) 10:50 (C13) 17:01	08:01 07:51 18:03	08:01 06:30 20:08	05:17 20:58 21:10	04:29 22:01 22:01	04:37 22:04 21:13	05:29 21:13 20:01	06:31 20:01 18:35	07:32 18:35 16:21	07:38 16:21 15:40	08:35 15:40 10:36 (C13)	10:01 (C13) 10:36 (C13)	35	
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11	08:45 16:03 34	10:17 (C13) 10:51 (C13) 17:08	07:54 07:47 18:09	07:54 06:22 20:14	05:11 20:58 21:16	04:27 22:04 22:04	04:41 22:04 21:06	05:35 21:06 20:01	06:37 20:01 18:27	07:38 18:27 16:15	07:44 16:15 15:38	08:39 15:38 10:36 (C13)	10:02 (C13) 10:36 (C13)	34	
12	08:44 16:04 35	10:17 (C13) 10:52 (C13) 17:10	07:52 07:47 18:11	07:52 06:20 20:16	05:08 20:58 21:18	04:27 22:04 22:05	04:42 22:05 21:06	05:37 21:06 20:01	06:39 20:01 18:25	07:40 18:25 16:13	07:46 16:13 15:38	08:40 15:38 10:36 (C13)	10:03 (C13) 10:36 (C13)	34	
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18	08:38 16:16 32	10:20 (C13) 10:52 (C13) 17:23	07:38 07:36 18:24	07:38 06:04 20:28	05:00 20:58 21:29	04:25 22:09 22:09	04:51 22:09 21:06	05:49 21:06 20:01	06:51 20:01 18:07	07:52 18:07 16:01	07:59 16:01 15:38	08:46 15:38 10:40 (C13)	10:06 (C13) 10:40 (C13)	34	
19	08:36 16:18 30	10:21 (C13) 10:51 (C13) 17:26	07:36 07:26 18:26	07:36 06:02 20:30	05:00 20:58 21:31	04:25 22:09 22:09	04:52 22:09 21:06	05:51 21:06 20:01	06:53 20:01 18:07	07:55 18:07 16:01	08:01 16:01 15:38	08:47 15:38 10:40 (C13)	10:07 (C13) 10:40 (C13)	30	
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21	08:33 16:22 28	10:23 (C13) 10:51 (C13) 17:30	07:31 07:30 18:30	07:31 05:57 20:35	05:00 20:58 21:35	04:25 22:10 22:10	04:56 22:10 21:06	05:55 21:06 20:01	06:57 20:01 18:02	07:59 18:02 15:58	08:05 15:58 15:39	08:49 15:39 10:41 (C13)	10:08 (C13) 10:41 (C13)	28	
22	08:32 16:24 26	10:24 (C13) 10:50 (C13) 17:32	07:28 07:32 18:32	07:28 05:54 20:37	05:00 20:58 21:37	04:25 22:10 22:10	04:57 22:10 21:06	05:57 21:06 20:01	06:59 20:01 17:59	08:01 17:59 15:56	08:07 15:56 15:39	08:49 15:39 10:41 (C13)	10:08 (C13) 10:41 (C13)	26	
23	08:30 16:26 24	10:25 (C13) 10:49 (C13) 17:34	07:26 07:34 18:34	07:26 05:52 20:39	05:00 20:58 21:38	04:26 22:10 22:10	04:59 22:10 21:06	05:59 21:06 20:01	07:01 20:01 17:57	08:03 17:57 15:55	08:09 15:55 15:38	08:50 15:38 10:42 (C13)	10:09 (C13) 10:42 (C13)	24	
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26	08:26 16:32 15	10:31 (C13) 10:46 (C13) 17:41	07:18 07:41 18:41	07:18 05:44 20:45	05:00 20:58 21:43	04:27 22:10 22:10	05:04 22:10 21:06	06:05 21:06 20:01	07:07 20:01 16:50	08:09 16:50 15:51	08:15 15:51 15:38	08:51 15:38 10:43 (C13)	10:10 (C13) 10:43 (C13)	15	
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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	07:14 16:45	08:19 15:48	08:51 15:44	10:10 (C13)		
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30	08:18 16:41	05:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 18:56	07:15 16:40	07:18 15:46	07:18 15:46	08:22 15:46	10:11 (C13)			
31	08:17 16:43	05:51 19:51	04:37 21:51	04:37 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 16:38	07:20 15:47	07:20 15:47	08:23 15:47	10:12 (C13)			
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216	1046 (C13)		
Total, worst case	817											1051			
Sun reduction	0.13										0.08	0.07			
Oper. time red.	0.98										0.98	0.98			
Wind dir. red.	0.61										0.61	0.61			
Total reduction	0.08										0.05	0.04			
Total, real	65										22	44			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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		10:18 (C13)	08:15	10:28 (C13)	07:11	06:49	05:33	04:36	04:30	05:16	06:17	07:17	07:23	08:24
	15:48	36	10:54 (C13)	16:45	11:03 (C13)	17:48	19:53	20:55	21:53	22:09	21:28	20:14	18:54	16:36	15:45
2	08:50		10:18 (C13)	08:13	10:29 (C13)	07:08	06:46	05:30	04:35	04:31	05:18	06:19	07:19	07:25	08:26
	15:49	37	10:55 (C13)	16:47	11:02 (C13)	17:50	19:55	20:57	21:54	22:09	21:26	20:11	18:51	16:34	15:44
3	08:50		10:18 (C13)	08:11	10:31 (C13)	07:06	06:43	05:28	04:34	04:32	05:19	06:21	07:21	07:27	08:28
	15:51	37	10:55 (C13)	16:50	11:01 (C13)	17:52	19:57	21:00	21:55	22:08	21:24	20:09	18:48	16:32	15:43
4	08:50		10:18 (C13)	08:09	10:33 (C13)	07:03	06:41	05:26	04:33	04:33	05:21	06:23	07:23	07:29	08:29
	15:52	37	10:55 (C13)	16:52	11:00 (C13)	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:46	16:29	15:42
5	08:49		10:19 (C13)	08:07	10:35 (C13)	07:00	06:38	05:23	04:32	04:34	05:23	06:25	07:25	07:31	08:31
	15:53	38	10:57 (C13)	16:54	11:08 (C13)	17:56	20:01	21:04	21:58	22:07	21:20	20:03	18:43	16:27	15:42
6	08:49		10:19 (C13)	08:05	10:36 (C13)	06:58	06:35	05:21	04:31	04:35	05:25	06:27	07:27	07:33	08:32
	15:55	38	10:57 (C13)	16:56	11:05 (C13)	17:58	20:03	21:06	21:59	22:06	21:17	20:01	18:40	16:25	15:41
7	08:48		10:19 (C13)	08:03	10:40 (C13)	06:55	06:33	05:19	04:30	04:36	05:27	06:29	07:30	07:36	08:34
	15:56	39	10:58 (C13)	16:59	11:05 (C13)	18:00	20:05	21:08	22:00	22:05	21:15	19:58	18:38	16:23	15:40
8	08:48		10:19 (C13)	08:01	10:52 (C13)	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:32	07:38	08:35
	15:58	40	10:59 (C13)	17:01	11:03 (C13)	18:03	20:08	21:10	22:01	22:04	21:13	19:55	18:35	16:21	15:40
9	08:47		10:19 (C13)	07:58	10:50 (C13)	06:50	06:28	05:15	04:28	04:38	05:31	06:33	07:34	07:40	08:37
	15:59	40	10:59 (C13)	17:03	11:05 (C13)	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:32	16:19	15:39
10	08:46		10:19 (C13)	07:56	10:51 (C13)	06:47	06:25	05:13	04:28	04:39	05:33	06:35	07:36	07:42	08:38
	16:01	41	11:00 (C13)	17:05	11:07 (C13)	18:07	20:12	21:14	22:03	22:02	21:08	19:50	18:30	16:17	15:39
11	08:45		10:20 (C13)	07:54	10:53 (C13)	06:45	06:22	05:11	04:27	04:41	05:35	06:37	07:38	07:44	08:39
	16:03	41	11:01 (C13)	17:08	11:09 (C13)	18:09	20:14	21:16	22:04	22:01	21:06	19:47	18:27	16:15	15:38
12	08:44		10:20 (C13)	07:52	10:54 (C13)	06:42	06:20	05:08	04:27	04:42	05:37	06:39	07:40	07:46	08:40
	16:04	42	11:02 (C13)	17:10	11:11 (C13)	18:11	20:16	21:18	22:05	22:00	21:04	19:45	18:25	16:13	15:38
13	08:43		10:19 (C13)	07:49	10:56 (C13)	06:40	06:17	05:06	04:26	04:43	05:39	06:41	07:42	07:49	08:42
	16:06	42	11:01 (C13)	17:12	11:13 (C13)	18:13	20:18	21:20	22:06	22:02	21:59	21:02	19:42	18:22	16:11
14	08:42		10:20 (C13)	07:47	10:57 (C13)	06:37	06:14	05:04	04:26	04:45	05:41	06:43	07:44	07:51	08:43
	16:08	42	11:02 (C13)	17:14	11:15 (C13)	18:15	20:20	21:22	22:07	21:58	20:59	19:39	18:19	16:09	15:40
15	08:41		10:19 (C13)	07:45	10:58 (C13)	06:34	06:12	05:03	04:26	04:46	05:43	06:45	07:46	07:53	08:44
	16:10	43	11:02 (C13)	17:17	11:18 (C13)	18:18	20:22	21:24	22:07	21:57	20:57	19:37	18:17	16:08	15:38
16	08:40		10:20 (C13)	07:43	10:59 (C13)	06:32	06:09	05:01	04:25	04:48	05:45	06:47	07:48	07:55	08:45
	16:12	43	11:03 (C13)	17:19	11:20 (C13)	18:20	20:24	21:25	22:08	21:55	20:54	19:34	18:14	16:06	15:38
17	08:39		10:21 (C13)	07:40	10:59 (C13)	06:29	06:07	04:59	04:25	04:49	05:47	06:49	07:50	07:57	08:46
	16:14	43	11:04 (C13)	17:21	11:21 (C13)	18:22	20:26	21:27	22:08	21:54	20:52	19:31	18:12	16:04	15:38
18	08:37		10:21 (C13)	07:38	10:59 (C13)	06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:52	07:59	08:46
	16:16	43	11:04 (C13)	17:23	11:22 (C13)	18:24	20:28	21:29	22:09	21:52	20:50	19:29	18:09	16:02	15:38
19	08:36		10:21 (C13)	07:36	10:59 (C13)	06:24	06:02	04:55	04:25	04:52	05:51	06:53	07:55	08:01	08:47
	16:18	43	11:04 (C13)	17:26	11:23 (C13)	18:26	20:30	21:31	22:09	21:51	20:47	19:26	18:07	16:01	15:38
20	08:35		10:22 (C13)	07:33	10:59 (C13)	06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:03	08:48
	16:20	43	11:05 (C13)	17:28	11:24 (C13)	18:28	20:33	21:33	22:10	21:49	20:45	19:23	18:04	15:59	15:39
21	08:33		10:22 (C13)	07:31	10:59 (C13)	06:18	05:57	04:52	04:25	04:56	05:55	06:57	07:59	08:05	08:48
	16:22	43	11:05 (C13)	17:30	11:25 (C13)	18:30	20:35	21:35	22:10	21:48	20:42	19:20	18:02	15:58	15:39
22	08:32		10:22 (C13)	07:28	10:59 (C13)	06:16	05:54	04:50	04:25	04:57	05:57	06:59	08:01	08:07	08:49
	16:24	43	11:05 (C13)	17:32	11:26 (C13)	18:32	20:37	21:37	22:10	21:46	20:40	19:18	17:59	15:56	15:39
23	08:30		10:22 (C13)	07:26	10:59 (C13)	06:13	05:52	04:48	04:26	04:59	05:59	07:01	08:03	08:09	08:50
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24	08:29		10:23 (C13)	07:23	10:59 (C13)	06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:11	08:50
	16:28	43	11:06 (C13)	17:37	11:28 (C13)	18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:55	15:53	15:41
25	08:27		10:24 (C13)	07:21	10:59 (C13)	06:07	05:47	04:45	04:26	05:03	06:03	07:05	08:07	08:13	08:50
	16:30	42	11:06 (C13)	17:39	11:29 (C13)	18:38	20:43	21:42	22:10	21:41	20:32	19:10	17:52	15:52	15:41
26	08:26		10:24 (C13)	07:18	10:59 (C13)	06:05	05:44	04:44	04:27	05:04	06:05	07:07	08:09	08:15	08:51
	16:32	42	11:06 (C13)	17:41	11:30 (C13)	18:41	20:45	21:43	22:10	21:39	20:30	19:07	17:50	15:51	15:42
27	08:24		10:25 (C13)	07:16	10:59 (C13)	06:02	05:42	04:42	04:27	05:06	06:07	07:09	08:11	08:17	08:51
	16:34	41	11:06 (C13)	17:43	11:31 (C13)	18:43	20:47	21:45	22:10	21:38	20:27	19:04	17:47	15:49	15:43
28	08:22		10:25 (C13)	07:13	10:59 (C13)	05:59	05:40	04:41	04:28	05:08	06:09	07:11	08:13	08:19	08:51
	16:36	40	11:05 (C13)	17:45	11:32 (C13)	18:45	20:49	21:47	22:10	21:36	20:24	19:02	17:45	15:48	15:44
29	08:20		10:26 (C13)		10:59 (C13)	06:57	05:37	04:40	04:29	05:10	06:11	07:13	08:15	08:21	08:51
	16:39	39	11:05 (C13)		11:33 (C13)	18:47	20:51	21:48	22:10	21:34	20:22	18:59	17:43	15:47	15:45
30	08:18		10:27 (C13)		10:59 (C13)	06:54	05:35	04:38	04:29	05:12	06:13	07:15	08:17	08:22	08:51
	16:41	38	11:05 (C13)		11:34 (C13)	18:49	20:53	21:50	22:09	21:32	20:19	18:56	17:40	15:46	15:46
31	08:17		10:28 (C13)		10:59 (C13)	06:51		04:37		05:14	06:15		07:20		08:51
	16:43	36	11:04 (C13)		11:35 (C13)	18:51		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		1258		179									1017		1108
Sun reduction		0.13		0.20									0.08		0.07
Oper. time red.		0.98		0.98									0.98		0.98
Wind dir. red.		0.61		0.61									0.61		0.61
Total reduction		0.08		0.12									0.05		0.04
Total, real		100		22									50		47

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 24	09:44 (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 09:57 (C13)
2	08:51 15:49 25	09:44 (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 09:57 (C13)
3	08:50 15:51 25	09:44 (C13) 10:09 (C13) 16:50	08:11 07:06 17:52	08:09 07:03 19:57	05:26 21:00 21:55	04:33 22:08 21:55	04:32 22:08 21:24	05:19 22:08 21:24	06:21 22:08 21:24	07:21 22:08 18:48	07:27 22:08 16:32	08:28 22:08 15:43
4	08:50 15:52 26	09:44 (C13) 10:10 (C13) 16:52	08:09 07:03 17:54	08:09 07:03 19:59	05:26 21:02 21:57	04:33 22:07 21:57	04:33 22:07 21:22	05:21 22:07 21:22	06:23 22:07 21:22	07:23 22:07 18:46	07:29 22:07 16:29	08:29 22:07 15:42
5	08:49 15:53 26	09:45 (C13) 10:11 (C13) 16:54	08:07 07:01 17:56	08:07 07:01 19:59	05:23 21:04 21:58	04:32 22:07 21:58	04:34 22:07 21:20	05:23 22:07 21:20	06:25 22:07 21:20	07:25 22:07 18:43	07:31 22:07 16:27	08:31 22:07 15:42
6	08:49 15:55 27	09:45 (C13) 10:12 (C13) 16:56	08:05 07:58 17:58	08:05 07:58 19:59	05:21 21:06 21:59	04:31 22:06 21:59	04:35 22:06 21:17	05:25 22:06 21:17	06:27 22:06 21:17	07:27 22:06 18:40	07:33 22:06 16:25	08:32 22:06 15:41
7	08:48 15:56 27	09:45 (C13) 10:12 (C13) 16:59	08:03 07:51 18:01	08:03 07:51 19:59	05:19 21:08 22:00	04:30 22:05 22:00	04:36 22:05 21:15	05:27 22:05 21:15	06:29 22:05 21:15	07:30 22:05 18:38	07:36 22:05 16:23	08:34 22:05 15:40
8	08:48 15:58 28	09:45 (C13) 10:13 (C13) 17:01	08:01 07:49 18:03	08:01 07:49 19:59	05:17 21:10 22:01	04:29 22:04 22:01	04:37 22:04 21:13	05:29 22:04 21:13	06:31 22:04 21:13	07:32 22:04 18:35	07:38 22:04 16:21	08:35 22:04 15:40
9	08:47 15:59 28	09:45 (C13) 10:13 (C13) 17:03	07:58 07:46 18:05	07:58 07:46 19:59	05:15 21:12 22:02	04:28 22:03 22:02	04:38 22:03 21:11	05:31 22:03 21:11	06:33 22:03 21:11	07:34 22:03 18:32	07:40 22:03 16:19	08:37 22:03 15:39
10	08:46 16:01 29	09:45 (C13) 10:14 (C13) 17:05	07:56 07:44 18:07	07:56 07:44 19:59	05:13 21:14 22:03	04:28 22:03 22:03	04:39 22:03 21:11	05:33 22:03 21:11	06:35 22:03 21:11	07:36 22:03 18:32	07:42 22:03 16:19	08:38 22:03 15:39
11	08:45 16:03 29	09:46 (C13) 10:15 (C13) 17:08	07:54 07:42 18:09	07:54 07:42 19:59	05:11 21:16 22:04	04:27 22:04 22:04	04:41 22:04 21:06	05:35 22:04 21:06	06:37 22:04 21:06	07:38 22:04 18:27	07:44 22:04 16:15	08:39 22:04 15:38
12	08:44 16:04 30	09:46 (C13) 10:16 (C13) 17:10	07:52 07:40 18:11	07:52 07:40 19:59	05:08 21:18 22:05	04:27 22:05 22:05	04:42 22:05 21:04	05:37 22:05 21:04	06:39 22:05 21:04	07:40 22:05 18:25	07:46 22:05 16:13	08:40 22:05 15:38
13	08:43 16:06 30	09:46 (C13) 10:16 (C13) 17:12	07:50 07:38 18:13	07:50 07:38 19:59	05:06 21:20 22:06	04:26 22:06 22:06	04:43 22:06 21:02	05:39 22:06 21:02	06:41 22:06 21:02	07:42 22:06 18:22	07:49 22:06 16:11	08:42 22:06 15:38
14	08:42 16:08 30	09:46 (C13) 10:16 (C13) 17:14	07:47 07:35 18:15	07:47 07:35 19:59	05:04 21:22 22:07	04:26 22:07 22:07	04:45 22:07 21:58	05:41 22:07 21:58	06:43 22:07 21:58	07:44 22:07 18:20	07:51 22:07 16:09	08:43 22:07 15:38
15	08:41 16:10 30	09:47 (C13) 10:17 (C13) 17:17	07:45 07:33 18:18	07:45 07:33 19:59	05:03 21:24 22:07	04:26 22:07 22:07	04:46 22:07 21:57	05:43 22:07 21:57	06:45 22:07 21:57	07:46 22:07 18:17	07:53 22:07 16:08	08:44 22:07 15:38
16	08:40 16:12 30	09:47 (C13) 10:17 (C13) 17:19	07:43 07:31 18:20	07:43 07:31 19:59	05:01 21:26 22:08	04:25 22:08 22:08	04:48 22:08 21:55	05:45 22:08 21:55	06:47 22:08 21:55	07:48 22:08 18:14	07:55 22:08 16:06	08:45 22:08 15:38
17	08:39 16:14 31	09:47 (C13) 10:18 (C13) 17:21	07:40 07:28 18:22	07:40 07:28 19:59	04:59 21:27 22:09	04:25 22:09 22:09	04:49 22:09 21:54	05:47 22:09 21:54	06:49 22:09 21:54	07:50 22:09 18:12	07:57 22:09 16:04	08:46 22:09 15:38
18	08:38 16:16 31	09:47 (C13) 10:18 (C13) 17:23	07:38 07:26 18:24	07:38 07:26 19:59	04:57 21:29 22:09	04:25 22:09 22:09	04:51 22:09 21:52	05:49 22:09 21:52	06:51 22:09 21:52	07:52 22:09 18:09	07:59 22:09 16:02	08:46 22:09 15:38
19	08:36 16:18 31	09:47 (C13) 10:18 (C13) 17:26	07:36 07:24 18:26	07:36 07:24 19:59	04:55 21:31 22:09	04:25 22:09 22:09	04:52 22:09 21:51	05:51 22:09 21:51	06:53 22:09 21:51	07:55 22:09 18:07	08:01 22:09 16:01	08:47 22:09 15:38
20	08:35 16:20 29	09:49 (C13) 10:18 (C13) 17:28	07:33 07:21 18:28	07:33 07:21 19:59	04:53 21:33 22:10	04:25 22:10 22:10	04:54 22:10 21:49	05:53 22:10 21:49	06:55 22:10 21:49	07:57 22:10 18:04	08:03 22:10 15:59	08:48 22:10 15:39
21	08:33 16:22 29	09:49 (C13) 10:18 (C13) 17:30	07:31 07:19 18:30	07:31 07:19 19:59	04:52 21:35 22:10	04:25 22:10 22:10	04:56 22:10 21:48	05:55 22:10 21:48	06:57 22:10 21:48	07:59 22:10 18:02	08:05 22:10 15:58	08:49 22:10 15:39
22	08:32 16:24 29	09:49 (C13) 10:18 (C13) 17:32	07:28 07:16 18:32	07:28 07:16 19:59	04:50 21:37 22:10	04:25 22:10 22:10	04:57 22:10 21:46	05:57 22:10 21:46	06:59 22:10 21:46	08:01 22:10 17:59	08:07 22:10 15:56	08:49 22:10 15:39
23	08:30 16:26 28	09:50 (C13) 10:18 (C13) 17:34	07:26 07:14 18:34	07:26 07:14 19:59	04:48 21:38 22:10	04:26 22:10 22:10	04:59 22:10 21:45	05:59 22:10 21:45	07:01 22:10 17:57	08:03 22:10 17:57	08:09 22:10 15:55	08:50 22:10 15:40
24	08:29 16:28 27	09:51 (C13) 10:18 (C13) 17:37	07:23 07:11 18:36	07:23 07:11 19:59	04:47 21:40 22:10	04:26 22:10 22:10	05:01 22:10 21:43	06:01 22:10 21:43	07:03 22:10 17:55	08:05 22:10 17:55	08:11 22:10 15:53	08:51 22:10 15:40
25	08:27 16:30 26	09:52 (C13) 10:18 (C13) 17:39	07:21 07:09 18:38	07:21 07:09 19:59	04:45 21:42 22:10	04:26 22:10 22:10	05:03 22:10 21:41	06:03 22:10 21:41	07:05 22:10 17:52	08:07 22:10 17:52	08:13 22:10 15:52	08:50 22:10 15:41
26	08:26 16:32 24	09:53 (C13) 10:17 (C13) 17:41	07:18 07:06 18:41	07:18 07:06 19:59	04:44 21:43 22:10	04:27 22:10 22:10	05:04 22:10 21:39	06:05 22:10 21:39	07:07 22:10 17:50	08:09 22:10 17:50	08:15 22:10 15:51	08:51 22:10 15:42
27	08:24 16:34 23	09:54 (C13) 10:17 (C13) 17:43	07:16 07:04 18:43	07:16 07:04 19:59	04:42 21:45 22:10	04:27 22:10 22:10	05:06 22:10 21:38	06:07 22:10 21:38	07:09 22:10 17:47	08:11 22:10 17:47	08:17 22:10 15:49	08:51 22:10 15:43
28	08:22 16:36 21	09:55 (C13) 10:16 (C13) 17:45	07:13 07:01 18:45	07:13 07:01 19:59	04:41 21:47 22:10	04:28 22:10 22:10	05:08 22:10 21:36	06:09 22:10 21:36	07:11 22:10 17:45	08:13 22:10 17:45	08:19 22:10 15:48	08:51 22:10 15:44
29	08:20 16:39 18	09:57 (C13) 10:15 (C13) 17:47	07:11 06:59 18:47	07:11 06:59 19:59	04:40 21:48 22:10	04:29 22:10 22:10	05:10 22:10 21:34	06:11 22:10 21:34	07:13 22:10 17:43	08:15 22:10 17:43	08:21 22:10 15:47	08:51 22:10 15:45
30	08:19 16:41 14	09:59 (C13) 10:13 (C13) 17:49	07:09 06:57 18:49	07:09 06:57 19:59	04:38 21:50 22:09	04:29 22:09 22:09	05:12 22:09 21:32	06:13 22:09 21:32	07:15 22:09 18:56	08:17 22:09 18:56	08:23 22:09 15:46	08:51 22:09 15:46
31	08:17 16:43 8	10:02 (C13) 10:10 (C13)	07:07 06:55	07:07 06:55	04:37 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 16:38	08:24 15:47	08:30 15:47	08:51 15:47
Potential sun hours	235		266	366	426	508	529	469	385	324	247	216
Total, worst case		813									517	727
Sun reduction		0.13									0.08	0.07
Oper. time red.		0.98									0.98	0.98
Wind dir. red.		0.61									0.61	0.61
Total reduction		0.08									0.05	0.04
Total, real		65									26	31

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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) 11:33 (C17) 16:45	08:15 11:33 (C17) 16:45	07:11 11:33 (C17) 17:47	06:49 11:33 (C17) 17:47	05:32 11:33 (C17) 17:47	04:35 11:33 (C17) 17:47	04:30 11:33 (C17) 17:47	05:15 11:33 (C17) 17:47	06:17 11:33 (C17) 17:47	07:17 11:33 (C17) 17:47	07:23 11:33 (C17) 17:47	08:24 15:45 43	10:37 (C17) 11:20 (C17) 11:20 (C17)
2	08:51 15:49 43	10:51 (C17) 11:34 (C17) 16:47	08:13 11:34 (C17) 16:47	07:08 11:34 (C17) 17:50	06:46 11:34 (C17) 17:50	05:30 11:34 (C17) 17:50	04:34 11:34 (C17) 17:50	04:30 11:34 (C17) 17:50	05:17 11:34 (C17) 17:50	06:19 11:34 (C17) 17:50	07:19 11:34 (C17) 17:50	07:25 11:34 (C17) 17:50	08:26 15:44 43	10:37 (C17) 11:20 (C17) 11:20 (C17)
3	08:50 15:50 43	10:51 (C17) 11:34 (C17) 16:49	08:11 11:34 (C17) 16:49	07:06 11:34 (C17) 17:52	06:43 11:34 (C17) 17:52	05:28 11:34 (C17) 17:52	04:33 11:34 (C17) 17:52	04:31 11:34 (C17) 17:52	05:19 11:34 (C17) 17:52	06:21 11:34 (C17) 17:52	07:21 11:34 (C17) 17:52	07:27 11:34 (C17) 17:52	08:28 15:43 43	10:38 (C17) 11:21 (C17) 11:21 (C17)
4	08:50 15:52 43	10:51 (C17) 11:34 (C17) 16:52	08:09 11:34 (C17) 16:52	07:03 11:34 (C17) 17:54	06:41 11:34 (C17) 17:54	05:25 11:34 (C17) 17:54	04:32 11:34 (C17) 17:54	04:32 11:34 (C17) 17:54	05:21 11:34 (C17) 17:54	06:23 11:34 (C17) 17:54	07:23 11:34 (C17) 17:54	07:29 11:34 (C17) 17:54	08:29 15:42 43	10:37 (C17) 11:20 (C17) 11:20 (C17)
5	08:49 15:53 43	10:52 (C17) 11:35 (C17) 16:54	08:07 11:35 (C17) 16:54	07:00 11:35 (C17) 17:56	06:38 11:35 (C17) 17:56	05:23 11:35 (C17) 17:56	04:31 11:35 (C17) 17:56	04:33 11:35 (C17) 17:56	05:22 11:35 (C17) 17:56	06:25 11:35 (C17) 17:56	07:25 11:35 (C17) 17:56	07:31 11:35 (C17) 17:56	08:31 15:41 43	10:38 (C17) 11:21 (C17) 11:21 (C17)
6	08:49 15:54 43	10:53 (C17) 11:36 (C17) 16:56	08:05 11:36 (C17) 16:56	06:58 11:36 (C17) 17:58	06:35 11:36 (C17) 17:58	05:21 11:36 (C17) 17:58	04:30 11:36 (C17) 17:58	04:34 11:36 (C17) 17:58	05:25 11:36 (C17) 17:58	06:27 11:36 (C17) 17:58	07:27 11:36 (C17) 17:58	07:33 11:36 (C17) 17:58	08:32 15:41 43	10:39 (C17) 11:22 (C17) 11:22 (C17)
7	08:48 15:56 43	10:53 (C17) 11:36 (C17) 16:58	08:03 11:36 (C17) 16:58	06:55 11:36 (C17) 18:00	06:33 11:36 (C17) 18:00	05:19 11:36 (C17) 18:00	04:30 11:36 (C17) 18:00	04:35 11:36 (C17) 18:00	05:27 11:36 (C17) 18:00	06:29 11:36 (C17) 18:00	07:29 11:36 (C17) 18:00	07:36 11:36 (C17) 18:00	08:34 15:40 43	10:38 (C17) 11:21 (C17) 11:21 (C17)
8	08:48 15:58 43	10:53 (C17) 11:36 (C17) 17:01	08:00 11:36 (C17) 17:01	06:53 11:36 (C17) 18:02	06:30 11:36 (C17) 18:02	05:17 11:36 (C17) 18:02	04:29 11:36 (C17) 18:02	04:37 11:36 (C17) 18:02	05:29 11:36 (C17) 18:02	06:31 11:36 (C17) 18:02	07:31 11:36 (C17) 18:02	07:38 11:36 (C17) 18:02	08:35 15:39 43	10:39 (C17) 11:22 (C17) 11:22 (C17)
9	08:47 15:59 43	10:54 (C17) 11:37 (C17) 17:03	07:58 11:37 (C17) 17:03	06:50 11:37 (C17) 18:05	06:27 11:37 (C17) 18:05	05:14 11:37 (C17) 18:05	04:28 11:37 (C17) 18:05	04:38 11:37 (C17) 18:05	05:31 11:37 (C17) 18:05	06:33 11:37 (C17) 18:05	07:34 11:37 (C17) 18:05	07:40 11:37 (C17) 18:05	08:37 15:39 43	10:40 (C17) 11:23 (C17) 11:23 (C17)
10	08:46 16:01 43	10:54 (C17) 11:37 (C17) 17:05	07:56 11:37 (C17) 17:05	06:47 11:37 (C17) 18:07	06:25 11:37 (C17) 18:07	05:12 11:37 (C17) 18:07	04:28 11:37 (C17) 18:07	04:39 11:37 (C17) 18:07	05:33 11:37 (C17) 18:07	06:35 11:37 (C17) 18:07	07:36 11:37 (C17) 18:07	07:42 11:37 (C17) 18:07	08:38 15:39 43	10:40 (C17) 11:23 (C17) 11:23 (C17)
11	08:45 16:02 43	10:55 (C17) 11:38 (C17) 17:07	07:54 11:38 (C17) 17:07	06:45 11:38 (C17) 18:09	06:22 11:38 (C17) 18:09	05:10 11:38 (C17) 18:09	04:27 11:38 (C17) 18:09	04:40 11:38 (C17) 18:09	05:35 11:38 (C17) 18:09	06:37 11:38 (C17) 18:09	07:38 11:38 (C17) 18:09	07:44 11:38 (C17) 18:09	08:39 15:38 43	10:40 (C17) 11:23 (C17) 11:23 (C17)
12	08:44 16:04 42	10:56 (C17) 11:38 (C17) 17:10	07:52 11:38 (C17) 17:10	06:42 11:38 (C17) 18:11	06:19 11:38 (C17) 18:11	05:08 11:38 (C17) 18:11	04:26 11:38 (C17) 18:11	04:42 11:38 (C17) 18:11	05:37 11:38 (C17) 18:11	06:39 11:38 (C17) 18:11	07:40 11:38 (C17) 18:11	07:46 11:38 (C17) 18:11	08:40 15:38 43	10:41 (C17) 11:24 (C17) 11:24 (C17)
13	08:43 16:06 42	10:55 (C17) 11:37 (C17) 17:12	07:49 11:37 (C17) 17:12	06:39 11:37 (C17) 18:13	06:17 11:37 (C17) 18:13	05:06 11:37 (C17) 18:13	04:26 11:37 (C17) 18:13	04:43 11:37 (C17) 18:13	05:39 11:37 (C17) 18:13	06:41 11:37 (C17) 18:13	07:42 11:37 (C17) 18:13	07:49 11:37 (C17) 18:13	08:42 15:38 42	10:42 (C17) 11:24 (C17) 11:24 (C17)
14	08:42 16:08 42	10:56 (C17) 11:38 (C17) 17:14	07:47 11:38 (C17) 17:14	06:37 11:38 (C17) 18:15	06:14 11:38 (C17) 18:15	05:04 11:38 (C17) 18:15	04:26 11:38 (C17) 18:15	04:44 11:38 (C17) 18:15	05:41 11:38 (C17) 18:15	06:43 11:38 (C17) 18:15	07:44 11:38 (C17) 18:15	07:51 11:38 (C17) 18:15	08:43 15:38 43	10:42 (C17) 11:25 (C17) 11:25 (C17)
15	08:41 16:10 42	10:57 (C17) 11:39 (C17) 17:16	07:45 11:39 (C17) 17:16	06:34 11:39 (C17) 18:17	06:12 11:39 (C17) 18:17	05:02 11:39 (C17) 18:17	04:25 11:39 (C17) 18:17	04:46 11:39 (C17) 18:17	05:43 11:39 (C17) 18:17	06:45 11:39 (C17) 18:17	07:46 11:39 (C17) 18:17	07:53 11:39 (C17) 18:17	08:44 15:37 43	10:42 (C17) 11:25 (C17) 11:25 (C17)
16	08:40 16:12 41	10:57 (C17) 11:38 (C17) 17:19	07:43 11:38 (C17) 17:19	06:31 11:38 (C17) 18:19	06:09 11:38 (C17) 18:19	05:00 11:38 (C17) 18:19	04:25 11:38 (C17) 18:19	04:47 11:38 (C17) 18:19	05:45 11:38 (C17) 18:19	06:47 11:38 (C17) 18:19	07:48 11:38 (C17) 18:19	07:55 11:38 (C17) 18:19	08:45 15:37 42	10:43 (C17) 11:26 (C17) 11:26 (C17)
17	08:39 16:13 40	10:59 (C17) 11:39 (C17) 17:21	07:40 11:39 (C17) 17:21	06:29 11:39 (C17) 18:22	06:07 11:39 (C17) 18:22	04:58 11:39 (C17) 18:22	04:25 11:39 (C17) 18:22	04:49 11:39 (C17) 18:22	05:47 11:39 (C17) 18:22	06:49 11:39 (C17) 18:22	07:50 11:39 (C17) 18:22	07:57 11:39 (C17) 18:22	08:46 15:37 42	10:44 (C17) 11:26 (C17) 11:26 (C17)
18	08:37 16:15 39	10:59 (C17) 11:38 (C17) 17:23	07:38 11:38 (C17) 17:23	06:26 11:38 (C17) 18:24	06:04 11:38 (C17) 18:24	04:57 11:38 (C17) 18:24	04:25 11:38 (C17) 18:24	04:51 11:38 (C17) 18:24	05:49 11:38 (C17) 18:24	06:51 11:38 (C17) 18:24	07:52 11:38 (C17) 18:24	07:59 11:38 (C17) 18:24	08:46 15:38 42	10:44 (C17) 11:26 (C17) 11:26 (C17)
19	08:36 16:17 39	10:59 (C17) 11:38 (C17) 17:25	07:35 11:38 (C17) 17:25	06:23 11:38 (C17) 18:26	06:01 11:38 (C17) 18:26	04:55 11:38 (C17) 18:26	04:25 11:38 (C17) 18:26	04:52 11:38 (C17) 18:26	05:51 11:38 (C17) 18:26	06:53 11:38 (C17) 18:26	07:54 11:38 (C17) 18:26	08:01 11:38 (C17) 18:26	08:47 15:38 42	10:45 (C17) 11:27 (C17) 11:27 (C17)
20	08:35 16:19 37	11:01 (C17) 11:38 (C17) 17:28	07:33 11:38 (C17) 17:28	06:21 11:38 (C17) 18:28	05:59 11:38 (C17) 18:28	04:53 11:38 (C17) 18:28	04:25 11:38 (C17) 18:28	04:54 11:38 (C17) 18:28	05:53 11:38 (C17) 18:28	06:55 11:38 (C17) 18:28	07:57 11:38 (C17) 18:28	08:03 11:38 (C17) 18:28	08:48 15:37 42	10:45 (C17) 11:27 (C17) 11:27 (C17)
21	08:33 16:21 37	11:01 (C17) 11:38 (C17) 17:30	07:31 11:38 (C17) 17:30	06:18 11:38 (C17) 18:30	05:56 11:38 (C17) 18:30	04:51 11:38 (C17) 18:30	04:25 11:38 (C17) 18:30	04:55 11:38 (C17) 18:30	05:55 11:38 (C17) 18:30	06:57 11:38 (C17) 18:30	07:59 11:38 (C17) 18:30	08:05 11:38 (C17) 18:30	08:49 15:37 42	10:46 (C17) 11:28 (C17) 11:28 (C17)
22	08:32 16:23 35	11:02 (C17) 11:37 (C17) 17:32	07:28 11:37 (C17) 17:32	06:15 11:37 (C17) 18:32	05:54 11:37 (C17) 18:32	04:50 11:37 (C17) 18:32	04:25 11:37 (C17) 18:32	04:57 11:37 (C17) 18:32	05:57 11:37 (C17) 18:32	06:59 11:37 (C17) 18:32	08:01 11:37 (C17) 18:32	08:07 11:37 (C17) 18:32	08:49 15:37 42	10:46 (C17) 11:28 (C17) 11:28 (C17)
23	08:30 16:26 33	11:03 (C17) 11:36 (C17) 17:34	07:26 11:36 (C17) 17:34	06:13 11:36 (C17) 18:34	05:51 11:36 (C17) 18:34	04:48 11:36 (C17) 18:34	04:25 11:36 (C17) 18:34	04:59 11:36 (C17) 18:34	05:59 11:36 (C17) 18:34	07:01 11:36 (C17) 18:34	08:03 11:36 (C17) 18:34	08:09 11:36 (C17) 18:34	08:50 15:40 42	10:47 (C17) 11:29 (C17) 11:29 (C17)
24	08:29 16:28 31	11:05 (C17) 11:36 (C17) 17:36	07:23 11:36 (C17) 17:36	06:10 11:36 (C17) 18:36	05:49 11:36 (C17) 18:36	04:46 11:36 (C17) 18:36	04:26 11:36 (C17) 18:36	05:01 11:36 (C17) 18:36	06:01 11:36 (C17) 18:36	07:03 11:36 (C17) 18:36	08:05 11:36 (C17) 18:36	08:11 11:36 (C17) 18:36	08:50 15:40 42	10:47 (C17) 11:29 (C17) 11:29 (C17)
25	08:27 16:30 30	11:06 (C17) 11:36 (C17) 17:39	07:21 11:36 (C17) 17:39	06:07 11:36 (C17) 18:38	05:47 11:36 (C17) 18:38	04:45 11:36 (C17) 18:38	04:26 11:36 (C17) 18:38	05:02 11:36 (C17) 18:38	06:03 11:36 (C17) 18:38	07:05 11:36 (C17) 18:38	08:07 11:36 (C17) 18:38	08:13 11:36 (C17) 18:38	08:50 15:41 42	10:47 (C17) 11:29 (C17) 11:29 (C17)
26	08:26 16:32 27	11:07 (C17) 11:34 (C17) 17:41	07:18 11:34 (C17) 17:41	06:05 11:34 (C17) 18:40	05:44 11:34 (C17) 18:40	04:43 11:34 (C17) 18:40	04:26 11:34 (C17) 18:40	05:04 11:34 (C17) 18:40	06:05 11:34 (C17) 18:40	07:07 11:34 (C17) 18:40	08:09 11:34 (C17) 18:40	08:15 11:34 (C17) 18:40	08:51 15:42 43	10:47 (C17) 11:30 (C17) 11:30 (C17)
27	08:24 16:34 24	11:09 (C17) 11:33 (C17) 17:43	07:16 11:33 (C17) 17:43	06:02 11:33 (C17) 18:42	05:42 11:33 (C17) 18:42	04:42 11:33 (C17) 18:42	04:27 11:33 (C17) 18:42	05:06 11:33 (C17) 18:42	06:07 11:33 (C17) 18:42	07:09 11:33 (C17) 18:42	08:12 11:33 (C17) 18:42	08:17 11:33 (C17) 18:42	08:51 15:42 42	10:48 (C17) 11:30 (C17) 11:30 (C17)
28	08:22 16:36 20	11:11 (C17) 11:31 (C17) 17:45	07:13 11:31 (C17) 17:45	05:59 11:31 (C17) 18:45	05:39 11:31 (C17) 18:45	04:41 11:31 (C17) 18:45	04:28 11:31 (C17) 18:45	05:08 11:31 (C17) 18:45	06:09 11:31 (C17) 18:45	07:11 11:311				

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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) 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	06:54 (C14) 1	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	06:55 (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	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	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 21:08	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 16:06	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	06:59 (C14)	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	06:54 (C14) 11	06:47 (C14)	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	06:52 (C14) 15	06:49 (C14)	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	06:50 (C14) 19	06:51 (C14)	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	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:48 (C14) 21	06:53 (C14)	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 21:49	05:53 20:45	06:47 (C14) 23	06:55 (C14)	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	06:46 (C14) 24	06:57 (C14)	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	06:45 (C14) 26	06:59 (C14)	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	06:45 (C14) 26	07:01 (C14)	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	06:44 (C14) 27	07:03 (C14)	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	04:44 21:42	04:27 22:10	05:03 21:41	06:03 20:32	06:44 (C14) 27	07:05 (C14)	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	06:44 (C14) 27	07:07 (C14)	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	06:44 (C14) 26	07:09 (C14)	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	06:44 (C14) 25	07:11 (C14)	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:47	06:05 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	06:44 (C14) 24	07:13 (C14)	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:10 17:49	06:04 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	06:45 (C14) 22	07:15 (C14)	08:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:08 17:51	06:02 18:51	05:32 20:53	04:37 21:51	04:29 22:10	05:14 21:30	06:15 20:17	06:45 (C14) 20	07:16 (C14)	08:20 16:38	08:25 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216	
Total, worst case				388					364	30			
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				125				117		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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April	May	June
1	08:51		09:47 (C14)	08:15		07:11				06:49	05:33	04:36
	15:48	27	10:14 (C14)	16:45		17:48				19:53	20:55	21:53
2	08:50		09:48 (C14)	08:13		07:08				06:46	05:30	04:35
	15:49	28	10:16 (C14)	16:48		17:50				19:55	20:58	21:54
3	08:50		09:47 (C14)	08:11		07:06				06:43	05:28	04:34
	15:51	29	10:16 (C14)	16:50		17:52				19:57	21:00	21:55
4	08:50		09:47 (C14)	08:09		07:03				06:41	05:26	04:33
	15:52	29	10:16 (C14)	16:52		17:54				19:59	21:02	21:57
5	08:49		09:48 (C14)	08:07		07:01				06:38	05:23	04:32
	15:53	29	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	30	10:18 (C14)	16:56		17:58				20:03	21:06	21:59
7	08:48		09:49 (C14)	08:03		06:55				06:33	05:19	04:30
	15:56	29	10:18 (C14)	16:59		18:01				20:06	21:08	22:00
8	08:48		09:49 (C14)	08:01		06:53				06:30	05:17	04:29
	15:58	30	10:19 (C14)	17:01		18:03				20:08	21:10	22:01
9	08:47		09:49 (C14)	07:58		06:50			07:23 (C13)	06:28	05:15	04:29
	16:00	30	10:19 (C14)	17:03		18:05		7	07:30 (C13)	20:10	21:12	22:02
10	08:46		09:49 (C14)	07:56		06:47			07:18 (C13)	06:25	05:13	04:28
	16:01	31	10:20 (C14)	17:05		18:07		16	07:34 (C13)	20:12	21:14	22:03
11	08:45		09:50 (C14)	07:54		06:45			07:15 (C13)	06:22	05:11	04:27
	16:03	30	10:20 (C14)	17:08		18:09		20	07:35 (C13)	20:14	21:16	22:04
12	08:44		09:50 (C14)	07:52		06:42			07:14 (C13)	06:20	05:09	04:27
	16:05	31	10:21 (C14)	17:10		18:11		23	07:37 (C13)	20:16	21:18	22:05
13	08:43		09:50 (C14)	07:50		06:40			07:12 (C13)	06:17	05:07	04:26
	16:06	31	10:21 (C14)	17:12		18:13		26	07:38 (C13)	20:18	21:20	22:06
14	08:42		09:51 (C14)	07:47		06:37			07:11 (C13)	06:15	05:05	04:26
	16:08	30	10:21 (C14)	17:14		18:15		27	07:38 (C13)	20:20	21:22	22:07
15	08:41		09:52 (C14)	07:45		06:34			07:10 (C13)	06:12	05:03	04:26
	16:10	30	10:22 (C14)	17:17		18:18		30	07:40 (C13)	20:22	21:24	22:07
16	08:40		09:52 (C14)	07:43		06:32			07:09 (C13)	06:09	05:01	04:26
	16:12	30	10:22 (C14)	17:19		18:20		31	07:40 (C13)	20:24	21:26	22:08
17	08:39		09:53 (C14)	07:40		06:29			07:08 (C13)	06:07	04:59	04:25
	16:14	30	10:23 (C14)	17:21		18:22		31	07:39 (C13)	20:26	21:27	22:08
18	08:38		09:53 (C14)	07:38		06:26			07:07 (C13)	06:04	04:57	04:25
	16:16	29	10:22 (C14)	17:23		18:24		32	07:39 (C13)	20:28	21:29	22:09
19	08:36		09:53 (C14)	07:36		06:24			07:08 (C13)	06:02	04:55	04:25
	16:18	29	10:22 (C14)	17:26		18:26		31	07:39 (C13)	20:31	21:31	22:09
20	08:35		09:54 (C14)	07:33		06:21			07:07 (C13)	05:59	04:53	04:25
	16:20	29	10:23 (C14)	17:28		18:28		32	07:39 (C13)	20:33	21:33	22:10
21	08:33		09:55 (C14)	07:31		06:18			07:07 (C13)	05:57	04:52	04:25
	16:22	27	10:22 (C14)	17:30		18:30		31	07:38 (C13)	20:35	21:35	22:10
22	08:32		09:55 (C14)	07:28		06:16			07:08 (C13)	05:54	04:50	04:26
	16:24	27	10:22 (C14)	17:32		18:32		30	07:38 (C13)	20:37	21:37	22:10
23	08:30		09:56 (C14)	07:26		06:13			07:08 (C13)	05:52	04:48	04:26
	16:26	25	10:21 (C14)	17:34		18:34		28	07:36 (C13)	20:39	21:38	22:10
24	08:29		09:58 (C14)	07:23		06:10			07:08 (C13)	05:49	04:47	04:26
	16:28	23	10:21 (C14)	17:37		18:36		27	07:35 (C13)	20:41	21:40	22:10
25	08:27		09:59 (C14)	07:21		06:08			07:10 (C13)	05:47	04:45	04:26
	16:30	22	10:21 (C14)	17:39		18:38		24	07:34 (C13)	20:43	21:42	22:10
26	08:26		10:00 (C14)	07:18		06:05			07:10 (C13)	05:44	04:44	04:27
	16:32	20	10:20 (C14)	17:41		18:41		22	07:32 (C13)	20:45	21:43	22:10
27	08:24		10:02 (C14)	07:16		06:02			07:12 (C13)	05:42	04:42	04:27
	16:34	16	10:18 (C14)	17:43		18:43		17	07:29 (C13)	20:47	21:45	22:10
28	08:22		10:04 (C14)	07:13		05:59			07:15 (C13)	05:40	04:41	04:28
	16:37	12	10:16 (C14)	17:45		18:45		12	07:27 (C13)	20:49	21:47	22:10
29	08:20		10:09 (C14)			06:57				05:37	04:40	04:29
	16:39	3	10:12 (C14)			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		766				497						
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		61				124						

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:53 (C13)	07:23
	22:09	21:28	20:14	18:54	24 08:17 (C13)	16:36
2	04:31	05:18	06:19	07:19	07:54 (C13)	07:25
	22:09	21:26	20:11	18:51	21 08:15 (C13)	16:34
3	04:32	05:20	06:21	07:21	07:55 (C13)	07:27
	22:08	21:24	20:09	18:48	18 08:13 (C13)	16:32
4	04:33	05:21	06:23	07:23	07:58 (C13)	07:29
	22:07	21:22	20:06	18:46	11 08:09 (C13)	16:29
5	04:34	05:23	06:25	07:25		07:31
	22:07	21:20	20:03	18:43		16:27
6	04:35	05:25	06:27	07:28		07:33
	22:06	21:17	20:01	18:40		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	18:32		16:19
10	04:39	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	19:47	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	04:43	05:39	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	3	09:44 (C14)
	21:58	20:59	19:39	18:20		09:36 (C14)
15	04:46	05:43	06:45	07:46	12	09:48 (C14)
	21:57	20:57	19:37	18:17		09:34 (C14)
16	04:48	05:45	06:47	07:48	16	09:50 (C14)
	21:55	20:54	19:34	18:14		09:33 (C14)
17	04:49	05:47	06:49	07:50	19	09:52 (C14)
	21:54	20:52	19:31	18:12		09:32 (C14)
18	04:51	05:49	06:51	07:52	22	09:54 (C14)
	21:52	20:50	19:29	18:09		09:32 (C14)
19	04:53	05:51	06:53	07:55	23	09:55 (C14)
	21:51	20:47	19:26	18:07		09:31 (C14)
20	04:54	05:53	06:55	07:57	25	09:56 (C14)
	21:49	20:45	19:23	18:04		09:30 (C14)
21	04:56	05:55	06:57	07:59	27	09:57 (C14)
	21:48	20:42	19:21	18:02		09:30 (C14)
22	04:58	05:57	06:59	08:01	27	09:57 (C14)
	21:46	20:40	19:18	18:00		09:30 (C14)
23	04:59	05:59	07:01	08:03	29	09:59 (C14)
	21:45	20:37	19:15	17:57		09:30 (C14)
24	05:01	06:01	07:03	08:05	29	09:59 (C14)
	21:43	20:35	19:12	17:55		09:30 (C14)
25	05:03	06:03	07:05	07:07	29	09:59 (C14)
	21:41	20:32	19:10	16:52		09:30 (C14)
26	05:05	06:05	07:07	07:10	30	10:00 (C14)
	21:39	20:30	19:07	16:50		09:31 (C14)
27	05:06	06:07	07:09	07:12	30	10:01 (C14)
	21:38	20:27	19:04	16:48		09:31 (C14)
28	05:08	06:09	07:11	07:14	30	10:01 (C14)
	21:36	20:24	19:02	16:45		09:31 (C14)
29	05:10	06:11	07:13	07:16	31	10:02 (C14)
	21:34	20:22	18:59	16:43		09:31 (C14)
30	05:12	06:13	07:15	07:18	31	10:02 (C14)
	21:32	20:19	18:56	16:41		09:32 (C14)
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			425	74	443	851
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	0.61	0.61
Total reduction			0.26	0.16	0.05	0.04
Total, real			110	12	22	36

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 15:43
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 21:19	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	08:01 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 19:47	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 16:07	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 21:57	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 17:23	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	07:52 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	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	08:49 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	04:45 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	08:51 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	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 21:37	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	04:39 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March	April	May			June		
1	08:51		10:56 (C13)	08:15		07:11	06:49		05:32		06:18 (C1)	04:36		
	15:48	34	11:30 (C13)	16:45		17:48	19:53		20:55	20	06:38 (C1)	21:53		
2	08:50		10:57 (C13)	08:13		07:08	06:46		05:30		06:19 (C1)	04:35		
	15:49	34	11:31 (C13)	16:47		17:50	19:55		20:57	18	06:37 (C1)	21:54		
3	08:50		10:58 (C13)	08:11		07:06	06:43		05:28		06:20 (C1)	04:34		
	15:51	33	11:31 (C13)	16:50		17:52	19:57		21:00	16	06:36 (C1)	21:55		
4	08:50		10:58 (C13)	08:09		07:03	06:41		05:26		06:21 (C1)	04:33		
	15:52	33	11:31 (C13)	16:52		17:54	19:59		21:02	13	06:34 (C1)	21:57		
5	08:49		10:59 (C13)	08:07		07:00	06:38		05:23		06:23 (C1)	04:32		
	15:53	33	11:32 (C13)	16:54		17:56	20:01		21:04	9	06:32 (C1)	21:58		
6	08:49		11:00 (C13)	08:05		06:58	06:35		05:21			04:31		
	15:55	32	11:32 (C13)	16:56		17:58	20:03		21:06			21:59		
7	08:48		11:00 (C13)	08:03		06:55	06:33		05:19			04:30		
	15:56	32	11:32 (C13)	16:59		18:00	20:05		21:08			22:00		
8	08:48		11:01 (C13)	08:01		06:53	06:30		05:17			04:29		
	15:58	31	11:32 (C13)	17:01		18:03	20:08		21:10			22:01		
9	08:47		11:02 (C13)	07:58		06:50	06:28		05:15			04:28		
	15:59	30	11:32 (C13)	17:03		18:05	20:10		21:12			22:02		
10	08:46		11:03 (C13)	07:56		06:47	06:25		05:13			04:28		
	16:01	29	11:32 (C13)	17:05		18:07	20:12		21:14			22:03		
11	08:45		11:04 (C13)	07:54		06:45	06:22		05:10			04:27		
	16:03	28	11:32 (C13)	17:08		18:09	20:14		21:16			22:04		
12	08:44		11:05 (C13)	07:52		06:42	06:20		05:08			04:27		
	16:04	27	11:32 (C13)	17:10		18:11	20:16		21:18			22:05		
13	08:43		11:05 (C13)	07:50		06:40	06:17		05:06			04:26		
	16:06	26	11:31 (C13)	17:12		18:13	20:18		21:20			22:06		
14	08:42		11:07 (C13)	07:47		06:37	06:14		05:04			04:26		
	16:08	24	11:31 (C13)	17:14		18:15	20:20		21:22			22:07		
15	08:41		11:08 (C13)	07:45		06:34	06:12		05:02			04:26		
	16:10	22	11:30 (C13)	17:17		18:18	20:22		21:24			22:07		
16	08:40		11:09 (C13)	07:43		06:32	06:09		05:01			04:25		
	16:12	20	11:29 (C13)	17:19		18:20	20:24		21:25			22:08		
17	08:39		11:12 (C13)	07:40		06:29	06:07		04:59			04:25		
	16:14	16	11:28 (C13)	17:21		18:22	20:26		21:27			22:08		
18	08:37		11:13 (C13)	07:38		06:26	06:04		04:57			04:25		
	16:16	13	11:26 (C13)	17:23		18:24	20:28		21:29			22:09		
19	08:36		11:17 (C13)	07:36		06:24	06:02		04:55			04:25		
	16:18	6	11:23 (C13)	17:25		18:26	20:30	7	06:35 (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	16	06:39 (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	19	06:40 (C1)	21:37		22:10		
23	08:30			07:26		06:13	05:52		06:19 (C1)	04:48		04:26		
	16:26			17:34		18:34	20:39	21	06:40 (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		06:18 (C1)	04:45		04:26		
	16:30			17:39		18:38	20:43	23	06:41 (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	23	06:40 (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	23	06:40 (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	23	06:40 (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	22	06:40 (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	21	06:38 (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		503						232			76			
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		38						72			27			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 28 11:14 (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 29 11:15 (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 30 11:15 (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 31 11:16 (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 32 11:17 (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 32 11:18 (C13)
7	04:36 22:05	05:27 21:15	06:35 (C1) 06:39 (C1)	06:29 19:58	07:30 18:38	07:36 16:23 33 11:18 (C13)
8	04:37 22:04	05:29 21:13	06:32 (C1) 06:42 (C1)	06:31 19:55	07:32 18:35	07:38 16:21 33 11:19 (C13)
9	04:38 22:03	05:31 21:11	06:30 (C1) 06:44 (C1)	06:33 19:53	07:34 18:32	07:40 16:19 33 11:19 (C13)
10	04:39 22:02	05:33 21:08	06:29 (C1) 06:46 (C1)	06:35 19:50	07:36 18:30	07:42 16:17 33 11:20 (C13)
11	04:41 22:01	05:35 21:06	06:27 (C1) 06:46 (C1)	06:37 19:47	07:38 18:27	07:44 16:15 34 11:20 (C13)
12	04:42 22:00	05:37 21:04	06:26 (C1) 06:46 (C1)	06:39 19:45	07:40 18:25	07:46 16:13 34 11:21 (C13)
13	04:43 21:59	05:39 21:02	06:26 (C1) 06:47 (C1)	06:41 19:42	07:42 18:22	07:49 16:11 34 11:22 (C13)
14	04:45 21:58	05:41 20:59	06:25 (C1) 06:47 (C1)	06:43 19:39	07:44 18:19	07:51 16:09 34 11:22 (C13)
15	04:46 21:57	05:43 20:57	06:25 (C1) 06:48 (C1)	06:45 19:37	07:46 18:17	07:53 16:08 35 11:23 (C13)
16	04:48 21:55	05:45 20:54	06:25 (C1) 06:48 (C1)	06:47 19:34	07:48 18:14	07:55 16:06 34 11:23 (C13)
17	04:49 21:54	05:47 20:52	06:25 (C1) 06:48 (C1)	06:49 19:31	07:50 18:12	07:57 16:04 35 11:24 (C13)
18	04:51 21:52	05:49 20:50	06:24 (C1) 06:46 (C1)	06:51 19:29	07:52 18:09	07:59 16:02 34 11:24 (C13)
19	04:52 21:51	05:51 20:47	06:24 (C1) 06:46 (C1)	06:53 19:26	07:55 18:07	08:01 16:01 35 11:25 (C13)
20	04:54 21:49	05:53 20:45	06:25 (C1) 06:45 (C1)	06:55 19:23	07:57 18:04	08:03 15:59 35 11:25 (C13)
21	04:56 21:48	05:55 20:42	06:26 (C1) 06:44 (C1)	06:57 19:20	07:59 18:02	08:05 15:58 35 11:26 (C13)
22	04:57 21:46	05:57 20:40	06:28 (C1) 06:43 (C1)	06:59 19:18	08:01 17:59	08:07 15:56 35 11:26 (C13)
23	04:59 21:45	05:59 20:37	06:30 (C1) 06:41 (C1)	07:01 19:15	08:03 17:57	08:09 15:55 6 11:00 (C13) 35 11:27 (C13)
24	05:01 21:43	06:01 20:35	06:32 (C1) 06:39 (C1)	07:03 19:12	08:05 17:55	08:11 15:53 12 11:03 (C13) 35 11:27 (C13)
25	05:03 21:41	06:03 20:32		07:05 19:10	08:13 16:52	10:49 (C13) 35 11:27 (C13)
26	05:04 21:39	06:05 20:30		07:07 19:07	08:15 16:50	10:49 (C13) 35 11:28 (C13)
27	05:06 21:38	06:07 20:27		07:09 19:04	08:17 16:47	10:48 (C13) 35 11:28 (C13)
28	05:08 21:36	06:09 20:24		07:11 19:02	08:19 16:45	10:47 (C13) 34 11:28 (C13)
29	05:10 21:34	06:11 20:22		07:13 18:59	08:21 16:43	10:46 (C13) 34 11:29 (C13)
30	05:12 21:32	06:13 20:19		07:15 18:56	08:22 16:40	10:46 (C13) 34 11:29 (C13)
31	05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47 34 11:30 (C13)
Potential sun hours	529	469	385	324	247	216
Total, worst case		311			151	1039
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		96			7	42

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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 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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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
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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
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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:
09/04/2024 19:14/4.0.531

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
442 466 539 464 488 781 784 938 1,215 1,079 833 556 8,584
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 35	10:16 (C13) 10:51 (C13) 16:45	08:15 10:25 (C13) 17:11	06:49 11:00 (C13) 17:48	05:33 19:53 20:55	04:36 21:53 22:09	04:30 21:28 21:28	05:16 20:14 18:54	06:17 18:54 16:36	07:17 18:54 16:36	07:23 18:54 16:36	08:24 15:45 41
2	08:50 15:49 36	10:16 (C13) 10:52 (C13) 16:47	08:13 10:27 (C13) 17:50	06:46 11:00 (C13) 17:50	05:30 19:55 20:57	04:35 21:54 22:09	04:31 21:26 21:26	05:18 20:11 18:51	06:19 18:51 16:34	07:19 18:51 16:34	07:25 18:51 16:34	08:26 15:44 40
3	08:50 15:51 36	10:16 (C13) 10:52 (C13) 16:50	08:11 10:28 (C13) 17:52	06:43 11:05 (C13) 17:52	05:28 19:57 21:00	04:34 21:55 22:08	04:32 21:24 21:24	05:19 20:09 18:48	06:21 18:48 16:32	07:21 18:48 16:32	07:27 18:48 16:32	08:28 15:43 40
4	08:50 15:52 37	10:16 (C13) 10:53 (C13) 16:52	08:09 10:30 (C13) 17:54	06:41 11:08 (C13) 17:54	05:26 19:59 21:02	04:33 21:57 22:07	04:33 21:22 21:22	05:21 20:06 18:46	06:23 18:46 16:29	07:23 18:46 16:29	07:29 18:46 16:29	08:29 15:42 39
5	08:49 15:53 37	10:17 (C13) 10:54 (C13) 16:54	08:07 10:32 (C13) 17:56	06:38 11:06 (C13) 17:56	05:23 19:56 20:01	04:32 21:58 22:07	04:34 21:20 21:20	05:23 20:03 18:43	06:25 18:43 16:27	07:25 18:43 16:27	07:31 18:43 16:27	08:31 15:42 38
6	08:49 15:55 38	10:17 (C13) 10:55 (C13) 16:56	08:05 10:33 (C13) 17:58	06:35 11:03 (C13) 17:58	05:21 19:58 20:03	04:31 21:59 22:06	04:35 21:17 21:17	05:25 20:01 18:40	06:27 18:40 16:25	07:27 18:40 16:25	07:33 18:40 16:25	08:32 15:41 38
7	08:48 15:56 38	10:17 (C13) 10:55 (C13) 16:59	08:03 10:37 (C13) 18:00	06:33 11:05 (C13) 18:00	05:19 19:58 20:05	04:30 22:00 22:05	04:36 21:15 21:15	05:27 19:58 18:38	06:29 18:38 16:23	07:30 18:38 16:23	07:36 18:38 16:23	08:34 15:40 37
8	08:48 15:58 39	10:17 (C13) 10:56 (C13) 17:01	08:01 10:37 (C13) 18:01	06:30 11:03 (C13) 18:01	05:17 19:58 20:08	04:29 22:01 22:04	04:37 21:13 21:13	05:29 19:55 18:35	06:31 18:35 16:21	07:32 18:35 16:21	07:38 18:35 16:21	08:35 15:40 37
9	08:47 15:59 39	10:17 (C13) 10:56 (C13) 17:03	07:58 10:37 (C13) 18:03	06:28 11:03 (C13) 18:03	05:15 19:58 20:10	04:28 22:02 22:03	04:38 21:11 21:11	05:31 19:53 18:32	06:33 18:32 16:19	07:34 18:32 16:19	07:40 18:32 16:19	08:37 15:39 36
10	08:46 16:01 40	10:17 (C13) 10:57 (C13) 17:05	07:56 10:37 (C13) 18:05	06:25 11:03 (C13) 18:05	05:13 19:58 20:12	04:28 22:03 22:03	04:39 21:08 21:08	05:33 19:50 18:30	06:35 18:30 16:17	07:36 18:30 16:17	07:42 18:30 16:17	08:38 15:39 36
11	08:45 16:03 41	10:17 (C13) 10:58 (C13) 17:08	07:54 10:37 (C13) 18:08	06:22 11:03 (C13) 18:08	05:11 19:58 20:14	04:27 22:04 22:04	04:41 21:06 21:06	05:35 19:47 18:27	06:37 18:27 16:15	07:38 18:27 16:15	07:44 18:27 16:15	08:39 15:38 35
12	08:44 16:04 41	10:18 (C13) 10:59 (C13) 17:10	07:52 10:37 (C13) 18:10	06:20 11:03 (C13) 18:10	05:08 19:58 20:16	04:27 22:05 22:05	04:42 21:04 21:04	05:37 19:45 18:25	06:39 18:25 16:13	07:40 18:25 16:13	07:46 18:25 16:13	08:40 15:38 35
13	08:43 16:06 42	10:18 (C13) 10:59 (C13) 17:12	07:49 10:37 (C13) 18:12	06:17 11:03 (C13) 18:12	05:06 19:58 20:16	04:26 22:06 22:06	04:43 21:59 21:59	05:39 19:42 18:22	06:41 18:22 16:11	07:42 18:22 16:11	07:49 18:22 16:11	08:42 15:38 35
14	08:42 16:08 42	10:18 (C13) 11:00 (C13) 17:14	07:47 10:37 (C13) 18:14	06:14 11:03 (C13) 18:14	05:04 19:58 20:20	04:26 22:07 22:07	04:45 21:58 20:59	05:41 19:39 18:19	06:43 18:19 16:09	07:44 18:19 16:09	07:51 18:19 16:09	08:43 15:38 34
15	08:41 16:10 43	10:18 (C13) 11:01 (C13) 17:17	07:45 10:37 (C13) 18:17	06:12 11:03 (C13) 18:17	05:03 19:58 20:22	04:26 22:07 22:07	04:46 21:57 20:57	05:43 19:37 18:17	06:45 18:17 16:08	07:46 18:17 16:08	07:53 18:17 16:08	08:44 15:38 33
16	08:40 16:12 43	10:18 (C13) 11:01 (C13) 17:19	07:43 10:37 (C13) 18:19	06:10 11:03 (C13) 18:19	05:01 19:58 20:24	04:25 22:08 22:08	04:48 21:55 20:54	05:45 19:34 18:14	06:47 18:14 16:06	07:48 18:14 16:06	07:55 18:14 16:06	08:45 15:38 33
17	08:39 16:14 43	10:19 (C13) 11:02 (C13) 17:21	07:40 10:37 (C13) 18:21	06:09 11:03 (C13) 18:21	05:01 19:58 20:26	04:25 22:09 22:09	04:49 21:54 20:52	05:47 19:31 18:12	06:49 18:12 16:04	07:50 18:12 16:04	07:57 18:12 16:04	08:46 15:38 33
18	08:37 16:16 44	10:19 (C13) 11:03 (C13) 17:23	07:38 10:37 (C13) 18:23	06:07 11:03 (C13) 18:23	05:01 19:58 20:28	04:25 22:09 22:09	04:51 21:52 20:50	05:49 19:29 18:09	06:51 18:09 16:02	07:52 18:09 16:02	07:59 18:09 16:02	08:46 15:38 32
19	08:36 16:18 44	10:19 (C13) 11:03 (C13) 17:26	07:36 10:37 (C13) 18:26	06:05 11:03 (C13) 18:26	05:01 19:58 20:30	04:25 22:09 22:09	04:52 21:51 20:47	05:51 19:26 18:07	06:53 18:07 16:01	07:55 18:07 16:01	08:01 18:07 16:01	08:47 15:38 33
20	08:35 16:20 44	10:19 (C13) 11:03 (C13) 17:28	07:33 10:37 (C13) 18:28	06:03 11:03 (C13) 18:28	05:01 19:58 20:33	04:25 22:10 22:10	04:54 21:49 20:45	05:53 19:23 18:04	06:55 18:04 15:59	07:57 18:04 15:59	08:03 18:04 15:59	08:48 15:39 33
21	08:33 16:22 44	10:19 (C13) 11:03 (C13) 17:30	07:31 10:37 (C13) 18:30	06:01 11:03 (C13) 18:30	05:01 19:58 20:35	04:25 22:10 22:10	04:56 21:48 20:42	05:55 19:20 18:02	06:57 18:02 15:58	07:59 18:02 15:58	08:05 18:02 15:58	08:48 15:39 32
22	08:32 16:24 44	10:19 (C13) 11:03 (C13) 17:32	07:28 10:37 (C13) 18:32	06:01 11:03 (C13) 18:32	05:01 19:58 20:37	04:25 22:10 22:10	04:57 21:46 20:40	05:59 19:18 17:59	06:59 18:03 15:56	08:01 18:03 15:56	08:07 18:03 15:56	08:49 15:39 32
23	08:30 16:26 43	10:20 (C13) 11:03 (C13) 17:34	07:26 10:37 (C13) 18:34	06:01 11:03 (C13) 18:34	05:01 19:58 20:39	04:26 22:10 22:10	04:59 21:45 20:37	05:59 19:15 17:57	07:01 18:03 15:55	08:09 18:03 15:55	08:15 18:03 15:55	08:50 15:40 32
24	08:29 16:28 43	10:21 (C13) 11:03 (C13) 17:37	07:23 10:37 (C13) 18:37	06:01 11:03 (C13) 18:37	05:01 19:58 20:41	04:26 22:10 22:10	05:01 21:43 20:35	06:01 19:12 17:55	07:03 18:03 15:53	08:11 18:03 15:53	08:17 18:03 15:53	08:51 15:41 33
25	08:27 16:30 42	10:21 (C13) 11:03 (C13) 17:39	07:21 10:37 (C13) 18:39	06:01 11:03 (C13) 18:39	05:01 19:58 20:42	04:26 22:10 22:10	05:03 21:41 20:32	06:03 19:10 16:52	07:05 18:03 15:52	08:13 18:03 15:52	08:19 18:03 15:52	08:50 15:41 32
26	08:26 16:32 41	10:22 (C13) 11:03 (C13) 17:41	07:18 10:37 (C13) 18:41	06:01 11:03 (C13) 18:41	05:01 19:58 20:44	04:27 22:10 22:10	05:04 21:39 20:30	06:05 19:07 16:50	07:07 18:03 15:51	08:15 18:03 15:51	08:21 18:03 15:51	08:51 15:42 32
27	08:24 16:34 41	10:22 (C13) 11:03 (C13) 17:43	07:16 10:37 (C13) 18:43	06:01 11:03 (C13) 18:43	05:01 19:58 20:45	04:27 22:10 22:10	05:06 21:38 20:27	06:07 19:04 16:47	07:09 18:03 15:49	08:17 18:03 15:49	08:23 18:03 15:49	08:51 15:43 33
28	08:22 16:36 40	10:23 (C13) 11:03 (C13) 17:45	07:13 10:37 (C13) 18:45	06:01 11:03 (C13) 18:45	05:01 19:58 20:47	04:28 22:10 22:10	05:08 21:36 20:24	06:09 19:02 16:45	07:11 18:03 15:48	08:19 18:03 15:48	08:25 18:03 15:48	08:51 15:44 34
29	08:20 16:39 40	10:23 (C13) 11:03 (C13) 17:47	07:11 10:37 (C13) 18:47	06:01 11:03 (C13) 18:47	05:01 19:58 20:49	04:29 22:10 22:10	05:10 21:34 20:22	06:11 18:59 16:43	07:13 18:03 15:47	08:21 18:03 15:47	08:27 18:03 15:47	08:51 15:45 33
30	08:18 16:41 38	10:24 (C13) 11:03 (C13) 17:49	07:09 10:37 (C13) 18:49	06:01 11:03 (C13) 18:49	05:01 19:58 20:51	04:29 22:10 22:10	05:12 21:32 20:19	06:13 18:56 16:40	07:15 18:03 15:46	08:22 18:03 15:46	08:28 18:03 15:46	08:51 15:46 34
31	08:17 16:43 37	10:25 (C13) 11:03 (C13) 17:51	07:08 10:37 (C13) 18:51	06:01 11:03 (C13) 18:51	05:01 19:58 21:51	04:37 22:10 21:30	05:14 20:17 20:17	06:15 18:56 16:38	07:20 18:03 15:46	08:28 18:03 15:46	08:34 18:03 15:46	08:51 15:47 34
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	1255	186								1032		1079
Sun reduction	0.13	0.20								0.08		0.07
Oper. time red.	0.98	0.98								0.98		0.98
Wind dir. red.	0.61	0.61								0.61		0.61
Total reduction	0.08	0.12								0.05		0.04
Total, real	100	22								51		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) 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April			May			June		
1	08:51		13:50 (C15)	08:15			07:11		16:10 (C13)	06:49		05:32				04:36		05:41 (C4)
	15:48	13	14:03 (C15)	16:45			17:47	38	16:48 (C13)	19:53		20:55				21:52	24	06:05 (C4)
2	08:50		13:51 (C15)	08:13			07:08		16:10 (C13)	06:46		05:30				04:35		05:41 (C4)
	15:49	11	14:02 (C15)	16:47			17:50	37	16:47 (C13)	19:55		20:57				21:54	24	06:05 (C4)
3	08:50		13:53 (C15)	08:11			07:06		16:10 (C13)	06:43		05:28				04:34		05:42 (C4)
	15:51	9	14:02 (C15)	16:50			17:52	38	16:48 (C13)	19:57		20:59				21:55	22	06:04 (C4)
4	08:50		13:54 (C15)	08:09			07:03		16:10 (C13)	06:41		05:26				04:33		05:42 (C4)
	15:52	7	14:01 (C15)	16:52			17:54	37	16:47 (C13)	19:59		21:01				21:56	22	06:04 (C4)
5	08:49		13:58 (C15)	08:07			07:00		16:10 (C13)	06:38		05:23				04:32		05:43 (C4)
	15:53	1	13:59 (C15)	16:54			17:56	36	16:46 (C13)	20:01		21:04				21:58	21	06:04 (C4)
6	08:49			08:05			06:58		16:11 (C13)	06:35		05:21				04:31		05:44 (C4)
	15:55			16:56			17:58	35	16:46 (C13)	20:03		21:06				21:59	20	06:04 (C4)
7	08:48			08:03			06:55		16:11 (C13)	06:33		05:19				04:30		05:44 (C4)
	15:56			16:59			18:00	34	16:45 (C13)	20:05		21:08				22:00	19	06:03 (C4)
8	08:47			08:00			06:53		16:11 (C13)	06:30		05:17				04:29		05:45 (C4)
	15:58			17:01			18:03	32	16:43 (C13)	20:07		21:10	2	05:53 (C4)		22:01	18	06:03 (C4)
9	08:47			07:58			06:50		16:13 (C13)	06:27		05:15		05:46 (C4)		04:28		05:45 (C4)
	15:59			17:03			18:05	30	16:43 (C13)	20:10		21:12	12	05:58 (C4)		22:02	18	06:03 (C4)
10	08:46			07:56			06:47		16:14 (C13)	06:25		05:13		05:44 (C4)		04:28		05:46 (C4)
	16:01			17:05			18:07	27	16:41 (C13)	20:12		21:14	15	05:59 (C4)		22:03	17	06:03 (C4)
11	08:45			07:54			06:45		16:15 (C13)	06:22		05:10		05:43 (C4)		04:27		05:46 (C4)
	16:03			17:08			18:09	24	16:39 (C13)	20:14		21:16	18	06:01 (C4)		22:04	16	06:02 (C4)
12	08:44			07:52			06:42		16:18 (C13)	06:20		05:08		05:41 (C4)		04:27		05:47 (C4)
	16:04			17:10			18:11	19	16:37 (C13)	20:16		21:18	21	06:02 (C4)		22:05	15	06:02 (C4)
13	08:43			07:49			06:39		16:21 (C13)	06:17		05:06		05:40 (C4)		04:26		05:48 (C4)
	16:06			17:12			18:13	12	16:33 (C13)	20:18		21:20	22	06:02 (C4)		22:06	14	06:02 (C4)
14	08:42			07:47			06:37			06:14		05:04		05:40 (C4)		04:26		05:48 (C4)
	16:08			17:14			18:15			20:20		21:22	24	06:04 (C4)		22:07	13	06:01 (C4)
15	08:41			07:45			06:34			06:12		05:02		05:39 (C4)		04:26		05:49 (C4)
	16:10			17:17			18:17			20:22		21:23	25	06:04 (C4)		22:07	12	06:01 (C4)
16	08:40			07:43			06:31			06:09		05:01		05:38 (C4)		04:25		05:50 (C4)
	16:12			17:19			18:20			20:24		21:25	26	06:04 (C4)		22:08	11	06:01 (C4)
17	08:39			07:40			06:29			06:07		04:59		05:39 (C4)		04:25		05:50 (C4)
	16:14			17:21			18:22			20:26		21:27	26	06:05 (C4)		22:08	11	06:01 (C4)
18	08:37			07:38		16:23 (C13)	06:26			06:04		04:57		05:38 (C4)		04:25		05:51 (C4)
	16:16			17:23	14	16:37 (C13)	18:24			20:28		21:29	27	06:05 (C4)		22:09	10	06:01 (C4)
19	08:36			07:35		16:20 (C13)	06:23			06:02		04:55		05:38 (C4)		04:25		05:51 (C4)
	16:18			17:25	20	16:40 (C13)	18:26			20:30		21:31	27	06:05 (C4)		22:09	10	06:01 (C4)
20	08:35			07:33		16:18 (C13)	06:21			05:59		04:53		05:38 (C4)		04:25		05:51 (C4)
	16:20			17:28	24	16:42 (C13)	18:28			20:32		21:33	28	06:06 (C4)		22:10	10	06:01 (C4)
21	08:33			07:31		16:17 (C13)	06:18			05:57		04:52		05:37 (C4)		04:25		05:52 (C4)
	16:22			17:30	27	16:44 (C13)	18:30			20:35		21:35	28	06:05 (C4)		22:10	10	06:02 (C4)
22	08:32			07:28		16:15 (C13)	06:15			05:54		04:50		05:38 (C4)		04:25		05:52 (C4)
	16:24			17:32	30	16:45 (C13)	18:32			20:37		21:36	28	06:06 (C4)		22:10	10	06:02 (C4)
23	08:30			07:26		16:14 (C13)	06:13			05:52		04:48		05:37 (C4)		04:26		05:52 (C4)
	16:26			17:34	32	16:46 (C13)	18:34			20:39		21:38	28	06:05 (C4)		22:10	10	06:02 (C4)
24	08:29			07:23		16:13 (C13)	06:10			05:49		04:47		05:38 (C4)		04:26		05:52 (C4)
	16:28			17:36	33	16:46 (C13)	18:36			20:41		21:40	28	06:06 (C4)		22:10	10	06:02 (C4)
25	08:27			07:21		16:12 (C13)	06:07			05:47		04:45		05:38 (C4)		04:26		05:52 (C4)
	16:30			17:39	35	16:47 (C13)	18:38			20:43		21:42	28	06:06 (C4)		22:10	11	06:03 (C4)
26	08:25			07:18		16:12 (C13)	06:05			05:44		04:44		05:39 (C4)		04:27		05:52 (C4)
	16:32			17:41	36	16:48 (C13)	18:40			20:45		21:43	27	06:06 (C4)		22:10	11	06:03 (C4)
27	08:24			07:16		16:11 (C13)	06:02			05:42		04:42		05:38 (C4)		04:27		05:52 (C4)
	16:34			17:43	37	16:48 (C13)	18:43			20:47		21:45	27	06:05 (C4)		22:10	12	06:04 (C4)
28	08:22			07:13		16:11 (C13)	05:59			05:39		04:41		05:39 (C4)		04:28		05:51 (C4)
	16:36			17:45	37	16:48 (C13)	18:45			20:49		21:46	26	06:05 (C4)		22:10	13	06:04 (C4)
29	08:20						06:57			05:37		04:39		05:39 (C4)		04:28		05:52 (C4)
	16:39						19:47			20:51		21:48	26	06:05 (C4)		22:10	13	06:05 (C4)
30	08:18						06:54			05:35		04:38		05:40 (C4)		04:29		05:52 (C4)
	16:41						19:49			20:53		21:50	25	06:05 (C4)		22:09	14	06:06 (C4)
31	08:17						06:51					04:37		05:40 (C4)				
	16:43						19:51					21:51	25	06:05 (C4)				
Potential sun hours	235			266			366			426		508				529		
Total, worst case		41			325			399				569					441	
Sun reduction		0.13			0.20			0.41				0.57					0.56	
Oper. time red.		0.98			0.98			0.98				0.98					0.98	
Wind dir. red.		0.65			0.67			0.67				0.67					0.67	
Total reduction		0.09			0.13			0.27				0.37					0.37	
Total, real		3			43			108				212					162	

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July			August			September			October			November			December		
1	04:30	05:51 (C4)	05:16	05:52 (C4)	06:17		07:17	16:58 (C13)	07:22	08:24								
	22:09	15	06:06 (C4)	21:28	20	06:12 (C4)	20:14	18:54	17	17:15 (C13)	16:36	15:45						
2	04:31	05:51 (C4)	05:17	05:53 (C4)	06:19		07:19	16:55 (C13)	07:25	08:26								
	22:08	16	06:07 (C4)	21:26	18	06:11 (C4)	20:11	18:51	22	17:17 (C13)	16:34	15:44						
3	04:32	05:51 (C4)	05:19	05:55 (C4)	06:21		07:21	16:53 (C13)	07:27	08:27								
	22:08	17	06:08 (C4)	21:24	14	06:09 (C4)	20:09	18:48	25	17:18 (C13)	16:31	15:43						
4	04:33	05:51 (C4)	05:21	05:58 (C4)	06:23		07:23	16:51 (C13)	07:29	08:29								
	22:07	17	06:08 (C4)	21:22	9	06:07 (C4)	20:06	18:46	28	17:19 (C13)	16:29	15:42						
5	04:34	05:50 (C4)	05:23				06:25	07:25		16:49 (C13)	07:31	08:31						
	22:07	19	06:09 (C4)	21:19			20:03	18:43	31	17:20 (C13)	16:27	15:42						
6	04:35	05:50 (C4)	05:25				06:27	07:27		16:48 (C13)	07:33	08:32						
	22:06	20	06:10 (C4)	21:17			20:01	18:40	33	17:21 (C13)	16:25	15:41						
7	04:36	05:50 (C4)	05:27				06:29	07:29		16:46 (C13)	07:36	08:34						
	22:05	20	06:10 (C4)	21:15			19:58	18:38	35	17:21 (C13)	16:23	15:40						
8	04:37	05:50 (C4)	05:29				06:31	07:31		16:45 (C13)	07:38	08:35						
	22:04	21	06:11 (C4)	21:13			19:55	18:35	36	17:21 (C13)	16:21	15:40	7	13:42 (C15)				
9	04:38	05:49 (C4)	05:31				06:33	07:34		16:44 (C13)	07:40	08:36						
	22:03	22	06:11 (C4)	21:11			19:53	18:32	37	17:21 (C13)	16:19	15:39	9	13:50 (C15)				
10	04:39	05:49 (C4)	05:33				06:35	07:36		16:45 (C13)	07:42	08:38						
	22:02	23	06:12 (C4)	21:08			19:50	18:30	37	17:22 (C13)	16:17	15:39	11	13:52 (C15)				
11	04:41	05:48 (C4)	05:35				06:37	07:38		16:44 (C13)	07:44	08:39						
	22:01	24	06:12 (C4)	21:06			19:47	18:27	38	17:22 (C13)	16:15	15:38	13	13:53 (C15)				
12	04:42	05:49 (C4)	05:37				06:39	07:40		16:44 (C13)	07:46	08:40						
	22:00	24	06:13 (C4)	21:04			19:45	18:25	37	17:21 (C13)	16:13	15:38	13	13:53 (C15)				
13	04:43	05:49 (C4)	05:39				06:41	07:42		16:43 (C13)	07:48	08:41						
	21:59	25	06:14 (C4)	21:01			19:42	18:22	38	17:21 (C13)	16:11	15:38	14	13:55 (C15)				
14	04:45	05:48 (C4)	05:41				06:43	07:44		16:43 (C13)	07:51	08:43						
	21:58	26	06:14 (C4)	20:59			19:39	18:19	37	17:20 (C13)	16:09	15:38	15	13:56 (C15)				
15	04:46	05:48 (C4)	05:43				06:45	07:46		16:44 (C13)	07:53	08:44						
	21:56	26	06:14 (C4)	20:57			19:37	18:17	36	17:20 (C13)	16:07	15:38	15	13:56 (C15)				
16	04:48	05:48 (C4)	05:45				06:47	07:48		16:44 (C13)	07:55	08:45						
	21:55	27	06:15 (C4)	20:54			19:34	18:14	36	17:20 (C13)	16:06	15:38	16	13:57 (C15)				
17	04:49	05:48 (C4)	05:47				06:49	07:50		16:44 (C13)	07:57	08:45						
	21:54	27	06:15 (C4)	20:52			19:31	18:12	35	17:19 (C13)	16:04	15:38	17	13:58 (C15)				
18	04:51	05:48 (C4)	05:49				06:51	07:52		16:44 (C13)	07:59	08:46						
	21:52	28	06:16 (C4)	20:49			19:28	18:09	33	17:17 (C13)	16:02	15:38	17	13:59 (C15)				
19	04:52	05:48 (C4)	05:51				06:53	07:54		16:45 (C13)	08:01	08:47						
	21:51	27	06:15 (C4)	20:47			19:26	18:07	31	17:16 (C13)	16:01	15:38	18	13:59 (C15)				
20	04:54	05:48 (C4)	05:53				06:55	07:57		16:46 (C13)	08:03	08:48						
	21:49	28	06:16 (C4)	20:45			19:23	18:04	29	17:15 (C13)	15:59	15:39	17	13:59 (C15)				
21	04:56	05:48 (C4)	05:55				06:57	07:59		16:47 (C13)	08:05	08:48						
	21:48	28	06:16 (C4)	20:42			19:20	18:02	27	17:14 (C13)	15:58	15:39	17	14:00 (C15)				
22	04:57	05:48 (C4)	05:57				06:59	08:01		16:49 (C13)	08:07	08:49						
	21:46	28	06:16 (C4)	20:40			19:18	17:59	23	17:12 (C13)	15:56	15:39	17	14:00 (C15)				
23	04:59	05:48 (C4)	05:59				07:01	08:03		16:51 (C13)	08:09	08:49						
	21:44	28	06:16 (C4)	20:37			19:15	17:57	19	17:10 (C13)	15:55	15:40	17	14:00 (C15)				
24	05:01	05:48 (C4)	06:01				07:03	08:05		16:54 (C13)	08:11	08:50						
	21:43	28	06:16 (C4)	20:35			19:12	17:55	12	17:06 (C13)	15:53	15:40	17	14:01 (C15)				
25	05:03	05:48 (C4)	06:03				07:05	07:07			08:13	08:50						
	21:41	27	06:15 (C4)	20:32			19:10	16:52			15:52	15:41	17	14:02 (C15)				
26	05:04	05:49 (C4)	06:05				07:07	07:09			08:15	08:50						
	21:39	26	06:15 (C4)	20:29			19:07	16:50			15:51	15:42	17	14:02 (C15)				
27	05:06	05:49 (C4)	06:07				07:09	07:12			08:17	08:51						
	21:37	26	06:15 (C4)	20:27			19:04	16:47			15:49	15:43	16	14:02 (C15)				
28	05:08	05:49 (C4)	06:09				07:11	07:14			08:19	08:51						
	21:36	25	06:14 (C4)	20:24			19:02	16:45			15:48	15:44	16	14:02 (C15)				
29	05:10	05:50 (C4)	06:11				07:13	07:16			08:21	08:51						
	21:34	24	06:14 (C4)	20:22			18:59	16:43			15:47	15:45	16	14:03 (C15)				
30	05:12	05:51 (C4)	06:13				07:15	07:18			08:22	08:51						
	21:32	23	06:14 (C4)	20:19			18:56	16:40			15:46	15:46	15	14:03 (C15)				
31	05:14	05:52 (C4)	06:15					07:20				08:51						
	21:30	21	06:13 (C4)	20:17				16:38				15:47	14	14:02 (C15)				
Potential sun hours	529		469				385			324		247		216				
Total, worst case	736		61				8			732				361				
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		0.67				0.67			0.67				0.65				
Total reduction	0.32		0.33				0.28			0.17				0.04				
Total, real	238		20				2			124				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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 08:50	08:14 16:45 08:12	07:10 17:47 07:08	16:21 (C3) 06:48 19:53	05:32 20:55 21:52	04:35 21:52 22:09	04:29 22:09 21:28	05:15 21:28 20:14	06:17 20:14 18:53	07:17 18:53 07:19	07:22 16:35 15:44	08:24 15:44 08:26
2	15:49 08:50	16:47 08:10	17:49 07:05	16:52 (C3) 19:55 16:21 (C3)	20:57 05:27 04:33	21:54 22:08 04:31	22:08 21:25 05:19	20:11 18:50 06:21	18:50 07:21 18:48	18:50 07:21 17:07 (C3)	16:33 15:43 16:31	15:43 08:27 15:43
3	15:50 08:49	16:49 08:08	17:51 07:03	16:51 (C3) 19:57 16:22 (C3)	20:59 05:25 04:32	21:55 22:08 05:21	22:08 21:23 06:23	20:08 18:48 06:23	18:48 07:23 17:19 (C3)	18:48 07:23 17:04 (C3)	16:31 15:42 16:29	15:42 08:29 15:42
4	15:51 08:49	16:51 08:06	17:54 07:00	16:51 (C3) 19:59 16:22 (C3)	20:59 05:23 04:31	21:56 22:07 04:33	21:21 20:06 05:23	18:45 07:25 06:25	18:45 07:25 17:04 (C3)	18:45 07:25 17:21 (C3)	16:29 15:42 16:31	15:42 08:30 15:41
5	15:53 08:48	16:54 08:04	17:56 06:57	16:50 (C3) 20:01 16:22 (C3)	21:03 21:58 05:21	21:58 22:06 04:34	21:19 20:03 05:25	18:43 07:27 06:27	18:43 07:27 17:01 (C3)	18:43 07:27 17:23 (C3)	16:27 15:41 16:25	15:41 08:32 15:40
6	15:54 08:48	16:56 08:02	17:58 06:55	16:48 (C3) 20:03 16:24 (C3)	21:05 21:59 05:18	22:06 22:06 04:35	21:17 20:00 05:27	18:40 07:29 06:29	18:40 07:29 17:23 (C3)	18:40 07:29 16:59 (C3)	16:25 15:40 16:35	15:40 08:33 15:40
7	15:56 08:47	16:58 08:00	18:00 06:52	16:47 (C3) 20:05 16:26 (C3)	21:07 22:00 05:16	22:00 22:05 04:36	21:15 19:58 05:29	18:37 07:31 06:31	18:37 07:31 16:58 (C3)	18:37 07:31 17:24 (C3)	16:23 15:40 16:37	15:40 08:35 15:40
8	15:57 08:46	17:00 07:58	18:02 06:50	16:45 (C3) 20:07 16:27 (C3)	21:09 22:01 05:14	22:01 22:04 04:38	21:13 19:55 05:31	18:35 07:33 06:33	18:35 07:33 16:56 (C3)	18:35 07:33 17:25 (C3)	16:20 15:39 16:40	15:39 08:36 15:39
9	15:59 08:46	17:03 07:56	18:04 06:47	16:42 (C3) 20:09 16:33 (C3)	21:11 22:02 05:12	22:02 22:03 04:39	21:10 19:52 05:33	18:32 07:35 06:35	18:32 07:35 16:55 (C3)	18:32 07:35 17:26 (C3)	16:18 15:39 16:42	15:39 08:38 15:38
10	16:01 08:45	17:05 07:54	18:06 06:44	16:38 (C3) 20:11 06:22	21:13 22:03 05:10	22:03 22:02 04:40	21:08 19:50 05:35	18:29 07:37 06:37	18:29 07:37 16:54 (C3)	18:29 07:37 17:27 (C3)	16:16 15:38 16:44	15:38 08:39 15:38
11	16:02 08:44	17:07 07:51	18:09 06:42	20:13 06:19 20:15	21:15 22:04 21:17	22:04 22:01 22:05	21:06 19:47 22:00	18:27 07:39 19:44	18:27 07:39 17:26 (C3)	18:27 07:39 16:54 (C3)	16:14 15:38 16:13	15:38 08:40 15:38
12	16:04 08:43	17:09 07:49	18:11 06:39	20:15 06:17 20:18	21:17 22:05 21:19	22:05 22:06 22:06	21:03 19:44 21:59	18:24 07:39 19:42	18:24 07:39 17:26 (C3)	18:24 07:39 16:54 (C3)	16:13 15:38 16:11	15:38 08:41 15:37
13	16:06 08:42	17:12 07:47	18:13 06:36	20:18 06:14 20:20	21:19 22:06 21:21	22:06 22:06 22:06	21:59 21:59 21:58	19:42 18:22 20:59	19:42 18:22 17:26 (C3)	19:42 18:22 16:53 (C3)	16:11 15:37 16:09	15:37 08:42 15:37
14	16:08 08:41	17:14 07:45	18:15 06:34	20:20 06:11 20:22	21:21 22:06 21:23	22:06 22:07 22:07	21:58 21:56 21:56	19:39 18:16 20:56	19:39 18:16 17:25 (C3)	19:39 18:16 16:53 (C3)	16:09 15:37 16:07	15:37 08:43 15:37
15	16:09 08:40	17:16 07:42	18:17 06:31	20:22 06:09 20:24	21:23 22:07 21:25	22:07 22:08 22:08	21:56 21:55 21:55	19:36 18:14 20:54	19:36 18:14 17:24 (C3)	19:36 18:14 16:53 (C3)	16:07 15:37 16:05	15:37 08:44 15:37
16	16:11 08:38	17:18 07:40	18:19 06:28	20:24 06:06 20:26	21:25 22:08 21:27	22:08 22:08 22:08	21:55 21:54 21:54	19:34 18:11 20:52	19:34 18:11 17:24 (C3)	19:34 18:11 16:54 (C3)	16:05 15:37 16:04	15:37 08:45 15:37
17	16:13 08:37	17:21 07:38	18:21 06:26	20:26 06:04 20:28	21:27 22:08 21:29	22:08 22:09 22:09	21:54 21:52 21:52	19:31 18:09 20:49	19:31 18:09 17:24 (C3)	19:31 18:09 16:54 (C3)	16:04 15:37 16:02	15:37 08:46 15:37
18	16:15 08:36	17:23 07:35	18:23 06:23	20:28 06:01 20:30	21:29 22:09 21:31	22:09 22:09 22:09	21:52 21:51 21:51	19:28 18:06 20:47	19:28 18:06 17:25 (C3)	19:28 18:06 16:55 (C3)	16:02 15:38 16:00	15:38 08:47 15:38
19	16:17 08:34	17:25 07:33	18:25 06:20	20:30 05:59 20:32	21:31 22:09 21:33	22:09 22:09 22:09	21:51 21:49 21:49	19:25 18:04 20:44	19:25 18:04 17:26 (C3)	19:25 18:04 16:56 (C3)	16:00 15:38 15:59	15:38 08:48 15:38
20	16:19 08:33	17:27 07:30	18:28 06:18	20:32 05:56 20:34	21:33 22:09 21:34	22:09 22:09 22:10	21:49 21:48 21:48	19:23 18:04 20:42	19:23 18:04 17:27 (C3)	19:23 18:04 16:57 (C3)	15:59 15:38 15:57	15:38 08:48 15:38
21	16:21 08:32	17:29 07:28	18:30 06:15	20:34 05:54 20:36	21:34 22:10 21:36	22:10 22:10 22:10	21:48 21:47 21:46	19:20 18:01 20:39	19:20 18:01 17:59	19:20 18:01 17:18 (C3)	15:57 15:39 15:56	15:38 08:49 15:39
22	16:23 08:30	17:32 07:25	18:32 06:12	20:36 05:51 20:38	21:36 22:10 21:38	22:10 22:10 22:10	21:46 21:45 21:44	19:17 18:03 20:37	19:17 18:03 17:57	19:17 18:03 17:16 (C3)	15:56 15:39 15:54	15:39 08:49 15:39
23	16:25 08:28	17:34 07:23	18:34 06:10	20:38 05:49 20:41	21:38 22:10 21:40	22:10 22:10 22:10	21:44 21:43 21:43	19:15 18:05 20:34	19:15 18:05 17:54	19:15 18:05 17:14 (C3)	15:54 15:39 15:53	15:39 08:50 15:40
24	16:27 08:27	17:36 07:20	18:36 06:07	20:41 05:46 20:43	21:40 22:10 21:41	22:10 22:10 22:10	21:43 21:42 21:41	19:12 18:03 20:32	19:12 18:03 17:52	19:12 18:03 17:25 (C3)	15:53 15:40 15:51	15:40 08:51 15:41
25	16:29 08:25	17:38 07:18	18:38 06:04	20:43 05:44 20:45	21:41 22:10 21:43	22:10 22:10 22:10	21:41 21:40 21:39	19:09 18:00 20:29	19:09 18:00 17:52	19:09 18:00 17:26 (C3)	15:51 15:41 15:50	15:41 08:50 15:41
26	16:32 08:23	17:40 07:15	18:40 06:02	20:45 05:41 20:47	21:43 22:10 21:45	22:10 22:10 22:10	21:39 21:38 21:37	19:07 18:00 20:27	19:07 18:00 17:54	19:07 18:00 17:27 (C3)	15:50 15:41 15:51	15:41 08:50 15:42
27	16:34 08:22	17:43 07:13	18:42 05:59	20:47 05:39 20:49	21:45 22:10 21:46	22:10 22:10 22:10	21:37 21:36 21:35	19:04 18:00 20:24	19:04 18:00 17:53	19:04 18:00 17:28 (C3)	15:49 15:42 15:51	15:42 08:51 15:43
28	16:36 08:20	17:45 07:06	18:44 06:56	20:49 05:37 20:51	21:46 22:10 21:48	22:10 22:10 22:10	21:35 21:34 21:33	19:01 18:00 20:21	19:01 18:00 17:52	19:01 18:00 17:29 (C3)	15:47 15:44 15:47	15:43 08:51 15:44
29	16:38 08:18	17:46 07:04	18:46 06:54	20:51 05:34 20:53	21:48 22:10 21:49	22:10 22:10 22:10	21:33 21:32 21:31	18:59 18:00 20:19	18:59 18:00 17:56	18:59 18:00 17:30 (C3)	15:44 15:45 15:45	15:44 08:51 15:45
30	16:40 08:16	17:47 07:03	18:47 06:51	20:53 05:31 20:55	21:50 22:10 21:51	22:10 22:10 22:10	21:30 21:29 21:28	18:56 18:00 20:16	18:56 18:00 17:31 (C3)	18:56 18:00 17:32 (C3)	15:45 15:46 15:46	15:45 08:51 15:46
31	16:42 08:16	17:48 07:04	18:48 06:52	20:55 05:32 20:57	21:51 22:10 21:52	22:10 22:10 22:10	21:29 21:28 21:27	18:56 18:00 20:17	18:56 18:00 17:32 (C3)	18:56 18:00 17:33 (C3)	15:46 15:47 15:47	15:46 08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		294	238							542		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.98	0.98							0.98		
Wind dir. red.		0.67	0.67							0.67		
Total reduction		0.13	0.27							0.17		
Total, real		39	64							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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April			May			June		
1	08:51		14:05 (C15)	08:15			07:11		16:26 (C13)	06:49		07:37 (C8)	05:32			04:36		05:29 (C4)
	15:48	19	14:24 (C15)	16:45			17:47	33	16:59 (C13)	19:53	14	07:51 (C8)	20:55			21:52	32	06:01 (C4)
2	08:50		14:05 (C15)	08:13			07:08		16:25 (C13)	06:46		07:39 (C8)	05:30			04:35		05:29 (C4)
	15:49	19	14:24 (C15)	16:47			17:50	33	16:58 (C13)	19:55	9	07:48 (C8)	20:57			21:54	32	06:01 (C4)
3	08:50		14:07 (C15)	08:11			07:06		16:26 (C13)	06:43			05:28			04:34		05:29 (C4)
	15:51	18	14:25 (C15)	16:50			17:52	33	16:59 (C13)	19:57			20:59			21:55	32	06:01 (C4)
4	08:50		14:07 (C15)	08:09			07:03		16:25 (C13)	06:41			05:26			04:33		05:29 (C4)
	15:52	17	14:24 (C15)	16:52			17:54	33	16:58 (C13)	19:59			21:01			21:56	32	06:01 (C4)
5	08:49		14:09 (C15)	08:07			07:00		16:25 (C13)	06:38			05:23			04:32		05:30 (C4)
	15:53	16	14:25 (C15)	16:54			17:56	33	16:58 (C13)	20:01			21:04			21:58	32	06:02 (C4)
6	08:49		14:10 (C15)	08:05			06:58		16:26 (C13)	06:35			05:21			04:31		05:30 (C4)
	15:55	15	14:25 (C15)	16:56			17:58	32	16:58 (C13)	20:03			21:06			21:59	31	06:01 (C4)
7	08:48		14:11 (C15)	08:03			06:55		16:26 (C13)	06:33			05:19			04:30		05:30 (C4)
	15:56	13	14:24 (C15)	16:59			18:00	31	16:57 (C13)	20:05			21:08			22:00	31	06:01 (C4)
8	08:47		14:12 (C15)	08:00			06:53		16:26 (C13)	06:30			05:17			04:29		05:31 (C4)
	15:58	12	14:24 (C15)	17:01			18:03	29	16:55 (C13)	20:07			21:10			22:01	31	06:02 (C4)
9	08:47		14:13 (C15)	07:58			06:50		16:27 (C13)	06:27			05:15			04:28		05:31 (C4)
	15:59	10	14:23 (C15)	17:03			18:05	28	16:55 (C13)	20:10			21:12			22:02	30	06:01 (C4)
10	08:46		14:16 (C15)	07:56			06:47		16:28 (C13)	06:25			05:13			04:28		05:31 (C4)
	16:01	6	14:22 (C15)	17:05			18:07	25	16:53 (C13)	20:12			21:14			22:03	31	06:02 (C4)
11	08:45			07:54			06:45		16:29 (C13)	06:22			05:10			04:27		05:31 (C4)
	16:03			17:08			18:09	22	16:51 (C13)	20:14			21:16			22:04	31	06:02 (C4)
12	08:44			07:52			06:42		16:31 (C13)	06:20			05:08			04:27		05:32 (C4)
	16:04			17:10			18:11	19	16:50 (C13)	20:16			21:18			22:05	30	06:02 (C4)
13	08:43			07:49			06:39		16:34 (C13)	06:17			05:06			04:26		05:32 (C4)
	16:06			17:12			18:13	12	16:46 (C13)	20:18			21:20			22:06	31	06:03 (C4)
14	08:42			07:47			06:37			06:14			05:04			04:26		05:32 (C4)
	16:08			17:14			18:15			20:20			21:22			22:07	30	06:02 (C4)
15	08:41			07:45			06:34			06:12		06:38 (C6)	05:02		05:39 (C4)	04:26		05:32 (C4)
	16:10			17:16			18:17			20:22	6	06:44 (C6)	21:23	10	05:49 (C4)	22:07	30	06:02 (C4)
16	08:40			07:42			06:31			06:09		06:35 (C6)	05:01		05:36 (C4)	04:25		05:33 (C4)
	16:12			17:19			18:20			20:24	11	06:46 (C6)	21:25	15	05:51 (C4)	22:08	29	06:02 (C4)
17	08:39			07:40			06:29			06:07		06:33 (C6)	04:59		05:35 (C4)	04:25		05:33 (C4)
	16:14			17:21			18:22			20:26	15	06:48 (C6)	21:27	18	05:53 (C4)	22:08	30	06:03 (C4)
18	08:37			07:38			06:26			06:04		06:30 (C6)	04:57		05:34 (C4)	04:25		05:33 (C4)
	16:16			17:23			18:24			20:28	18	06:48 (C6)	21:29	20	05:54 (C4)	22:09	30	06:03 (C4)
19	08:36			07:35			06:23			06:02		06:29 (C6)	04:55		05:32 (C4)	04:25		05:33 (C4)
	16:18			17:25			18:26			20:30	20	06:49 (C6)	21:31	23	05:55 (C4)	22:09	30	06:03 (C4)
20	08:35			07:33			06:21		06:46 (C8)	05:59		06:27 (C6)	04:53		05:32 (C4)	04:25		05:33 (C4)
	16:20			17:28			18:28	4	06:50 (C8)	20:32	22	06:49 (C6)	21:33	24	05:56 (C4)	22:10	30	06:03 (C4)
21	08:33			07:31		16:37 (C13)	06:18		06:43 (C8)	05:57		06:27 (C6)	04:52		05:31 (C4)	04:25		05:34 (C4)
	16:22			17:30	13	16:50 (C13)	18:30	10	06:53 (C8)	20:35	22	06:49 (C6)	21:35	25	05:56 (C4)	22:10	30	06:04 (C4)
22	08:32			07:28		16:34 (C13)	06:15		06:41 (C8)	05:54		06:27 (C6)	04:50		05:31 (C4)	04:25		05:34 (C4)
	16:24			17:32	18	16:52 (C13)	18:32	14	06:55 (C8)	20:37	22	06:49 (C6)	21:36	26	05:57 (C4)	22:10	30	06:04 (C4)
23	08:30			07:26		16:32 (C13)	06:13		06:38 (C8)	05:52		06:26 (C6)	04:48		05:30 (C4)	04:26		05:34 (C4)
	16:26			17:34	22	16:54 (C13)	18:34	18	06:56 (C8)	20:39	23	06:49 (C6)	21:38	27	05:57 (C4)	22:10	30	06:04 (C4)
24	08:29			07:23		16:30 (C13)	06:10		06:36 (C8)	05:49		06:27 (C6)	04:47		05:30 (C4)	04:26		05:34 (C4)
	16:28			17:36	25	16:55 (C13)	18:36	20	06:56 (C8)	20:41	21	06:48 (C6)	21:40	28	05:58 (C4)	22:10	30	06:04 (C4)
25	08:27			07:21		16:29 (C13)	06:07		06:35 (C8)	05:47		06:27 (C6)	04:45		05:30 (C4)	04:26		05:35 (C4)
	16:30			17:39	27	16:56 (C13)	18:38	21	06:56 (C8)	20:43	21	06:48 (C6)	21:42	29	05:59 (C4)	22:10	30	06:05 (C4)
26	08:25			07:18		16:28 (C13)	06:05		06:35 (C8)	05:44		06:27 (C6)	04:44		05:30 (C4)	04:27		05:35 (C4)
	16:32			17:41	29	16:57 (C13)	18:40	22	06:57 (C8)	20:45	20	06:47 (C6)	21:43	29	05:59 (C4)	22:10	30	06:05 (C4)
27	08:24			07:16		16:27 (C13)	06:02		06:34 (C8)	05:42		06:28 (C6)	04:42		05:29 (C4)	04:27		05:35 (C4)
	16:34			17:43	31	16:58 (C13)	18:43	22	06:56 (C8)	20:47	18	06:46 (C6)	21:45	30	05:59 (C4)	22:10	30	06:05 (C4)
28	08:22			07:13		16:27 (C13)	05:59		06:34 (C8)	05:39		06:29 (C6)	04:41		05:29 (C4)	04:28		05:35 (C4)
	16:36			17:45	32	16:59 (C13)	18:45	21	06:55 (C8)	20:49	16	06:45 (C6)	21:46	31	06:00 (C4)	22:10	30	06:05 (C4)
29	08:20						06:57		07:35 (C8)	05:37		06:30 (C6)	04:39		05:29 (C4)	04:28		05:35 (C4)
	16:39						19:47	20	07:55 (C8)	20:51	14	06:44 (C6)	21:48	31	06:00 (C4)	22:10	31	06:06 (C4)
30	08:18						06:54		07:35 (C8)	05:35		06:31 (C6)	04:38		05:29 (C4)	04:29		05:36 (C4)
	16:41						19:49	19	07:54 (C8)	20:53	10	06:41 (C6)	21:50	31	06:00 (C4)	22:09	30	06:06 (C4)
31	08:17						06:51		07:35 (C8)				04:37		05:29 (C4)			
	16:43						19:51	17	07:52 (C8)				21:51	31	06:00 (C4)			
Potential sun hours	235			266			366			426			508			529		
Total, worst case		145			197			571						428			916	
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			0.67			0.66				0.65		0.67			0.67	
Total reduction		0.09			0.13			0.27				0.32		0.37			0.37	
Total, real		12			26			152				96		160			336	

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July	August	September	October	November	December
1	04:30 22:09 31	05:35 (C4) 06:06 (C4) 21:28	06:17 20:14	07:17 18:54 17	17:11 (C13) 17:28 (C13) 16:36	08:24 15:45
2	04:31 22:08 30	05:36 (C4) 06:06 (C4) 21:26	06:19 20:11	07:19 18:51 21	17:09 (C13) 17:30 (C13) 16:34	08:26 15:44 6
3	04:32 22:08 31	05:36 (C4) 06:07 (C4) 21:24	06:21 20:09	07:21 18:48 25	17:06 (C13) 17:31 (C13) 16:31	08:27 15:43 9
4	04:33 22:07 31	05:36 (C4) 06:07 (C4) 21:22	06:23 20:06	07:23 18:46 27	17:05 (C13) 17:32 (C13) 16:29	08:29 15:42 12
5	04:34 22:07 31	05:36 (C4) 06:07 (C4) 21:19	06:25 20:03	07:25 18:43 29	17:03 (C13) 17:32 (C13) 16:27	08:31 15:42 13
6	04:35 22:06 31	05:37 (C4) 06:08 (C4) 21:17	06:27 20:01	07:27 18:40 31	17:02 (C13) 17:33 (C13) 16:25	08:32 15:41 15
7	04:36 22:05 31	05:37 (C4) 06:08 (C4) 21:15	06:29 19:58	07:29 18:38 32	17:01 (C13) 17:33 (C13) 16:23	08:34 15:40 16
8	04:37 22:04 31	05:37 (C4) 06:08 (C4) 21:13	06:31 19:55	07:31 18:35 33	17:00 (C13) 17:33 (C13) 16:21	08:35 15:40 17
9	04:38 22:03 31	05:37 (C4) 06:08 (C4) 21:11	06:33 19:53	07:34 18:32 34	16:59 (C13) 17:33 (C13) 16:19	08:36 15:39 18
10	04:39 22:02 31	05:38 (C4) 06:08 (C4) 21:08	06:35 19:50	07:36 18:30 33	17:00 (C13) 17:33 (C13) 16:17	08:38 15:39 19
11	04:41 22:01 31	05:37 (C4) 06:08 (C4) 21:06	06:37 19:47	07:38 18:27 34	16:59 (C13) 17:33 (C13) 16:15	08:39 15:38 19
12	04:42 22:00 31	05:38 (C4) 06:09 (C4) 21:04	06:39 19:45	07:41 (C8) 07:28 (C8) 18:25	16:59 (C13) 17:32 (C13) 16:13	08:40 15:38 20
13	04:43 21:59 31	05:38 (C4) 06:09 (C4) 21:01	06:41 19:42	07:44 (C8) 07:26 (C8) 18:22	16:59 (C13) 17:31 (C13) 16:11	08:41 15:38 20
14	04:45 21:58 31	05:38 (C4) 06:09 (C4) 20:59	06:43 19:39	07:45 (C8) 07:24 (C8) 18:19	16:59 (C13) 17:31 (C13) 16:09	08:43 15:38 21
15	04:46 21:56 30	05:38 (C4) 06:08 (C4) 20:57	06:45 19:37	07:46 (C8) 07:24 (C8) 18:17	17:00 (C13) 17:30 (C13) 16:07	08:44 15:38 20
16	04:48 21:55 30	05:39 (C4) 06:09 (C4) 20:54	06:47 19:34	07:48 (C8) 07:25 (C8) 18:14	17:01 (C13) 17:29 (C13) 16:06	08:45 15:38 21
17	04:49 21:54 30	05:38 (C4) 06:08 (C4) 20:52	06:49 19:31	07:50 (C8) 07:24 (C8) 18:12	17:01 (C13) 17:28 (C13) 16:04	08:45 15:38 21
18	04:51 21:52 30	05:39 (C4) 06:09 (C4) 20:49	06:51 19:28	07:52 (C8) 07:23 (C8) 18:09	17:02 (C13) 17:26 (C13) 16:02	08:46 15:38 21
19	04:52 21:51 29	05:39 (C4) 06:08 (C4) 20:47	06:53 19:26	07:54 (C8) 07:24 (C8) 18:07	17:03 (C13) 17:24 (C13) 16:01	08:47 15:38 21
20	04:54 21:49 28	05:40 (C4) 06:08 (C4) 20:45	06:55 19:23	07:57 (C8) 07:22 (C8) 18:04	17:06 (C13) 17:22 (C13) 15:59	08:48 15:38 22
21	04:56 21:48 27	05:40 (C4) 06:07 (C4) 20:42	06:57 19:20	07:59 (C8) 07:25 (C8) 18:02	17:09 (C13) 17:19 (C13) 15:58	08:48 15:39 21
22	04:57 21:46 26	05:41 (C4) 06:07 (C4) 20:40	06:59 19:18	08:01 (C8) 07:27 (C8) 17:59	17:19 (C13) 17:19 (C13) 15:56	08:49 15:39 21
23	04:59 21:44 25	05:41 (C4) 06:06 (C4) 20:37	07:01 19:15	08:03 (C8) 07:29 (C8) 17:57	17:19 (C13) 17:19 (C13) 15:55	08:49 15:40 22
24	05:01 21:43 23	05:43 (C4) 06:06 (C4) 20:35	07:03 19:12	08:05 (C8) 17:55	17:19 (C13) 17:19 (C13) 15:53	08:50 15:40 22
25	05:03 21:41 21	05:43 (C4) 06:04 (C4) 20:32	07:05 19:10	08:07 (C8) 17:52	17:19 (C13) 17:19 (C13) 15:52	08:50 15:41 21
26	05:04 21:39 20	05:44 (C4) 06:04 (C4) 20:29	07:07 19:07	08:09 (C8) 17:50	17:19 (C13) 17:19 (C13) 15:51	08:50 15:42 21
27	05:06 21:37 17	05:46 (C4) 06:03 (C4) 20:27	07:09 19:04	08:11 (C8) 17:47	17:19 (C13) 17:19 (C13) 15:49	08:51 15:43 20
28	05:08 21:36 13	05:47 (C4) 06:00 (C4) 20:24	07:11 19:02	08:13 (C8) 17:45	17:19 (C13) 17:19 (C13) 15:48	08:51 15:44 21
29	05:10 21:34 8	05:50 (C4) 05:58 (C4) 20:22	07:13 18:59	08:15 (C8) 17:43	17:19 (C13) 17:19 (C13) 15:47	08:51 15:44 20
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 (C8) 17:41	17:19 (C13) 17:19 (C13) 15:46	08:51 15:44 20
31	05:14 21:30	06:15 20:16	07:17 18:57	08:19 (C8) 17:39	17:19 (C13) 17:19 (C13) 15:45	08:51 15:44 19
Potential sun hours	529	469	385	324	247	216
Total, worst case	790	280	247	569		559
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	0.67		0.66
Total reduction	0.32	0.32	0.27	0.17		0.05
Total, real	256	89	67	97		25

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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	07:47 16:13	08:41 15:38
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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
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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:

09/04/2024 19:14/4.0.531

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
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Operational time

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

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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:

09/04/2024 19:14/4.0.531

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) []

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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	05:18 (C14) 05:41 (C14)	04:42 22:00	05:24 (C14) 05:46 (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) 05:41 (C14)	04:44 21:59	05:24 (C14) 05:46 (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) 05:41 (C14)	04:45 21:58	05:24 (C14) 05:46 (C14)	05:41 21:05	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) 05:41 (C14)	04:47 21:57	05:25 (C14) 05:46 (C14)	05:43 21:05	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	05:20 (C14) 05:41 (C14)	04:48 21:55	05:25 (C14) 05:46 (C14)	05:45 21:05	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) 05:41 (C14)	04:50 21:54	05:26 (C14) 05:46 (C14)	05:47 21:05	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) 05:41 (C14)	04:51 21:52	05:27 (C14) 05:46 (C14)	05:49 21:05	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) 05:42 (C14)	04:53 21:51	05:28 (C14) 05:46 (C14)	05:51 21:04	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) 05:42 (C14)	04:54 21:49	05:30 (C14) 05:46 (C14)	05:53 21:05	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	05:21 (C14) 05:42 (C14)	04:56 21:48	05:31 (C14) 05:44 (C14)	05:55 21:04	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	05:21 (C14) 05:42 (C14)	04:58 21:46	05:33 (C14) 05:44 (C14)	05:57 21:04	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) 05:42 (C14)	04:59 21:45	05:35 (C14) 05:43 (C14)	05:59 21:03	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	05:22 (C14) 05:43 (C14)	05:01 21:43	05:36 (C14) 05:41 (C14)	06:01 21:03	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	05:22 (C14) 05:43 (C14)	05:03 21:41	05:37 (C14) 05:46 (C14)	06:03 21:05	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	05:23 (C14) 05:44 (C14)	05:05 21:39	05:38 (C14) 05:46 (C14)	06:05 21:07	07:07 19:07	08:09 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	05:22 (C14) 05:43 (C14)	05:07 21:37	05:39 (C14) 05:46 (C14)	06:07 21:07	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	05:23 (C14) 05:44 (C14)	05:08 21:36	05:40 (C14) 05:46 (C14)	06:09 21:06	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	05:22 (C14) 05:44 (C14)	05:10 21:34	05:41 (C14) 05:46 (C14)	06:11 21:06	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	05:23 (C14) 05:44 (C14)	05:12 21:32	05:42 (C14) 05:46 (C14)	06:13 21:07	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 21:51	05:23 (C14) 05:44 (C14)	05:12 21:30	05:43 (C14) 05:46 (C14)	06:15 21:07	07:17 18:56	08:19 16:41	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					213	651	471							
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					80	239	153							

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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) 20:55	06:39 (C14) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	07:29 (C15) 20:57	06:39 (C14) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	07:31 (C15) 21:00	06:40 (C14) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:32 (C15) 21:02	06:41 (C14) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	07:44 (C15) 21:04	06:42 (C14) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:43 (C14) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:44 (C14) 22:00
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:45 (C14) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:47 (C14) 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	06:50 (C14) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	07:01 (C14) 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	04:48 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	05:44 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	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	04:29 22:10
30	08:18 16:41	07:09 17:49	05:55 18:49	05:35 20:53	04:38 21:50	04:29 22:09
31	08:17 16:43	07:07 17:51	05:53 18:51	05:33 20:55	04:37 21:51	04:29 22:09
Potential sun hours	235	266	366	426	508	528
Total, worst case			183	674	352	682
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			48	216	129	250

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:17
	22:09	23 05:37 (C13)	21:28		20:14	18:54
2	04:31	05:14 (C13)	05:18	07:03 (C14)	06:19	18:54
	22:08	23 05:37 (C13)	21:26	5 07:08 (C14)	20:11	18:51
3	04:32	05:14 (C13)	05:20	06:59 (C14)	06:21	18:51
	22:08	23 05:37 (C13)	21:24	14 07:13 (C14)	20:09	18:48
4	04:33	05:14 (C13)	05:22	06:57 (C14)	06:23	18:48
	22:07	23 05:37 (C13)	21:22	18 07:15 (C14)	20:06	18:46
5	04:34	05:15 (C13)	05:24	06:55 (C14)	06:25	18:46
	22:07	22 05:37 (C13)	21:19	22 07:17 (C14)	20:03	18:43
6	04:35	05:15 (C13)	05:25	06:53 (C14)	06:27	18:43
	22:06	23 05:38 (C13)	21:17	25 07:18 (C14)	20:01	18:40
7	04:36	05:15 (C13)	05:27	06:52 (C14)	06:29	18:40
	22:05	23 05:38 (C13)	21:15	27 07:19 (C14)	19:58	18:38
8	04:37	05:16 (C13)	05:29	06:51 (C14)	06:31	18:38
	22:04	22 05:38 (C13)	21:13	29 07:20 (C14)	19:56	18:35
9	04:38	05:16 (C13)	05:31	06:50 (C14)	06:33	18:35
	22:03	22 05:38 (C13)	21:11	31 07:21 (C14)	19:53	18:33
10	04:40	05:16 (C13)	05:33	06:49 (C14)	06:35	18:33
	22:02	21 05:37 (C13)	21:08	33 07:22 (C14)	19:50	18:30
11	04:41	05:18 (C13)	05:35	06:49 (C14)	06:37	18:30
	22:01	20 05:38 (C13)	21:06	34 07:23 (C14)	19:47	18:27
12	04:42	05:19 (C13)	05:37	06:47 (C14)	06:39	18:27
	22:00	19 05:38 (C13)	21:04	36 07:23 (C14)	19:45	18:25
13	04:44	05:20 (C13)	05:39	06:47 (C14)	06:41	18:25
	21:59	17 05:37 (C13)	21:02	36 07:23 (C14)	19:42	18:22
14	04:45	05:21 (C13)	05:41	06:46 (C14)	06:43	18:22
	21:58	16 05:37 (C13)	20:59	37 07:23 (C14)	19:39	18:20
15	04:46	05:23 (C13)	05:43	06:46 (C14)	06:45	18:20
	21:57	14 05:37 (C13)	20:57	38 07:24 (C14)	19:37	18:17
16	04:48	05:24 (C13)	05:45	06:46 (C14)	06:47	18:17
	21:55	12 05:36 (C13)	20:54	38 07:24 (C14)	19:34	18:15
17	04:49	05:25 (C13)	05:47	06:46 (C14)	06:49	18:15
	21:54	10 05:35 (C13)	20:52	38 07:24 (C14)	19:31	18:12
18	04:51	05:27 (C13)	05:49	06:45 (C14)	06:51	18:12
	21:52	8 05:35 (C13)	20:50	39 07:24 (C14)	19:29	18:09
19	04:53	05:28 (C13)	05:51	06:44 (C14)	06:53	18:09
	21:51	5 05:33 (C13)	20:47	39 07:23 (C14)	19:26	18:07
20	04:54	05:30 (C13)	05:53	06:45 (C14)	06:55	18:07
	21:49	1 05:31 (C13)	20:45	37 07:22 (C14)	19:23	18:04
21	04:56		05:55	06:45 (C14)	06:57	18:04
	21:48		20:42	37 07:22 (C14)	19:21	18:02
22	04:58		05:57	06:45 (C14)	06:59	18:02
	21:46		20:40	37 07:22 (C14)	19:18	18:00
23	04:59		05:59	06:45 (C14)	07:01	18:00
	21:45		20:37	36 07:21 (C14)	19:15	17:57
24	05:01		06:01	06:46 (C14)	07:03	17:57
	21:43		20:35	34 07:20 (C14)	19:12	17:55
25	05:03		06:03	06:46 (C14)	07:05	17:55
	21:41		20:32	33 07:19 (C14)	19:10	17:52
26	05:05		06:05	06:47 (C14)	07:07	17:52
	21:39		20:30	31 07:18 (C14)	19:07	17:50
27	05:06		06:07	06:48 (C14)	07:09	17:50
	21:38		20:27	29 07:17 (C14)	19:04	17:48
28	05:08		06:09	06:49 (C14)	07:11	17:48
	21:36		20:24	25 07:14 (C14)	19:02	17:46
29	05:10		06:11	06:50 (C14)	07:13	17:46
	21:34		20:22	22 07:12 (C14)	18:59	17:43
30	05:12		06:13	06:52 (C14)	07:15	17:43
	21:32		20:19	17 07:09 (C14)	18:56	17:41
31	05:14		06:15	06:56 (C14)		17:40
	21:30		20:17	9 07:05 (C14)		17:38
Potential sun hours	529	469	385	324	247	216
Total, worst case	347	886	250			
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	284	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	09:08 (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	09:08 (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	09:09 (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	09:10 (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	09:11 (C13) 18:05	06:50 20:10	06:28 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	08:37 15:39
10	08:46 16:01	07:56 17:05	09:12 (C13) 18:07	06:47 20:12	06:25 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	09:13 (C13) 18:09	06:45 20:14	06:22 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	09:14 (C13) 18:11	06:42 20:16	06:20 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	09:15 (C13) 18:13	06:40 20:18	06:17 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	09:16 (C13) 18:15	06:37 20:20	06:15 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	09:17 (C13) 18:18	06:34 20:22	06:12 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	09:18 (C13) 18:20	06:32 20:24	06:09 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	09:19 (C13) 18:22	06:29 20:26	06:07 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	09:20 (C13) 18:24	06:26 20:28	06:04 21:29	04:25 22:10	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 16:18	07:36 17:26	09:21 (C13) 18:26	06:24 20:31	06:02 21:31	04:25 22:11	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	09:22 (C13) 18:28	06:21 20:33	05:59 21:33	04:25 22:12	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	09:23 (C13) 18:30	06:18 20:35	05:57 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	09:24 (C13) 18:34	06:16 20:39	05:54 21:38	04:25 22:11	04:57 21:45	05:57 20:37	06:59 19:15	08:01 17:57	08:07 15:55	08:50 15:40
23	08:30 16:26	07:26 17:34	09:25 (C13) 18:36	06:13 20:41	05:52 21:40	04:26 22:12	04:59 21:43	05:59 20:35	07:01 19:12	08:03 17:55	08:09 15:53	08:51 15:41
24	08:29 16:30	07:23 17:39	09:26 (C13) 18:41	06:10 20:43	05:49 21:42	04:26 22:10	05:01 21:41	06:01 20:32	07:03 19:10	08:05 17:52	08:11 15:52	08:50 15:41
25	08:27 16:32	07:21 17:41	09:27 (C13) 18:43	06:08 20:45	05:47 21:43	04:26 22:11	05:03 21:39	06:03 20:30	07:05 19:07	07:07 17:50	08:13 15:51	08:50 15:42
26	08:26 16:34	07:18 17:43	09:28 (C13) 18:45	06:05 20:49	05:44 21:47	04:27 22:12	05:05 21:36	06:05 20:24	07:07 19:02	07:10 17:45	08:15 15:48	08:51 15:44
27	08:24 16:36	07:16 17:45	09:29 (C13) 18:47	06:02 20:51	05:42 21:50	04:27 22:13	05:06 21:34	06:07 20:22	07:09 19:01	07:12 17:41	08:17 15:47	08:51 15:45
28	08:22 16:38	07:13 17:49	09:30 (C13) 18:49	05:59 20:53	05:40 21:51	04:28 22:14	05:08 21:32	06:09 20:19	07:11 18:56	07:14 17:41	08:19 15:46	08:51 15:46
29	08:20 16:39	07:11 17:50	09:31 (C13) 18:51	05:57 20:54	05:37 21:52	04:29 22:15	05:10 21:33	06:11 20:17	07:13 18:51	07:16 17:40	08:21 15:47	08:51 15:47
30	08:19 16:41	07:09 17:51	09:32 (C13) 18:53	05:54 20:55	05:35 21:53	04:30 22:16	05:12 21:34	06:13 20:19	07:15 18:56	07:18 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:07 17:51	09:33 (C13) 18:55	05:51 20:56	05:32 21:54	04:31 22:17	05:14 21:36	06:15 20:19	07:16 18:58	07:20 17:42	08:24 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	257	162									421	
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	20	19									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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	05:59 20:33	04:54 21:33	04:26 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	04:26 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	04:26 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	07:11 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	07:11 17:51	05:52 19:51	05:33 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March	April	May	June
1	08:51	14:01 (C13)	08:15	14:09 (C13)	07:11	06:49			05:32	04:36
	15:48	31	14:32 (C13)	16:45	35	14:44 (C13)	17:47	19:53	20:55	21:53
2	08:50	14:01 (C13)	08:13	14:10 (C13)	07:08	06:46			05:30	04:35
	15:49	32	14:33 (C13)	16:47	34	14:44 (C13)	17:50	19:55	20:57	21:54
3	08:50	14:01 (C13)	08:11	14:11 (C13)	07:06	06:43			05:28	04:34
	15:51	32	14:33 (C13)	16:50	32	14:43 (C13)	17:52	19:57	20:59	21:55
4	08:50	14:01 (C13)	08:09	14:13 (C13)	07:03	06:41			05:26	04:33
	15:52	33	14:34 (C13)	16:52	29	14:42 (C13)	17:54	19:59	21:02	21:57
5	08:49	14:02 (C13)	08:07	14:15 (C13)	07:00	06:38			05:23	04:32
	15:53	33	14:35 (C13)	16:54	26	14:41 (C13)	17:56	20:01	21:04	21:58
6	08:49	14:01 (C13)	08:05	14:16 (C13)	06:58	06:35			05:21	04:31
	15:55	35	14:36 (C13)	16:56	23	14:39 (C13)	17:58	20:03	21:06	21:59
7	08:48	14:01 (C13)	08:03	14:19 (C13)	06:55	06:33			05:19	04:30
	15:56	36	14:37 (C13)	16:59	18	14:37 (C13)	18:00	20:05	21:08	22:00
8	08:47	14:01 (C13)	08:00	14:23 (C13)	06:53	06:30			05:17	04:29
	15:58	36	14:37 (C13)	17:01	11	14:34 (C13)	18:03	20:07	21:10	22:01
9	08:47	14:02 (C13)	07:58		06:50	06:27			06:53 (C4)	05:15
	15:59	36	14:38 (C13)	17:03		18:05	20:10	4	06:57 (C4)	21:12
10	08:46	14:02 (C13)	07:56		06:47	06:25			06:50 (C4)	05:13
	16:01	37	14:39 (C13)	17:05		18:07	20:12	9	06:59 (C4)	21:14
11	08:45	14:02 (C13)	07:54		06:45	06:22			06:48 (C4)	05:10
	16:03	38	14:40 (C13)	17:08		18:09	20:14	14	07:02 (C4)	21:16
12	08:44	14:01 (C13)	07:52		06:42	06:20			06:45 (C4)	05:08
	16:04	39	14:40 (C13)	17:10		18:11	20:16	17	07:02 (C4)	21:18
13	08:43	14:02 (C13)	07:49		06:39	06:17			06:43 (C4)	05:06
	16:06	39	14:41 (C13)	17:12		18:13	20:18	20	07:03 (C4)	21:20
14	08:42	14:02 (C13)	07:47		06:37	06:14			06:42 (C4)	05:04
	16:08	40	14:42 (C13)	17:14		18:15	20:20	21	07:03 (C4)	21:22
15	08:41	14:02 (C13)	07:45		06:34	06:12			06:42 (C4)	05:02
	16:10	40	14:42 (C13)	17:17		18:17	20:22	22	07:04 (C4)	21:24
16	08:40	14:02 (C13)	07:43		06:31	06:09			06:41 (C4)	05:01
	16:12	41	14:43 (C13)	17:19		18:20	20:24	22	07:03 (C4)	21:25
17	08:39	14:02 (C13)	07:40		06:29	06:07			06:41 (C4)	04:59
	16:14	41	14:43 (C13)	17:21		18:22	20:26	22	07:03 (C4)	21:27
18	08:37	14:03 (C13)	07:38		06:26	06:04			06:40 (C4)	04:57
	16:16	41	14:44 (C13)	17:23		18:24	20:28	22	07:02 (C4)	21:29
19	08:36	14:02 (C13)	07:35		06:23	06:02			06:41 (C4)	04:55
	16:18	42	14:44 (C13)	17:25		18:26	20:30	21	07:02 (C4)	21:31
20	08:35	14:03 (C13)	07:33		06:21	05:59			06:41 (C4)	04:53
	16:20	42	14:45 (C13)	17:28		18:28	20:32	19	07:00 (C4)	21:33
21	08:33	14:03 (C13)	07:31		06:18	05:57			06:42 (C4)	04:52
	16:22	42	14:45 (C13)	17:30		18:30	20:35	18	07:00 (C4)	21:35
22	08:32	14:03 (C13)	07:28		06:15	05:54			06:43 (C4)	04:50
	16:24	42	14:45 (C13)	17:32		18:32	20:37	16	06:59 (C4)	21:36
23	08:30	14:03 (C13)	07:26		06:13	05:52			06:44 (C4)	04:48
	16:26	42	14:45 (C13)	17:34		18:34	20:39	12	06:56 (C4)	21:38
24	08:29	14:04 (C13)	07:23		06:10	05:49			06:47 (C4)	04:47
	16:28	41	14:45 (C13)	17:37		18:36	20:41	6	06:53 (C4)	21:40
25	08:27	14:05 (C13)	07:21		06:07	05:47				04:45
	16:30	41	14:46 (C13)	17:39		18:38	20:43			21:42
26	08:25	14:05 (C13)	07:18		06:05	05:44				04:44
	16:32	41	14:46 (C13)	17:41		18:40	20:45			21:43
27	08:24	14:06 (C13)	07:16		06:02	05:42				04:42
	16:34	40	14:46 (C13)	17:43		18:43	20:47			21:45
28	08:22	14:06 (C13)	07:13		05:59	05:40				04:41
	16:36	40	14:46 (C13)	17:45		18:45	20:49			21:47
29	08:20	14:07 (C13)			06:57	05:37				04:39
	16:39	39	14:46 (C13)			19:47	20:51			21:48
30	08:18	14:08 (C13)			06:54	05:35				04:38
	16:41	38	14:46 (C13)			19:49	20:53			21:50
31	08:17	14:08 (C13)			06:51					04:37
	16:43	37	14:45 (C13)			19:51				21:51
Potential sun hours	235		266		366	426		508	529	
Total, worst case	1187		208			265				
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	103		27			85				

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	9	06:58 (C4)	18:51
3	04:32	05:19	06:21	06:51 (C4)	07:21	13:52 (C13)
	22:08	21:24	20:09	4	06:55 (C4)	18:48
4	04:33	05:21	06:23	07:23	07:29	13:48 (C13)
	22:07	21:22	20:06	18:46	16:29	19
5	04:34	05:23	06:25	07:25	07:31	13:45 (C13)
	22:07	21:19	20:03	18:43	16:27	24
6	04:35	05:25	06:27	07:27	07:33	13:44 (C13)
	22:06	21:17	20:01	18:40	16:25	27
7	04:36	05:27	06:29	07:29	07:36	13:42 (C13)
	22:05	21:15	19:58	18:38	16:23	30
8	04:37	05:29	06:31	07:32	07:38	13:42 (C13)
	22:04	21:13	19:55	18:35	16:21	32
9	04:38	05:31	06:33	07:34	07:40	13:41 (C13)
	22:03	21:11	19:53	18:32	16:19	34
10	04:39	05:33	06:35	07:36	07:42	13:39 (C13)
	22:02	21:08	19:50	18:30	16:17	36
11	04:41	05:35	06:37	07:38	07:44	13:39 (C13)
	22:01	21:06	19:47	18:27	16:15	37
12	04:42	05:37	06:39	07:40	07:46	13:39 (C13)
	22:00	21:04	19:45	18:25	16:13	38
13	04:43	05:39	06:41	07:42	07:49	13:39 (C13)
	21:59	21:01	19:42	18:22	16:11	39
14	04:45	05:41	06:43	07:44	07:51	13:38 (C13)
	21:58	20:59	19:39	18:19	16:09	40
15	04:46	05:43	06:45	07:46	07:53	13:38 (C13)
	21:57	20:57	19:37	18:17	16:08	40
16	04:48	05:45	06:47	07:48	07:55	13:38 (C13)
	21:55	20:54	19:34	18:14	16:06	41
17	04:49	05:47	06:49	07:50	07:57	13:38 (C13)
	21:54	20:52	19:31	18:12	16:04	41
18	04:51	05:49	06:51	07:52	07:59	13:38 (C13)
	21:52	20:49	19:29	18:09	16:02	41
19	04:52	05:51	06:53	07:54	08:01	13:38 (C13)
	21:51	20:47	8	07:00 (C4)	19:26	18:07
20	04:54	05:53	06:55	07:57	08:03	13:38 (C13)
	21:49	20:45	13	07:02 (C4)	19:23	18:04
21	04:56	05:55	06:57	07:59	08:05	13:38 (C13)
	21:48	20:42	15	07:03 (C4)	19:20	18:02
22	04:57	05:57	06:59	08:01	08:07	13:39 (C13)
	21:46	20:40	19	07:05 (C4)	19:18	17:59
23	04:59	05:59	07:01	08:03	08:09	13:39 (C13)
	21:45	20:37	20	07:05 (C4)	19:15	17:57
24	05:01	06:01	07:03	08:05	08:11	13:40 (C13)
	21:43	20:35	21	07:06 (C4)	19:12	17:55
25	05:03	06:03	07:05	08:07	08:13	13:40 (C13)
	21:41	20:32	22	07:06 (C4)	19:10	16:52
26	05:04	06:05	07:07	08:09	08:15	13:40 (C13)
	21:39	20:29	22	07:05 (C4)	19:07	16:50
27	05:06	06:07	07:09	08:11	08:17	13:42 (C13)
	21:37	20:27	23	07:05 (C4)	19:04	16:47
28	05:08	06:09	07:11	08:13	08:19	13:42 (C13)
	21:36	20:24	22	07:04 (C4)	19:02	16:45
29	05:10	06:11	07:13	08:15	08:21	13:43 (C13)
	21:34	20:22	21	07:04 (C4)	18:59	16:43
30	05:12	06:13	07:15	08:17	08:22	13:43 (C13)
	21:32	20:19	20	07:03 (C4)	18:56	16:40
31	05:14	06:15	07:17	08:19	08:25	13:44 (C13)
	21:30	20:17	17	07:02 (C4)	18:54	16:38
Potential sun hours	529	469	385	324	247	216
Total, worst case		243	26		1022	947
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		78	7		55	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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		07:21 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 22:04	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	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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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) 19 06:19 (C13)
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 06:19 (C13)
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	05:57 (C13) 23 06:20 (C13)
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	05:56 (C13) 24 06:20 (C13)
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	05:56 (C13) 24 06:20 (C13)
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	05:56 (C13) 24 06:20 (C13)
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	05:56 (C13) 23 06:19 (C13)
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	05:57 (C13) 22 06:19 (C13)
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	05:57 (C13) 22 06:19 (C13)
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	05:57 (C13) 21 06:18 (C13)
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	05:58 (C13) 19 06:17 (C13)
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	05:58 (C13) 18 06:16 (C13)
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:00 (C13) 16 06:16 (C13)
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:01 (C13) 13 06:14 (C13)
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:03 (C13) 9 06:12 (C13)
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:12 (C13) 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:11 (C13) 22:08
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:10 (C13) 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	06:09 (C13) 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	06:08 (C13) 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:07 (C13) 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	06:06 (C13) 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	06:05 (C13) 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:04 (C13) 22:10
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	06:03 (C13) 22:10
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	06:02 (C13) 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	06:01 (C13) 22:10
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	06:00 (C13) 22:10
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	06:00 (C13) 22:10
30	08:18 16:41	07:09 17:49	05:54 18:49	05:35 20:53	04:38 21:50	06:00 (C13) 22:09
31	08:17 16:43	07:08 17:51	05:53 18:51	05:34 20:54	04:37 21:51	06:00 (C13) 22:09
Potential sun hours	235	266	366	426	508	528
Total, worst case			559	45	298	
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			141	15	110	

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	06:08 (C13) 20:14	07:17 18:54	07:49 (C14) 16:36	08:24 15:45
2	04:31 22:08	05:18 21:26	06:08 (C13) 20:11	07:19 18:51	07:51 (C14) 16:34	08:26 15:44
3	04:32 22:08	05:20 21:24	06:07 (C13) 20:09	07:21 18:48	07:53 (C14) 16:32	08:28 15:43
4	04:33 22:07	05:22 21:22	06:07 (C13) 20:06	07:23 18:46	08:07 (C14) 16:30	08:29 15:43
5	04:34 22:07	05:24 21:20	06:07 (C13) 20:03	07:25 18:43	16:27 07:33	08:31 15:42
6	04:35 22:06	05:25 21:17	06:06 (C13) 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:06 (C13) 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:06 (C13) 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:06 (C13) 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	04:40 22:02	05:33 21:08	06:06 (C13) 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:08 (C13) 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	04:42 22:00	05:37 21:04	06:09 (C13) 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	04:44 21:59	05:39 21:02	06:11 (C13) 19:42	08:01 (C14) 18:22	07:49 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:13 (C13) 19:39	08:12 (C14) 18:20	07:57 (C14) 16:10	08:43 15:38
15	04:46 21:57	05:43 20:57	06:15 (C13) 19:37	08:15 (C14) 18:17	07:55 (C14) 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	06:17 (C13) 19:34	08:17 (C14) 18:15	07:53 (C14) 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:22 (C13) 19:31	08:18 (C14) 18:12	07:55 (C14) 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	08:19 (C14) 18:09	07:52 (C14) 16:03	08:46 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	08:20 (C14) 18:07	07:55 (C14) 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	08:20 (C14) 18:04	07:57 (C14) 15:59	08:48 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	08:21 (C14) 18:02	07:59 (C14) 15:58	08:48 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:21 (C14) 18:00	08:01 (C14) 15:56	08:49 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:21 (C14) 17:57	08:03 (C14) 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:22 (C14) 17:55	08:05 (C14) 15:53	08:51 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:22 (C14) 17:52	08:07 (C14) 15:52	08:51 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:23 (C14) 17:50	08:09 (C14) 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:23 (C14) 17:48	08:11 (C14) 15:50	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:24 (C14) 17:46	08:13 (C14) 15:48	08:51 15:44
29	05:10 21:34	06:12 (C13) 20:22	07:13 18:59	08:24 (C14) 17:44	08:15 (C14) 15:47	08:51 15:45
30	05:12 21:32	06:11 (C13) 20:19	07:15 18:56	08:25 (C14) 17:42	08:17 (C14) 15:46	08:51 15:46
31	05:14 21:30	06:10 (C13) 20:17	07:17 18:54	08:26 (C14) 17:40	08:19 (C14) 15:45	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	46	300	514	56		
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	0.63		
Total reduction	0.32	0.32	0.26	0.16		
Total, real	15	97	134	9		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
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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
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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
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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	07:47 16:13	08:41 15:38
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21	08:33 16:22	07:31 17:30	06:18 18:30	06:18 20:35	05:57 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	06:16 20:37	05:54 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
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27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	05:42 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	05:40 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	05:37 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	05:35 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		05:37 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	25	07:48 (C14) 08:13 (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	24	07:48 (C14) 08:12 (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	21	07:50 (C14) 08:11 (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	17	07:52 (C14) 08:09 (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		07:25 18:43	14	07:54 (C14) 08:08 (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	9	07:56 (C14) 08:05 (C14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	6	07:21 (C14) 07:27 (C14)	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	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	11	07:18 (C14) 07:29 (C14)	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	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	16	07:16 (C14) 07:32 (C14)	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	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	20	07:13 (C14) 07:33 (C14)	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	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	23	07:10 (C14) 07:33 (C14)	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	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	25	07:09 (C14) 07:34 (C14)	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	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	26	07:08 (C14) 07:34 (C14)	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	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	27	07:07 (C14) 07:34 (C14)	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	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	26	07:08 (C14) 07:34 (C14)	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	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	27	07:07 (C14) 07:34 (C14)	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	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	26	07:07 (C14) 07:33 (C14)	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	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	25	07:07 (C14) 07:32 (C14)	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	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	23	07:08 (C14) 07:31 (C14)	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	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	22	07:08 (C14) 07:30 (C14)	05:59 20:33	04:54 21:33	04:25 22:10	04:54 21:49	06:55 19:23	08:02 (C14)	07:57 18:04	5	08:07 (C14)	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	19	07:09 (C14) 07:28 (C14)	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	06:57 19:21	07:58 (C14)	07:59 18:02	13	07:58 (C14) 08:11 (C14)	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	15	07:11 (C14) 07:26 (C14)	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	06:59 19:18	07:55 (C14)	08:01 18:00	18	07:55 (C14) 08:13 (C14)	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	8	07:14 (C14) 07:22 (C14)	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	07:01 19:15	07:53 (C14)	08:03 17:57	21	07:53 (C14) 08:14 (C14)	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	07:52 (C14)	08:05 17:55	23	07:52 (C14) 08:15 (C14)	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	07:51 (C14)	07:07 16:52	24	07:51 (C14) 08:15 (C14)	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	07:50 (C14)	07:10 16:50	25	07:50 (C14) 08:15 (C14)	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	07:49 (C14)	07:12 16:48	26	07:49 (C14) 08:15 (C14)	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	07:48 (C14)	07:14 16:45	27	07:48 (C14) 08:15 (C14)	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	07:48 (C14)	07:16 16:43	28	07:48 (C14) 08:15 (C14)	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	07:48 (C14)	07:18 16:41	29	07:48 (C14) 08:14 (C14)	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		05:33 21:51	04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38				15:46 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324			247	216
Total, worst case				345							235		110			
Sun reduction				0.41							0.43		0.26			
Oper. time red.				0.98							0.98		0.98			
Wind dir. red.				0.62							0.62		0.62			
Total reduction				0.25							0.26		0.16			
Total, real				87							61		17			

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	23	07:46 (C14) 08:09 (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	20	07:48 (C14) 08:08 (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	16	07:50 (C14) 08:06 (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	12	07:52 (C14) 08:04 (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	04:34 21:58	04:34 22:07	05:24 21:20	06:25 20:04		07:25 18:43	7	07:54 (C14) 08:01 (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	4	07:22 (C14) 07:16 (C14)	20:08 20:28	21:10 21:12	22:01 22:02	21:13 21:11	19:56 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	10	07:26 (C14) 07:13 (C14)	20:10 20:25	21:12 21:13	22:02 22:03	21:11 21:08	19:53 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	14	07:27 (C14) 07:10 (C14)	20:12 20:22	21:14 21:14	22:03 22:02	21:08 21:05	19:50 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	18	07:28 (C14) 07:06 (C14)	20:14 20:17	21:16 21:18	22:04 22:00	21:06 21:04	19:48 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	22	07:30 (C14) 07:05 (C14)	20:16 20:15	21:18 21:20	22:05 22:06	21:04 21:02	19:45 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	24	07:30 (C14) 07:05 (C14)	20:18 20:20	21:20 21:22	22:06 22:07	21:59 21:58	19:42 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	25	07:30 (C14) 07:04 (C14)	20:20 20:22	21:22 21:24	22:07 22:07	21:58 21:57	19:39 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	26	07:30 (C14) 07:03 (C14)	20:22 20:24	21:24 21:26	22:07 22:08	21:57 21:55	19:37 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	26	07:30 (C14) 07:04 (C14)	20:24 20:26	21:26 21:27	22:08 22:08	21:55 21:54	19:34 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	27	07:30 (C14) 07:04 (C14)	20:26 20:28	21:27 21:29	22:08 22:09	21:54 21:52	19:31 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	26	07:29 (C14) 07:04 (C14)	20:28 20:31	21:29 21:31	22:09 22:09	21:52 21:51	19:29 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	25	07:29 (C14) 07:04 (C14)	20:31 20:33	21:31 21:33	22:09 22:10	21:51 21:49	19:26 19:23	5	08:04 (C14) 07:55 (C14)			08:04 16:03	08:47 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	23	07:27 (C14) 07:04 (C14)	20:33 20:35	21:33 21:35	22:10 22:10	21:49 21:48	19:23 19:21	13	08:08 (C14) 07:52 (C14)			18:04 16:02	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	22	07:26 (C14) 07:06 (C14)	20:35 20:37	21:35 21:37	22:10 22:10	21:48 21:46	19:21 19:18	18	08:10 (C14) 07:50 (C14)			18:02 16:01	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	19	07:25 (C14) 07:07 (C14)	20:37 20:39	21:37 21:38	22:10 22:10	21:46 21:45	19:18 19:15	21	08:11 (C14) 07:49 (C14)			18:00 16:00	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	15	07:22 (C14) 07:10 (C14)	20:39 20:41	21:38 21:40	22:10 22:10	21:45 21:43	19:15 19:12	23	08:12 (C14) 07:48 (C14)			17:57 16:00	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	8	07:18 (C14) 05:47	20:41 20:43	21:40 21:42	22:10 22:10	21:43 21:41	19:12 19:10	24	08:12 (C14) 07:47 (C14)			17:55 16:00	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41			20:45 21:43	21:44 21:46	22:10 22:10	21:41 21:39	19:10 19:07	25	08:12 (C14) 07:46 (C14)			16:52 16:50	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43			20:46 21:45	21:47 21:48	22:10 22:10	21:41 21:39	19:09 19:04	26	07:46 (C14) 08:12 (C14)			16:48 16:44	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45			20:47 20:49	21:45 21:47	22:10 22:10	21:38 21:36	19:04 19:02	26	07:45 (C14) 08:12 (C14)			17:14 16:45	08:51 15:44
29	08:20 16:39		06:57 19:47			20:53 20:51	21:48 21:48	22:10 22:10	21:45 21:34	19:13 18:59	27	07:45 (C14) 08:11 (C14)			07:16 16:43	08:51 15:45
30	08:19 16:41		06:54 19:49			20:53 21:50	21:48 21:50	22:09 22:09	21:45 21:32	19:13 18:56	26	07:45 (C14) 08:10 (C14)			07:18 16:41	08:51 15:46
31	08:17 16:43		06:52 19:51				21:51 21:51		21:30 21:30		25	08:10 (C14) 07:20			15:46 16:38	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case			334							259		78				
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			84							68		12				

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March			April			May			June		
1	08:51		09:32 (C14)	08:15		09:39 (C14)	07:11		06:49		07:54 (C13)	05:33		04:36				
	15:48	15	09:47 (C14)	16:45	21	10:00 (C14)	17:48		19:53	16	08:10 (C13)	20:55		21:53				
2	08:50		09:33 (C14)	08:13		09:41 (C14)	07:08		06:46		07:56 (C13)	05:30		04:35				
	15:49	16	09:49 (C14)	16:48	17	09:58 (C14)	17:50		19:55	10	08:06 (C13)	20:58		21:54				
3	08:50		09:32 (C14)	08:11		09:44 (C14)	07:06		06:43			05:28		04:34				
	15:51	17	09:49 (C14)	16:50	12	09:56 (C14)	17:52		19:57			21:00		21:55				
4	08:50		09:32 (C14)	08:09		09:49 (C14)	07:03		06:41			05:26		04:33				
	15:52	18	09:50 (C14)	16:52	3	09:52 (C14)	17:54		19:59			21:02		21:57				
5	08:49		09:32 (C14)	08:07			07:01		06:38			05:23		04:32				
	15:53	20	09:52 (C14)	16:54			17:56		20:01			21:04		21:58				
6	08:49		09:32 (C14)	08:05			06:58		06:36			05:21		04:31				
	15:55	21	09:53 (C14)	16:56			17:58		20:03			21:06		21:59				
7	08:48		09:31 (C14)	08:03			06:55		06:33			05:19		04:30				
	15:56	23	09:54 (C14)	16:59			18:01		20:06			21:08		22:00				
8	08:48		09:31 (C14)	08:01			06:53		06:30			05:17		04:29				
	15:58	23	09:54 (C14)	17:01			18:03		20:08			21:10		22:01				
9	08:47		09:31 (C14)	07:58			06:50		06:28			05:15		04:29				
	16:00	24	09:55 (C14)	17:03			18:05		20:10			21:12		22:02				
10	08:46		09:31 (C14)	07:56			06:47		06:25			05:13		04:28				
	16:01	25	09:56 (C14)	17:05			18:07		20:12			21:14		22:03				
11	08:45		09:31 (C14)	07:54			06:45		06:22			05:11		04:27				
	16:03	26	09:57 (C14)	17:08			18:09		20:14			21:16		22:04				
12	08:44		09:32 (C14)	07:52			06:42		06:20			05:09		04:27				
	16:05	26	09:58 (C14)	17:10			18:11		20:16			21:18		22:05				
13	08:43		09:31 (C14)	07:50			06:40		06:17			05:07		04:26				
	16:06	27	09:58 (C14)	17:12			18:13		20:18			21:20		22:06				
14	08:42		09:31 (C14)	07:47			06:37		06:15			05:05		04:26				
	16:08	28	09:59 (C14)	17:14			18:15		20:20			21:22		22:07				
15	08:41		09:32 (C14)	07:45			06:34		06:12			05:03		04:26				
	16:10	29	10:01 (C14)	17:17			18:18	9	07:03 (C13)	20:22		21:24		22:07				
16	08:40		09:31 (C14)	07:43			06:32		06:09			05:01		04:26				
	16:12	30	10:01 (C14)	17:19			18:20	16	07:15 (C13)	20:24		21:26		22:08				
17	08:39		09:32 (C14)	07:40			06:29		06:07			04:59		04:25				
	16:14	30	10:02 (C14)	17:21			18:22	21	07:17 (C13)	20:26		21:27		22:08				
18	08:38		09:31 (C14)	07:38			06:26		06:04			04:57		04:25				
	16:16	31	10:02 (C14)	17:23			18:24	23	07:17 (C13)	20:28		21:29		22:09				
19	08:36		09:31 (C14)	07:36			06:24		06:02			04:55		04:25				
	16:18	31	10:02 (C14)	17:26			18:26	25	07:19 (C13)	20:31		21:31		22:09				
20	08:35		09:32 (C14)	07:33			06:21		06:52 (C13)	05:59		04:53		04:25				
	16:20	31	10:03 (C14)	17:28			18:28	27	07:19 (C13)	20:33		21:33		22:10				
21	08:33		09:32 (C14)	07:31			06:18		06:51 (C13)	05:57		04:52		04:25				
	16:22	31	10:03 (C14)	17:30			18:30	28	07:19 (C13)	20:35		21:35		22:10				
22	08:32		09:32 (C14)	07:28			06:16		06:51 (C13)	05:54		04:50		04:26				
	16:24	31	10:03 (C14)	17:32			18:32	29	07:20 (C13)	20:37		21:37		22:10				
23	08:30		09:32 (C14)	07:26			06:13		06:50 (C13)	05:52		04:48		04:26				
	16:26	31	10:03 (C14)	17:34			18:34	30	07:20 (C13)	20:39		21:38		22:10				
24	08:29		09:34 (C14)	07:23			06:10		06:49 (C13)	05:49		04:47		04:26				
	16:28	30	10:04 (C14)	17:37			18:36	30	07:19 (C13)	20:41		21:40		22:10				
25	08:27		09:34 (C14)	07:21			06:08		06:50 (C13)	05:47		04:45		04:26				
	16:30	30	10:04 (C14)	17:39			18:38	29	07:19 (C13)	20:43		21:42		22:10				
26	08:26		09:34 (C14)	07:18			06:05		06:49 (C13)	05:44		04:44		04:27				
	16:32	30	10:04 (C14)	17:41			18:41	30	07:19 (C13)	20:45		21:43		22:10				
27	08:24		09:35 (C14)	07:16			06:02		06:49 (C13)	05:42		04:42		04:27				
	16:34	29	10:04 (C14)	17:43			18:43	28	07:17 (C13)	20:47		21:45		22:10				
28	08:22		09:36 (C14)	07:13			05:59		06:50 (C13)	05:40		04:41		04:28				
	16:37	27	10:03 (C14)	17:45			18:45	27	07:17 (C13)	20:49		21:47		22:10				
29	08:20		09:37 (C14)				06:57		07:50 (C13)	05:37		04:40		04:29				
	16:39	26	10:03 (C14)				19:47	26	08:16 (C13)	20:51		21:48		22:10				
30	08:19		09:38 (C14)				06:54		07:51 (C13)	05:35		04:38		04:29				
	16:41	24	10:02 (C14)				19:49	23	08:14 (C13)	20:53		21:50		22:09				
31	08:17		09:39 (C14)				06:51		07:52 (C13)			04:37						
	16:43	23	10:02 (C14)				19:51	21	08:13 (C13)			21:51						
Potential sun hours	235			266			366		426			508		529				
Total, worst case	803			53			422		26									
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			0.61			0.64		0.64									
Total reduction	0.08			0.12			0.25		0.31									
Total, real	62			6			107		8									

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	09:13 (C14) 26 09:39 (C14)		
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	09:14 (C14) 25 09:39 (C14)		
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43	09:14 (C14) 24 09:38 (C14)		
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	09:15 (C14) 24 09:39 (C14)		
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	09:17 (C14) 22 09:39 (C14)		
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	09:18 (C14) 21 09:39 (C14)		
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:17 (C14) 09:23 (C14)	08:34 15:40	09:18 (C14) 20 09:38 (C14)	
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	09:14 (C14) 09:28 (C14)	08:35 15:40	09:20 (C14) 18 09:38 (C14)	
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	09:12 (C14) 09:29 (C14)	08:37 15:39	09:20 (C14) 18 09:38 (C14)	
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:11 (C14) 09:32 (C14)	08:38 15:39	09:22 (C14) 16 09:38 (C14)	
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:10 (C14) 09:33 (C14)	08:39 15:39	09:22 (C14) 15 09:37 (C14)	
12	04:42 22:00	05:37 21:04	06:39 19:45	07:44 (C13) 08:04 (C13)	07:40 18:25	07:46 16:13	09:08 (C14) 09:33 (C14)	08:40 15:38	09:24 (C14) 14 09:38 (C14)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 (C13) 08:05 (C13)	07:42 18:22	07:49 16:11	09:08 (C14) 09:35 (C14)	08:42 15:38	09:25 (C14) 12 09:37 (C14)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:41 (C13) 08:06 (C13)	07:44 18:20	07:51 16:09	09:08 (C14) 09:35 (C14)	08:43 15:38	09:26 (C14) 11 09:37 (C14)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:40 (C13) 08:06 (C13)	07:46 18:17	07:53 16:08	09:07 (C14) 09:36 (C14)	08:44 15:38	09:27 (C14) 10 09:37 (C14)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:39 (C13) 08:07 (C13)	07:48 18:14	07:55 16:06	09:07 (C14) 09:37 (C14)	08:45 15:38	09:28 (C14) 8 09:36 (C14)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:38 (C13) 08:07 (C13)	07:50 18:12	07:57 16:04	09:07 (C14) 09:37 (C14)	08:46 15:38	09:30 (C14) 6 09:36 (C14)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:37 (C13) 08:07 (C13)	07:52 18:09	07:59 16:02	09:08 (C14) 09:38 (C14)	08:46 15:38	09:31 (C14) 5 09:36 (C14)
19	04:53 21:51	05:51 20:47	06:53 19:26	07:37 (C13) 08:07 (C13)	07:55 18:07	08:01 16:01	09:07 (C14) 09:38 (C14)	08:47 15:38	09:32 (C14) 3 09:35 (C14)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:36 (C13) 08:06 (C13)	07:57 18:04	08:03 15:59	09:07 (C14) 09:38 (C14)	08:48 15:39	09:33 (C14) 2 09:35 (C14)
21	04:56 21:48	05:55 20:42	06:57 19:21	07:36 (C13) 08:06 (C13)	07:59 18:02	08:05 15:58	09:07 (C14) 09:38 (C14)	08:49 15:39	
22	04:58 21:46	05:57 20:40	06:59 19:18	07:36 (C13) 08:05 (C13)	08:01 18:00	08:07 15:56	09:08 (C14) 09:39 (C14)	08:49 15:40	
23	04:59 21:45	05:59 20:37	07:01 19:15	07:37 (C13) 08:04 (C13)	08:03 17:57	08:09 15:55	09:08 (C14) 09:39 (C14)	08:50 15:40	
24	05:01 21:43	06:01 20:35	07:03 19:12	07:37 (C13) 08:03 (C13)	08:05 17:55	08:11 15:53	09:08 (C14) 09:39 (C14)	08:50 15:41	09:35 (C14) 3 09:38 (C14)
25	05:03 21:41	06:03 20:32	07:05 19:10	07:38 (C13) 08:02 (C13)	08:13 17:52	08:19 15:52	09:09 (C14) 09:39 (C14)	08:50 15:41	09:34 (C14) 5 09:39 (C14)
26	05:05 21:39	06:05 20:30	07:07 19:07	07:39 (C13) 08:00 (C13)	08:15 17:50	08:21 15:51	09:10 (C14) 09:40 (C14)	08:51 15:42	09:34 (C14) 6 09:40 (C14)
27	05:06 21:38	06:07 20:27	07:09 19:04	07:40 (C13) 07:58 (C13)	08:17 17:48	08:23 15:49	09:11 (C14) 09:40 (C14)	08:51 15:43	09:33 (C14) 8 09:41 (C14)
28	05:08 21:36	06:09 20:24	07:11 19:02	07:42 (C13) 07:55 (C13)	08:19 17:46	08:25 15:48	09:11 (C14) 09:40 (C14)	08:51 15:44	09:33 (C14) 9 09:42 (C14)
29	05:10 21:34	06:11 20:22	07:13 18:59		07:16 16:43	08:21 15:47	09:12 (C14) 09:40 (C14)	08:51 15:45	09:33 (C14) 10 09:43 (C14)
30	05:12 21:32	06:13 20:19	07:15 18:56		07:18 16:41	08:22 15:46	09:13 (C14) 09:39 (C14)	08:51 15:46	09:33 (C14) 12 09:45 (C14)
31	05:14 21:30	06:15 20:17			07:20 16:38			08:51 15:47	09:33 (C14) 13 09:46 (C14)
Potential sun hours	529	469	385		324	247		216	
Total, worst case			454			637		366	
Sun reduction			0.43			0.08		0.07	
Oper. time red.			0.98			0.98		0.98	
Wind dir. red.			0.64			0.61		0.61	
Total reduction			0.26			0.05		0.04	
Total, real			119			31		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:

09/04/2024 19:14/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 22:04	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	08:41 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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				278		879
Sun reduction				0.50		0.56
Oper. time red.				0.98		0.98
Wind dir. red.				0.66		0.67
Total reduction				0.32		0.37
Total, real				90	342	321

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July			August			September			October	November	December
1	04:30		06:02 (C14)	05:16		06:04 (C14)	06:17		06:56 (C15)	07:17	07:23	08:24
	22:09	29	06:31 (C14)	21:28	32	06:36 (C14)	20:14	23	07:19 (C15)	18:54	16:36	15:45
2	04:31		06:01 (C14)	05:18		06:03 (C14)	06:19		06:55 (C15)	07:19	07:25	08:26
	22:08	30	06:31 (C14)	21:26	32	06:35 (C14)	20:11	24	07:19 (C15)	18:51	16:34	15:44
3	04:32		06:01 (C14)	05:20		06:04 (C14)	06:21		06:55 (C15)	07:21	07:27	08:28
	22:08	30	06:31 (C14)	21:24	30	06:34 (C14)	20:09	23	07:18 (C15)	18:48	16:32	15:43
4	04:33		06:01 (C14)	05:22		06:06 (C14)	06:23		06:55 (C15)	07:23	07:29	08:29
	22:07	31	06:32 (C14)	21:22	27	06:33 (C14)	20:06	23	07:18 (C15)	18:46	16:30	15:43
5	04:34		06:01 (C14)	05:24		06:07 (C14)	06:25		06:56 (C15)	07:25	07:31	08:31
	22:07	32	06:33 (C14)	21:19	25	06:32 (C14)	20:03	21	07:17 (C15)	18:43	16:27	15:42
6	04:35		06:01 (C14)	05:25		06:07 (C14)	06:27		06:57 (C15)	07:28	07:33	08:32
	22:06	32	06:33 (C14)	21:17	23	06:30 (C14)	20:01	19	07:16 (C15)	18:40	16:25	15:41
7	04:36		06:01 (C14)	05:27		06:09 (C14)	06:29		06:58 (C15)	07:30	07:36	08:34
	22:05	32	06:33 (C14)	21:15	19	06:28 (C14)	19:58	15	07:13 (C15)	18:38	16:23	15:40
8	04:37		06:01 (C14)	05:29		06:12 (C14)	06:31		07:00 (C15)	07:32	07:38	08:35
	22:04	33	06:34 (C14)	21:13	14	06:26 (C14)	19:55	11	07:11 (C15)	18:35	16:21	15:40
9	04:38		06:00 (C14)	05:31		06:17 (C14)	06:33		07:02 (C15)	07:34	07:40	08:37
	22:03	34	06:34 (C14)	21:11	4	06:21 (C14)	19:53	6	07:08 (C15)	18:33	16:19	15:39
10	04:40		06:00 (C14)	05:33			06:35			07:36	07:42	08:38
	22:02	34	06:34 (C14)	21:08			19:50			18:30	16:17	15:39
11	04:41		06:01 (C14)	05:35			06:37			07:38	07:44	08:39
	22:01	35	06:36 (C14)	21:06			19:47			18:27	16:15	15:39
12	04:42		06:01 (C14)	05:37			06:39			07:40	07:46	08:40
	22:00	35	06:36 (C14)	21:04			19:45			18:25	16:13	15:38
13	04:44		06:00 (C14)	05:39			06:41			07:42	07:49	08:41
	21:59	36	06:36 (C14)	21:02			19:42			18:22	16:11	15:38
14	04:45		06:00 (C14)	05:41			06:43			07:44	07:51	08:43
	21:58	36	06:36 (C14)	20:59			19:39			18:20	16:10	15:38
15	04:46		06:01 (C14)	05:43			06:45			07:46	07:53	08:44
	21:57	36	06:37 (C14)	20:57			19:37			18:17	16:08	15:38
16	04:48		06:00 (C14)	05:45			06:47			07:48	07:55	08:45
	21:55	37	06:37 (C14)	20:54			19:34			18:15	16:06	15:38
17	04:49		06:00 (C14)	05:47			06:49			07:50	07:57	08:45
	21:54	37	06:37 (C14)	20:52			19:31			18:12	16:04	15:38
18	04:51		06:00 (C14)	05:49			06:51			07:52	07:59	08:46
	21:52	38	06:38 (C14)	20:50			19:29			18:09	16:03	15:38
19	04:53		06:00 (C14)	05:51			06:53			07:55	08:01	08:47
	21:51	38	06:38 (C14)	20:47			19:26			18:07	16:01	15:38
20	04:54		06:00 (C14)	05:53			06:55			07:57	08:03	08:48
	21:49	38	06:38 (C14)	20:45			19:23			18:04	15:59	15:39
21	04:56		06:00 (C14)	05:55			06:57			07:59	08:05	08:48
	21:48	38	06:38 (C14)	20:42			19:21			18:02	15:58	15:39
22	04:58		06:00 (C14)	05:57			06:59			08:01	08:07	08:49
	21:46	38	06:38 (C14)	20:40			19:18			18:00	15:56	15:40
23	04:59		06:00 (C14)	05:59			07:01			08:03	08:09	08:49
	21:45	38	06:38 (C14)	20:37			19:15			17:57	15:55	15:40
24	05:01		06:00 (C14)	06:01			07:03			08:05	08:11	08:50
	21:43	38	06:38 (C14)	20:35			19:12			17:55	15:53	15:41
25	05:03		06:01 (C14)	06:03		07:07 (C15)	07:05			07:07	08:13	08:50
	21:41	38	06:39 (C14)	20:32	5	07:12 (C15)	19:10			16:52	15:52	15:41
26	05:05		06:00 (C14)	06:05		07:03 (C15)	07:07			07:10	08:15	08:51
	21:39	38	06:38 (C14)	20:30	12	07:15 (C15)	19:07			16:50	15:51	15:42
27	05:06		06:01 (C14)	06:07		07:01 (C15)	07:09			07:12	08:17	08:51
	21:37	37	06:38 (C14)	20:27	16	07:17 (C15)	19:04			16:48	15:50	15:43
28	05:08		06:02 (C14)	06:09		06:59 (C15)	07:11			07:14	08:19	08:51
	21:36	36	06:38 (C14)	20:24	18	07:17 (C15)	19:02			16:45	15:48	15:44
29	05:10		06:01 (C14)	06:11		06:58 (C15)	07:13			07:16	08:21	08:51
	21:34	36	06:37 (C14)	20:22	20	07:18 (C15)	18:59			16:43	15:47	15:45
30	05:12		06:02 (C14)	06:13		06:57 (C15)	07:15			07:18	08:22	08:51
	21:32	35	06:37 (C14)	20:19	21	07:18 (C15)	18:56			16:41	15:46	15:46
31	05:14		06:03 (C14)	06:15		06:56 (C15)				07:20		08:51
	21:30	34	06:37 (C14)	20:17	23	07:19 (C15)				16:38		15:47
Potential sun hours	529			469			385			324	248	216
Total, worst case		1089			321		165					
Sun reduction		0.49			0.50		0.43					
Oper. time red.		0.98			0.98							
Wind dir. red.		0.67			0.66		0.66					
Total reduction		0.32			0.32		0.28					
Total, real		351			104		45					

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)
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Project:

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Licensed user:

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Vilandes 3-6

LV-1010 Riga

0037167242411

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Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:22 (C15) 20:55	06:24 (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	06:24 (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	06:24 (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	06:24 (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	06:24 (C14) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	07:23 (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	07:24 (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	07:27 (C15) 21:10	06:25 (C14) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:25 (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	06:27 (C14) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:28 (C14) 22:08
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:28 (C14) 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:30 (C14) 22:08
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:31 (C14) 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	06:32 (C14) 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	06:33 (C14) 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:36 (C14) 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	06:37 (C14) 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	06:41 (C14) 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:47 (C14) 22:10
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	04:45 21:42	06:49 (C14) 22:10
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	06:50 (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	06:52 (C14) 22:10
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	06:53 (C14) 22:10
30	08:18 16:41	07:09 17:49	05:54 18:49	05:35 20:53	04:38 21:50	06:54 (C14) 22:10
31	08:17 16:43	07:08 17:51	05:53 18:51	05:34 20:54	04:37 21:51	06:55 (C14) 22:10
Potential sun hours	235	266	366	426	508	528
Total, worst case			126	522	735	510
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			33	167	266	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	36 07:12 (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	38 07:13 (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	38 07:13 (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	39 07:14 (C14)	20:06	8 07:33 (C15)
5	04:34	05:11 (C13)	05:24	06:35 (C14)	06:25	07:22 (C15)
	22:07	14 05:25 (C13)	21:19	39 07:14 (C14)	20:03	13 07:35 (C15)
6	04:35	05:12 (C13)	05:25	06:34 (C14)	06:27	07:20 (C15)
	22:06	13 05:25 (C13)	21:17	40 07:14 (C14)	20:01	17 07:37 (C15)
7	04:36	05:13 (C13)	05:27	06:34 (C14)	06:29	07:17 (C15)
	22:05	12 05:25 (C13)	21:15	40 07:14 (C14)	19:58	20 07:37 (C15)
8	04:37	05:14 (C13)	05:29	06:34 (C14)	06:31	07:16 (C15)
	22:04	10 05:24 (C13)	21:13	40 07:14 (C14)	19:55	21 07:37 (C15)
9	04:38	05:15 (C13)	05:31	06:34 (C14)	06:33	07:15 (C15)
	22:03	9 05:24 (C13)	21:11	40 07:14 (C14)	19:53	23 07:38 (C15)
10	04:40	05:16 (C13)	05:33	06:34 (C14)	06:35	07:14 (C15)
	22:02	7 05:23 (C13)	21:08	40 07:14 (C14)	19:50	24 07:38 (C15)
11	04:41	05:18 (C13)	05:35	06:34 (C14)	06:37	07:14 (C15)
	22:01	5 05:23 (C13)	21:06	40 07:14 (C14)	19:47	24 07:38 (C15)
12	04:42	05:19 (C13)	05:37	06:33 (C14)	06:39	07:14 (C15)
	22:00	2 05:21 (C13)	21:04	40 07:13 (C14)	19:45	23 07:37 (C15)
13	04:44		05:39	06:33 (C14)	06:41	07:14 (C15)
	21:59		21:02	40 07:13 (C14)	19:42	23 07:37 (C15)
14	04:45		05:41	06:33 (C14)	06:43	07:14 (C15)
	21:58		20:59	39 07:12 (C14)	19:39	22 07:36 (C15)
15	04:46		05:43	06:34 (C14)	06:45	07:14 (C15)
	21:57		20:57	38 07:12 (C14)	19:37	21 07:35 (C15)
16	04:48		05:45	06:34 (C14)	06:47	07:16 (C15)
	21:55		20:54	37 07:11 (C14)	19:34	18 07:34 (C15)
17	04:49		05:47	06:35 (C14)	06:49	07:18 (C15)
	21:54		20:52	36 07:11 (C14)	19:31	14 07:32 (C15)
18	04:51		05:49	06:36 (C14)	06:51	07:20 (C15)
	21:52		20:50	34 07:10 (C14)	19:29	9 07:29 (C15)
19	04:53		05:51	06:36 (C14)	06:53	07:55
	21:51		20:47	32 07:08 (C14)	19:26	18:07
20	04:54		05:53	06:37 (C14)	06:55	07:57
	21:49		20:45	29 07:06 (C14)	19:23	18:04
21	04:56	06:48 (C14)	05:55	06:38 (C14)	06:57	07:59
	21:48	10 06:58 (C14)	20:42	27 07:05 (C14)	19:21	18:02
22	04:58	06:46 (C14)	05:57	06:40 (C14)	06:59	08:01
	21:46	15 07:01 (C14)	20:40	23 07:03 (C14)	19:18	18:00
23	04:59	06:44 (C14)	05:59	06:42 (C14)	07:01	08:03
	21:45	19 07:03 (C14)	20:37	19 07:01 (C14)	19:15	17:57
24	05:01	06:43 (C14)	06:01	06:45 (C14)	07:03	08:05
	21:43	22 07:05 (C14)	20:35	12 06:57 (C14)	19:12	17:55
25	05:03	06:42 (C14)	06:03		07:05	07:07
	21:41	24 07:06 (C14)	20:32		19:10	16:52
26	05:05	06:40 (C14)	06:05		07:07	07:10
	21:39	27 07:07 (C14)	20:30		19:07	16:50
27	05:06	06:40 (C14)	06:07		07:09	07:12
	21:37	28 07:08 (C14)	20:27		19:04	16:48
28	05:08	06:39 (C14)	06:09		07:11	07:14
	21:36	31 07:10 (C14)	20:24		19:02	16:45
29	05:10	06:38 (C14)	06:11		07:13	07:16
	21:34	32 07:10 (C14)	20:22		18:59	16:43
30	05:12	06:37 (C14)	06:13		07:15	07:18
	21:32	34 07:11 (C14)	20:19		18:56	16:41
31	05:14	06:37 (C14)	06:15			07:20
	21:30	35 07:12 (C14)	20:17			16:38
Potential sun hours	529		469	385	324	247
Total, worst case	415		836	280		
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	131		266	77		

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January			February			March	April	May			June
1	08:51		10:32 (C13)	08:15		10:49 (C13)	07:11	06:49	05:32			04:36
	15:48	41	11:13 (C13)	16:45	27	11:16 (C13)	17:48	19:53	20:55			21:53
2	08:50		10:33 (C13)	08:13		10:51 (C13)	07:08	06:46	05:30		05:58 (C1)	04:35
	15:49	42	11:15 (C13)	16:47	24	11:15 (C13)	17:50	19:55	20:57	5	06:03 (C1)	21:54
3	08:50		10:33 (C13)	08:11		10:53 (C13)	07:06	06:43	05:28		05:56 (C1)	04:34
	15:51	42	11:15 (C13)	16:50	20	11:13 (C13)	17:52	19:57	21:00	9	06:05 (C1)	21:55
4	08:50		10:33 (C13)	08:09		10:57 (C13)	07:03	06:41	05:26		05:54 (C1)	04:33
	15:52	42	11:15 (C13)	16:52	13	11:10 (C13)	17:54	19:59	21:02	13	06:07 (C1)	21:57
5	08:49		10:34 (C13)	08:07			07:00	06:38	05:23		05:52 (C1)	04:32
	15:53	42	11:16 (C13)	16:54			17:56	20:01	21:04	16	06:08 (C1)	21:58
6	08:49		10:34 (C13)	08:05			06:58	06:35	05:21		05:50 (C1)	04:31
	15:55	43	11:17 (C13)	16:56			17:58	20:03	21:06	19	06:09 (C1)	21:59
7	08:48		10:34 (C13)	08:03			06:55	06:33	05:19		05:49 (C1)	04:30
	15:56	43	11:17 (C13)	16:59			18:00	20:05	21:08	20	06:09 (C1)	22:00
8	08:48		10:34 (C13)	08:01			06:53	06:30	05:17		05:48 (C1)	04:29
	15:58	44	11:18 (C13)	17:01			18:03	20:08	21:10	21	06:09 (C1)	22:01
9	08:47		10:35 (C13)	07:58			06:50	06:28	05:15		05:48 (C1)	04:28
	15:59	43	11:18 (C13)	17:03			18:05	20:10	21:12	22	06:10 (C1)	22:02
10	08:46		10:35 (C13)	07:56			06:47	06:25	05:13		05:48 (C1)	04:28
	16:01	44	11:19 (C13)	17:05			18:07	20:12	21:14	22	06:10 (C1)	22:03
11	08:45		10:36 (C13)	07:54			06:45	06:22	05:11		05:47 (C1)	04:27
	16:03	43	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	22	06:09 (C1)	22:05
13	08:43		10:36 (C13)	07:49			06:40	06:17	05:06		05:47 (C1)	04:26
	16:06	44	11:20 (C13)	17:12			18:13	20:18	21:20	22	06:09 (C1)	22:06
14	08:42		10:36 (C13)	07:47			06:37	06:14	05:04		05:48 (C1)	04:26
	16:08	45	11:21 (C13)	17:14			18:15	20:20	21:22	21	06:09 (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	21	06:09 (C1)	22:07
16	08:40		10:37 (C13)	07:43			06:32	06:09	05:01		05:49 (C1)	04:25
	16:12	44	11:21 (C13)	17:19			18:20	20:24	21:25	19	06:08 (C1)	22:08
17	08:39		10:38 (C13)	07:40			06:29	06:07	04:59		05:50 (C1)	04:25
	16:14	44	11:22 (C13)	17:21			18:22	20:26	21:27	18	06:08 (C1)	22:08
18	08:37		10:38 (C13)	07:38			06:26	06:04	04:57		05:50 (C1)	04:25
	16:16	44	11:22 (C13)	17:23			18:24	20:28	21:29	17	06:07 (C1)	22:09
19	08:36		10:38 (C13)	07:35			06:24	06:02	04:55		05:51 (C1)	04:25
	16:18	44	11:22 (C13)	17:26			18:26	20:30	21:31	14	06:05 (C1)	22:09
20	08:35		10:39 (C13)	07:33			06:21	05:59	04:53		05:52 (C1)	04:25
	16:20	43	11:22 (C13)	17:28			18:28	20:33	21:33	13	06:05 (C1)	22:10
21	08:33		10:39 (C13)	07:31			06:18	05:57	04:52		05:54 (C1)	04:25
	16:22	43	11:22 (C13)	17:30			18:30	20:35	21:35	9	06:03 (C1)	22:10
22	08:32		10:39 (C13)	07:28			06:16	05:54	04:50		05:57 (C1)	04:25
	16:24	43	11:22 (C13)	17:32			18:32	20:37	21:37	3	06:00 (C1)	22:10
23	08:30		10:40 (C13)	07:26			06:13	05:52	04:48			04:26
	16:26	42	11:22 (C13)	17:34			18:34	20:39	21:38			22:10
24	08:29		10:41 (C13)	07:23			06:10	05:49	04:47			04:26
	16:28	42	11:23 (C13)	17:37			18:36	20:41	21:40			22:10
25	08:27		10:42 (C13)	07:21			06:07	05:47	04:45			04:26
	16:30	40	11:22 (C13)	17:39			18:38	20:43	21:42			22:10
26	08:26		10:43 (C13)	07:18			06:05	05:44	04:44			04:27
	16:32	39	11:22 (C13)	17:41			18:41	20:45	21:43			22:10
27	08:24		10:43 (C13)	07:16			06:02	05:42	04:42			04:27
	16:34	38	11:21 (C13)	17:43			18:43	20:47	21:45			22:10
28	08:22		10:44 (C13)	07:13			05:59	05:40	04:41			04:28
	16:36	37	11:21 (C13)	17:45			18:45	20:49	21:47			22:10
29	08:20		10:45 (C13)				06:57	05:37	04:40			04:29
	16:39	35	11:20 (C13)				19:47	20:51	21:48			22:10
30	08:18		10:47 (C13)				06:54	05:35	04:38			04:29
	16:41	33	11:20 (C13)				19:49	20:53	21:50			22:09
31	08:17		10:48 (C13)				06:51		04:37			
	16:43	31	11:19 (C13)				19:51		21:51			
Potential sun hours	235			266			366	426	508			529
Total, worst case	1288			84					348			
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			10					125			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July	August	September	October	November	December
1	04:30	05:16	05:58 (C1)	06:17	07:17	07:23
	22:09	21:28	21	06:19 (C1)	20:14	18:54
2	04:31	05:18	05:58 (C1)	06:19	07:19	07:25
	22:09	21:26	22	06:20 (C1)	20:11	18:51
3	04:32	05:19	05:58 (C1)	06:21	07:21	07:27
	22:08	21:24	22	06:20 (C1)	20:09	18:48
4	04:33	05:21	05:58 (C1)	06:23	07:23	07:29
	22:07	21:22	22	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	05:58 (C1)	06:27	07:27	07:33
	22:06	21:17	20	06:18 (C1)	20:01	18:40
7	04:36	05:27	06:00 (C1)	06:29	07:30	07:36
	22:05	21:15	18	06:18 (C1)	19:58	18:38
8	04:37	05:29	06:02 (C1)	06:31	07:32	07:38
	22:04	21:13	15	06:17 (C1)	19:55	18:35
9	04:38	05:31	06:04 (C1)	06:33	07:34	07:40
	22:03	21:11	12	06:16 (C1)	19:53	18:32
10	04:39	05:33	06:06 (C1)	06:35	07:36	07:42
	22:02	21:08	8	06:14 (C1)	19:50	18:30
11	04:41	05:35	06:07 (C1)	06:37	07:38	07:44
	22:01	21:06	4	06:11 (C1)	19:47	18:27
12	04:42	05:37		06:39	07:40	07:46
	22:00	21:04		19:45	18:25	16:13
13	04:43	05:39		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
	21:58	20:59		19:39	18:19	16:09
15	04:46	05:43		06:45	07:46	07:53
	21:57	20:57		19:37	18:17	16:08
16	04:48	05:45		06:47	07:48	07:55
	21:55	20:54		19:34	18:14	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	16:02
19	04:52	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		19:20	18:02	15:58
22	04:57	05:57		06:59	08:01	08:07
	21:46	6 06:12 (C1)	20:40	19:18	17:59	15:56
23	04:59	06:03 (C1)	05:59	07:01	08:03	08:09
	21:45	11 06:14 (C1)	20:37	19:15	17:57	15:55
24	05:01	06:02 (C1)	06:01	07:03	08:05	08:11
	21:43	14 06:16 (C1)	20:35	19:12	17:55	15:53
25	05:03	06:02 (C1)	06:03	07:05	07:07	08:13
	21:41	15 06:17 (C1)	20:32	19:10	16:52	15:52
26	05:04	06:00 (C1)	06:05	07:07	07:10	08:15
	21:39	17 06:17 (C1)	20:30	19:07	16:50	15:51
27	05:06	06:00 (C1)	06:07	07:09	07:12	08:17
	21:38	18 06:18 (C1)	20:27	19:04	16:47	15:49
28	05:08	05:59 (C1)	06:09	07:11	07:14	08:19
	21:36	19 06:18 (C1)	20:24	19:02	16:45	15:48
29	05:10	05:58 (C1)	06:11	07:13	07:16	08:21
	21:34	21 06:19 (C1)	20:22	18:59	16:43	15:47
30	05:12	05:58 (C1)	06:13	07:15	07:18	08:22
	21:32	22 06:20 (C1)	20:19	18:56	16:40	15:46
31	05:14	05:58 (C1)	06:15		07:20	
	21:30	22 06:20 (C1)	20:17		16:38	
Potential sun hours	529	469	385	324	247	216
Total, worst case	165	185			907	1265
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	51	58			43	51

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January				February				March				April				May				June			
1	08:51		10:26 (C4)	08:15		09:00 (C2)	07:11		06:49							05:32		07:25 (C17)	04:36			07:34 (C17)		
	15:48	53	13:12 (C1)	16:45	29	09:29 (C2)	17:47		19:53							20:55	83	08:48 (C17)	21:53	59		08:33 (C17)		
2	08:50		10:27 (C4)	08:13		09:00 (C2)	07:08		06:46							05:30		07:25 (C17)	04:34			07:35 (C17)		
	15:49	51	13:12 (C1)	16:47	30	09:30 (C2)	17:50		19:55							20:57	83	08:48 (C17)	21:54	57		08:32 (C17)		
3	08:50		10:28 (C4)	08:11		09:00 (C2)	07:06		06:43							05:28		07:25 (C17)	04:33			07:35 (C17)		
	15:50	49	13:12 (C1)	16:49	31	09:31 (C2)	17:52		19:57							20:59	82	08:47 (C17)	21:55	56		08:31 (C17)		
4	08:50		10:28 (C4)	08:09		09:00 (C2)	07:03		06:41		08:04 (C17)					05:25		07:25 (C17)	04:32			07:36 (C17)		
	15:52	48	13:12 (C1)	16:52	31	09:31 (C2)	17:54		19:59	19	08:23 (C17)		07:59 (C17)			21:02	82	08:47 (C17)	21:57	55		08:31 (C17)		
5	08:49		10:30 (C4)	08:07		09:00 (C2)	07:00		06:38							05:23		07:25 (C17)	04:31			07:37 (C17)		
	15:53	46	13:13 (C1)	16:54	32	09:32 (C2)	17:56		20:01	28	08:27 (C17)		07:55 (C17)			21:04	82	08:47 (C17)	21:58	54		08:31 (C17)		
6	08:49		10:32 (C4)	08:05		09:00 (C2)	06:58		06:35							05:21		07:25 (C17)	04:31			07:37 (C17)		
	15:55	43	13:13 (C1)	16:56	31	09:31 (C2)	17:58		20:03	36	08:31 (C17)		07:52 (C17)			21:06	82	08:47 (C17)	21:59	53		08:30 (C17)		
7	08:48		10:33 (C4)	08:03		09:00 (C2)	06:55		06:33							05:19		07:25 (C17)	04:30			07:38 (C17)		
	15:56	39	13:13 (C1)	16:58	31	09:31 (C2)	18:00		20:05	42	08:34 (C17)		07:44 (C17)			21:08	81	08:46 (C17)	22:00	51		08:29 (C17)		
8	08:48		12:41 (C1)	08:00		09:01 (C2)	06:53		06:30							05:17		07:25 (C17)	04:29			07:39 (C17)		
	15:58	32	13:13 (C1)	17:01	31	09:32 (C2)	18:02		20:07	47	08:35 (C17)		07:47 (C17)			21:10	81	08:46 (C17)	22:01	51		08:30 (C17)		
9	08:47		12:42 (C1)	07:58		09:00 (C2)	06:50		06:27							05:14		07:25 (C17)	04:28			07:39 (C17)		
	15:59	31	13:13 (C1)	17:03	31	09:31 (C2)	18:05		20:10	51	08:38 (C17)		07:44 (C17)			21:12	80	08:45 (C17)	22:02	50		08:29 (C17)		
10	08:46		12:43 (C1)	07:56		09:01 (C2)	06:47		06:25							05:12		07:25 (C17)	04:28			07:40 (C17)		
	16:01	30	13:13 (C1)	17:05	30	09:31 (C2)	18:07		20:12	55	08:39 (C17)		07:43 (C17)			21:14	80	08:45 (C17)	22:03	49		08:29 (C17)		
11	08:45		12:44 (C1)	07:54		09:02 (C2)	06:45		06:22							05:10		07:25 (C17)	04:27			07:40 (C17)		
	16:03	29	13:13 (C1)	17:07	29	09:31 (C2)	18:09		20:14	58	08:41 (C17)		07:43 (C17)			21:16	79	08:44 (C17)	22:04	48		08:28 (C17)		
12	08:44		12:46 (C1)	07:52		09:02 (C2)	06:42		06:20							05:08		07:25 (C17)	04:27			07:41 (C17)		
	16:04	27	13:13 (C1)	17:10	27	09:29 (C2)	18:11		20:16	62	08:42 (C17)		07:44 (C17)			21:18	79	08:44 (C17)	22:05	47		08:28 (C17)		
13	08:43		12:46 (C1)	07:49		09:04 (C2)	06:39		06:17							05:06		07:25 (C17)	04:26			07:42 (C17)		
	16:06	26	13:12 (C1)	17:12	25	09:29 (C2)	18:13		20:18	64	08:43 (C17)		07:37 (C17)			21:20	78	08:43 (C17)	22:06	46		08:28 (C17)		
14	08:42		12:48 (C1)	07:47		09:04 (C2)	06:37		06:14							05:04		07:25 (C17)	04:26			07:41 (C17)		
	16:08	24	13:12 (C1)	17:14	23	09:27 (C2)	18:15		20:20	67	08:44 (C17)		07:36 (C17)			21:22	77	08:42 (C17)	22:07	46		08:27 (C17)		
15	08:41		12:50 (C1)	07:45		09:06 (C2)	06:34		06:12							05:02		07:26 (C17)	04:25			07:42 (C17)		
	16:10	21	13:11 (C1)	17:16	20	09:26 (C2)	18:17		20:22	69	08:45 (C17)		07:35 (C17)			21:24	76	08:42 (C17)	22:07	45		08:27 (C17)		
16	08:40		12:51 (C1)	07:43		09:08 (C2)	06:31		06:09							05:00		07:26 (C17)	04:25			07:42 (C17)		
	16:12	19	13:10 (C1)	17:19	15	09:23 (C2)	18:19		20:24	70	08:45 (C17)		07:34 (C17)			21:25	75	08:41 (C17)	22:08	45		08:27 (C17)		
17	08:39		12:53 (C1)	07:40		09:12 (C2)	06:29		06:07							04:59		07:26 (C17)	04:25			07:43 (C17)		
	16:13	16	13:09 (C1)	17:21	8	09:20 (C2)	18:22		20:26	72	08:46 (C17)		07:32 (C17)			21:27	75	08:41 (C17)	22:08	45		08:28 (C17)		
18	08:37		12:56 (C1)	07:38			06:26		06:04							04:57		07:27 (C17)	04:25			07:43 (C17)		
	16:15	10	13:06 (C1)	17:23			18:24		20:28	74	08:46 (C17)		07:32 (C17)			21:29	74	08:41 (C17)	22:09	45		08:28 (C17)		
19	08:36			07:35			06:23		06:02							04:55		07:27 (C17)	04:25			07:44 (C17)		
	16:17			17:25			18:26		20:30	75	08:47 (C17)		07:30 (C17)			21:31	73	08:40 (C17)	22:09	44		08:28 (C17)		
20	08:35			07:33			06:21		05:59							04:53		07:28 (C17)	04:25			07:44 (C17)		
	16:19			17:28			18:28		20:32	77	08:47 (C17)		07:30 (C17)			21:33	72	08:40 (C17)	22:10	44		08:28 (C17)		
21	08:33			07:31			06:18		05:56							04:51		07:28 (C17)	04:25			07:44 (C17)		
	16:21			17:30			18:30		20:35	78	08:48 (C17)		07:28 (C17)			21:35	71	08:39 (C17)	22:10	44		08:28 (C17)		
22	08:32			07:28			06:15		05:54							04:50		07:29 (C17)	04:25			07:45 (C17)		
	16:23			17:32			18:32		20:37	79	08:47 (C17)		07:28 (C17)			21:36	69	08:38 (C17)	22:10	44		08:29 (C17)		
23	08:30			07:26			06:13		05:52							04:48		07:28 (C17)	04:25			07:45 (C17)		
	16:26			17:34			18:34		20:39	80	08:48 (C17)		07:28 (C17)			21:38	69	08:37 (C17)	22:10	44		08:29 (C17)		
24	08:29		09:09 (C2)	07:23			06:10		05:49							04:46		07:29 (C17)	04:26			07:44 (C17)		
	16:28	10	09:19 (C2)	17:36			18:36		20:41	80	08:48 (C17)		07:27 (C17)			21:40	68	08:37 (C17)	22:10	45		08:29 (C17)		
25	08:27		09:06 (C2)	07:21			06:07		05:47							04:45		07:30 (C17)	04:26			07:45 (C17)		
	16:30	15	09:21 (C2)	17:39			18:38		20:43	81	08:48 (C17)		07:26 (C17)			21:42	67	08:37 (C17)	22:10	45		08:30 (C17)		
26	08:25		09:05 (C2)	07:18			06:05		05:44							04:43		07:30 (C17)	04:27			07:45 (C17)		
	16:32	18	09:23 (C2)	17:41			18:40		20:45	82	08:48 (C17)		07:26 (C17)			21:43	65	08:35 (C17)	22:10	44		08:29 (C17)		
27	08:24		09:04 (C2)	07:16			06:02		05:42							04:42		07:31 (C17)	04:27			07:45 (C17)		
	16:34	21	09:25 (C2)	17:43			18:42		20:47	82	08:48 (C17)		07:26 (C17)			21:45	64	08:35 (C17)	22:10	45		08:30 (C17)		
28	08:22		09:03 (C2)	07:13			05:59		05:39							04:41		07:32 (C17)	04:28			07:45 (C17)		
	16:36	23	09:26 (C2)	17:45			18:45		20:49	82	08:48 (C17)		07:25 (C17)			21:47	63	08:35 (C17)	22:10	45		08:30 (C17)		
29	08:20		09:02 (C2)				06:57		05:37							04:39		07:32 (C17)	04:28			07:45 (C17)		
	16:38	25	09:27 (C2)				19:47		20:51	83	08:48 (C17)		07:25 (C17)			21:48	62	08:34 (C17)	22:10	46		08:31 (C17)		
30	08:18		09:02 (C2)				06:54		05:35							04:38		07:33 (C17)	04:29			07:44 (C17)		
	16:41	26	09:28 (C2)				19:49		20:53	83	08:48 (C17)		07:25 (C17)			21:50	61	08:34 (C17)	22:09	47		08:31 (C17)		
31	08:17		09:01 (C2)				06:51									04:37		07:34 (C17)						
	16:43	28	09:29 (C2)				19:51									21:51	59	08:33 (C17)						
Potential sun hours	235			266			366		426							508			529					
Total, worst case		760		454					1776							2292	</							

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July			August			September			October			November			December		
1	04:30		07:44 (C17)	05:15		07:35 (C17)	06:17		07:42 (C17)	07:17		07:22		08:31 (C2)	08:24		12:27 (C1)	
2	22:09	48	08:32 (C17)	21:28	79	08:54 (C17)	20:14	58	08:40 (C17)	18:53		16:36	29	09:00 (C2)	15:45	28	12:55 (C1)	
	04:31		07:44 (C17)	05:17		07:35 (C17)	06:19		07:43 (C17)	07:19		07:25		08:30 (C2)	08:26		12:26 (C1)	
3	22:09	49	08:33 (C17)	21:26	80	08:55 (C17)	20:11	55	08:38 (C17)	18:51		16:34	30	09:00 (C2)	15:44	30	12:56 (C1)	
	04:31		07:44 (C17)	05:19		07:35 (C17)	06:21		07:45 (C17)	07:21		07:27		08:30 (C2)	08:28		12:25 (C1)	
4	22:08	50	08:34 (C17)	21:24	80	08:55 (C17)	20:09	51	08:36 (C17)	18:48		16:31	31	09:01 (C2)	15:43	31	12:56 (C1)	
	04:32		07:44 (C17)	05:21		07:34 (C17)	06:23		07:45 (C17)	07:23		07:29		08:30 (C2)	08:29		12:26 (C1)	
5	22:07	51	08:35 (C17)	21:22	81	08:55 (C17)	20:06	47	08:32 (C17)	18:45		16:29	31	09:01 (C2)	15:42	31	12:57 (C1)	
	04:33		07:44 (C17)	05:23		07:34 (C17)	06:25		07:48 (C17)	07:25		07:31		08:29 (C2)	08:31		10:19 (C4)	
6	22:07	51	08:35 (C17)	21:19	81	08:55 (C17)	20:03	42	08:30 (C17)	18:43		16:27	32	09:01 (C2)	15:41	38	12:58 (C1)	
	04:34		07:44 (C17)	05:25		07:34 (C17)	06:27		07:50 (C17)	07:27		07:33		08:30 (C2)	08:32		10:18 (C4)	
7	22:06	52	08:36 (C17)	21:17	82	08:56 (C17)	20:01	37	08:27 (C17)	18:40		16:25	31	09:01 (C2)	15:41	43	12:59 (C1)	
	04:35		07:44 (C17)	05:27		07:34 (C17)	06:29		07:53 (C17)	07:29		07:36		08:30 (C2)	08:34		10:17 (C4)	
8	22:05	53	08:37 (C17)	21:15	82	08:56 (C17)	19:58	30	08:23 (C17)	18:38		16:23	31	09:01 (C2)	15:40	44	12:59 (C1)	
	04:37		07:43 (C17)	05:29		07:34 (C17)	06:31		07:58 (C17)	07:31		07:38		08:31 (C2)	08:35		10:17 (C4)	
9	22:04	55	08:38 (C17)	21:13	82	08:56 (C17)	19:55	19	08:17 (C17)	18:35		16:21	30	09:01 (C2)	15:39	47	13:00 (C1)	
	04:38		07:43 (C17)	05:31		07:34 (C17)	06:33			07:34		07:40		08:31 (C2)	08:37		10:16 (C4)	
10	22:03	55	08:38 (C17)	21:11	83	08:57 (C17)	19:53			18:32		16:19	30	09:01 (C2)	15:39	49	13:00 (C1)	
	04:39		07:42 (C17)	05:33		07:33 (C17)	06:35			07:36		07:42		08:31 (C2)	08:38		10:16 (C4)	
11	22:02	57	08:39 (C17)	21:08	83	08:56 (C17)	19:50			18:30		16:17	29	09:00 (C2)	15:39	50	13:01 (C1)	
	04:40		07:42 (C17)	05:35		07:33 (C17)	06:37			07:38		07:44		08:32 (C2)	08:39		10:16 (C4)	
12	22:01	58	08:40 (C17)	21:06	83	08:56 (C17)	19:47			18:27		16:15	28	09:00 (C2)	15:38	52	13:02 (C1)	
	04:42		07:41 (C17)	05:37		07:33 (C17)	06:39			07:40		07:46		08:32 (C2)	08:40		10:17 (C4)	
13	22:00	59	08:40 (C17)	21:04	83	08:56 (C17)	19:45			18:24		16:13	27	08:59 (C2)	15:38	53	13:03 (C1)	
	04:43		07:42 (C17)	05:39		07:33 (C17)	06:41			07:42		07:49		08:34 (C2)	08:42		10:17 (C4)	
14	21:59	60	08:42 (C17)	21:01	83	08:56 (C17)	19:42			18:22		16:11	25	08:59 (C2)	15:38	53	13:03 (C1)	
	04:45		07:41 (C17)	05:41		07:33 (C17)	06:43			07:44		07:51		08:35 (C2)	08:43		10:17 (C4)	
15	21:58	61	08:42 (C17)	20:59	83	08:56 (C17)	19:39			18:19		16:09	23	08:58 (C2)	15:38	54	13:04 (C1)	
	04:46		07:40 (C17)	05:43		07:34 (C17)	06:45			07:46		07:53		08:36 (C2)	08:44		10:17 (C4)	
16	21:57	63	08:43 (C17)	20:57	82	08:56 (C17)	19:37			18:17		16:07	21	08:57 (C2)	15:38	55	13:04 (C1)	
	04:47		07:41 (C17)	05:45		07:33 (C17)	06:47			07:48		07:55		08:38 (C2)	08:45		10:17 (C4)	
17	21:55	63	08:44 (C17)	20:54	82	08:55 (C17)	19:34			18:14		16:06	18	08:56 (C2)	15:38	57	13:05 (C1)	
	04:49		07:40 (C17)	05:47		07:33 (C17)	06:49			07:50		07:57		08:39 (C2)	08:46		10:18 (C4)	
18	21:54	65	08:45 (C17)	20:52	81	08:54 (C17)	19:31			18:12		16:04	15	08:54 (C2)	15:38	55	13:05 (C1)	
	04:51		07:39 (C17)	05:49		07:33 (C17)	06:51			07:52		07:59		08:43 (C2)	08:46		10:18 (C4)	
19	21:52	66	08:45 (C17)	20:49	81	08:54 (C17)	19:28			18:09		16:02	10	08:53 (C2)	15:38	56	13:06 (C1)	
	04:52		07:39 (C17)	05:51		07:34 (C17)	06:53			07:54		08:01			08:47		10:19 (C4)	
20	21:51	67	08:46 (C17)	20:47	80	08:54 (C17)	19:26			18:07		16:01			15:38	57	13:07 (C1)	
	04:54		07:38 (C17)	05:53		07:34 (C17)	06:55			07:57		08:03			08:48		10:18 (C4)	
21	21:49	69	08:47 (C17)	20:45	79	08:53 (C17)	19:23			18:04		15:59			15:38	58	13:07 (C1)	
	04:56		07:39 (C17)	05:55		07:34 (C17)	06:57			07:59		08:05			08:48		10:19 (C4)	
22	21:48	69	08:48 (C17)	20:42	79	08:53 (C17)	19:20			18:02		15:57			15:39	58	13:08 (C1)	
	04:57		07:39 (C17)	05:57		07:35 (C17)	06:59			08:01		08:07			08:49		10:19 (C4)	
23	21:46	70	08:49 (C17)	20:40	77	08:52 (C17)	19:18			17:59		15:56			15:39	57	13:07 (C1)	
	04:59		07:38 (C17)	05:59		07:35 (C17)	07:01			08:03		08:09			08:50		10:20 (C4)	
24	21:45	71	08:49 (C17)	20:37	76	08:51 (C17)	19:15			17:57		15:54			15:40	58	13:09 (C1)	
	05:01		07:38 (C17)	06:01		07:36 (C17)	07:03			08:05		08:11		12:33 (C1)	08:50		10:21 (C4)	
25	21:43	72	08:50 (C17)	20:35	75	08:51 (C17)	19:12			17:54		15:53	10	12:43 (C1)	15:40	57	13:09 (C1)	
	05:02		07:37 (C17)	06:03		07:35 (C17)	07:05			07:07	08:40 (C2)	08:13		12:31 (C1)	08:50		10:21 (C4)	
26	21:41	73	08:50 (C17)	20:32	74	08:49 (C17)	19:10			16:52	10	08:50 (C2)	15:52	15	12:46 (C1)	15:41	57	13:09 (C1)
	05:04		07:37 (C17)	06:05		07:36 (C17)	07:07			07:09		08:38 (C2)	08:15		12:29 (C1)	08:51		10:21 (C4)
27	21:39	74	08:51 (C17)	20:29	72	08:48 (C17)	19:07			16:50	16	08:54 (C2)	15:50	19	12:48 (C1)	15:42	56	13:09 (C1)
	05:06		07:37 (C17)	06:07		07:37 (C17)	07:09			07:12		08:35 (C2)	08:17		12:29 (C1)	08:51		10:22 (C4)
28	21:38	75	08:52 (C17)	20:27	70	08:47 (C17)	19:04			16:47	21	08:56 (C2)	15:49	21	12:50 (C1)	15:42	56	13:10 (C1)
	05:08		07:36 (C17)	06:09		07:37 (C17)	07:11			07:14		08:34 (C2)	08:19		12:28 (C1)	08:51		10:23 (C4)
29	21:36	76	08:52 (C17)	20:24	69	08:46 (C17)	19:01			16:45	23	08:57 (C2)	15:48	24	12:52 (C1)	15:43	55	13:10 (C1)
	05:10		07:36 (C17)	06:11		07:38 (C17)	07:13			07:16		08:33 (C2)	08:21		12:27 (C1)	08:51		10:23 (C4)
30	21:34	77	08:53 (C17)	20:22	66	08:44 (C17)	18:59			16:43	25	08:58 (C2)	15:47	26	12:53 (C1)	15:44	56	13:11 (C1)
	05:12		07:36 (C17)	06:13		07:39 (C17)	07:15			07:18		08:32 (C2)	08:22		12:27 (C1)	08:51		10:24 (C4)
31	21:32	78	08:54 (C17)	20:19	64	08:43 (C17)	18:56			16:40	27	08:59 (C2)	15:46	27	12:54 (C1)	15:45	55	13:11 (C1)
	05:14		07:35 (C17)	06:15		07:40 (C17)				07:20		08:31 (C2)				08:51		10:25 (C4)
	21:30	78	08:53 (C17)	20:17	61	08:41 (C17)				16:38	28	08:59 (C2)				15:46	54	13:12 (C1)
Potential sun hours	529			469			385			324			247			216		
Total, worst case		1965			2413			339			150			613				1560
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			0.60				0.63
Total reduction		0.31			0.31			0.27			0.15			0.05				0.04
Total, real		611			759			91			22			29				67

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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	04:38 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	07:05 17:51	05:51 18:51	05:31 21:51	04:37 21:51	04:30 21:51	05:14 21:30	06:15 20:17	07:20 16:38	07:20 15:42	08:51 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
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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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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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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
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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
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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	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 20:54	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												
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
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Operational time

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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 30	09:54 (C13) 10:24 (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 10:12 (C13)
2	08:51 15:49 30	09:55 (C13) 10:25 (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 10:12 (C13)
3	08:50 15:51 30	09:55 (C13) 10:25 (C13) 16:50	08:11 07:06 17:52	08:09 06:43 19:57	05:28 21:00 21:55	04:34 21:55 22:08	04:32 22:08 21:24	05:19 21:24 20:09	06:21 21:24 18:48	07:21 21:24 16:32	07:27 21:24 15:43	08:28 21:24 10:13 (C13)
4	08:50 15:52 30	09:55 (C13) 10:25 (C13) 16:52	08:09 07:03 17:54	08:09 06:41 19:59	05:26 21:02 21:57	04:33 21:57 22:07	04:33 22:07 21:22	05:21 21:22 20:06	06:23 21:22 18:46	07:23 21:22 16:29	07:29 21:22 15:42	08:29 21:22 10:12 (C13)
5	08:49 15:53 31	09:56 (C13) 10:27 (C13) 16:54	08:07 07:01 17:56	08:07 06:38 20:01	05:23 21:04 21:58	04:32 21:58 22:07	04:34 22:07 21:20	05:23 21:20 20:03	06:25 21:20 18:43	07:25 21:20 16:27	07:31 21:20 15:42	08:31 21:20 10:13 (C13)
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7	08:48 15:56 32	09:56 (C13) 10:28 (C13) 16:59	08:03 07:51 18:01	08:03 06:33 20:05	05:19 21:08 22:00	04:30 22:00 22:05	04:36 22:05 21:15	05:27 21:15 19:58	06:29 21:15 18:38	07:30 21:15 16:23	07:36 21:15 15:40	08:34 21:15 10:13 (C13)
8	08:48 15:58 32	09:56 (C13) 10:28 (C13) 17:01	08:01 07:43 18:03	08:01 06:30 20:08	05:17 21:10 22:01	04:29 22:01 22:04	04:37 22:04 21:13	05:29 21:13 19:55	06:31 21:13 18:35	07:32 21:13 16:21	07:38 21:13 15:40	08:35 21:13 10:13 (C13)
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16	08:40 16:12 33	09:59 (C13) 10:32 (C13) 17:19	07:43 07:35 18:20	07:43 06:09 20:24	05:01 21:26 22:08	04:25 22:08 21:55	04:48 21:55 20:54	05:45 20:54 19:34	06:47 20:54 18:14	07:48 20:54 16:06	26 09:37 (C13) 07:55 20:54 15:38	08:45 20:54 10:15 (C13)
17	08:39 16:14 34	09:59 (C13) 10:33 (C13) 17:21	07:40 07:31 18:22	07:40 06:07 20:26	04:59 21:27 22:09	04:25 22:09 21:54	04:49 21:54 20:52	05:47 20:52 19:31	06:49 20:52 18:12	07:50 20:52 16:04	28 09:36 (C13) 07:57 20:52 15:38	08:46 20:52 10:16 (C13)
18	08:38 16:16 33	09:59 (C13) 10:32 (C13) 17:23	07:38 07:28 18:24	07:38 06:04 20:28	04:57 21:29 22:09	04:25 22:09 21:52	05:49 21:52 20:50	05:51 20:50 19:29	06:51 20:50 18:09	07:52 20:50 16:02	29 09:35 (C13) 07:59 20:50 15:38	08:46 20:50 10:16 (C13)
19	08:36 16:18 32	10:00 (C13) 10:32 (C13) 17:26	07:36 07:26 18:26	07:36 06:02 20:30	04:55 21:31 22:09	04:25 22:09 21:51	05:51 21:51 20:47	05:51 20:47 19:26	06:53 20:47 18:07	07:55 20:47 16:01	30 09:34 (C13) 07:55 20:47 15:38	08:47 20:47 10:17 (C13)
20	08:35 16:20 32	10:01 (C13) 10:33 (C13) 17:28	07:33 07:28 18:28	07:33 05:59 20:33	04:53 21:33 22:10	04:25 22:10 21:49	05:53 21:49 20:45	05:53 20:45 19:23	06:55 20:45 18:04	07:57 20:45 15:59	31 09:33 (C13) 07:57 20:45 15:39	08:48 20:45 10:17 (C13)
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22	08:32 16:24 31	10:01 (C13) 10:32 (C13) 17:32	07:28 07:20 18:32	07:28 05:54 20:37	04:50 21:37 22:10	04:25 22:10 21:46	05:57 21:46 20:40	05:57 20:40 19:18	06:59 20:40 17:59	08:01 20:40 15:56	32 09:31 (C13) 08:01 20:40 15:39	08:50 20:40 10:18 (C13)
23	08:30 16:26 30	10:02 (C13) 10:32 (C13) 17:34	07:26 07:18 18:34	07:26 05:52 20:39	04:48 21:38 22:10	04:26 22:10 21:45	05:59 21:45 20:37	05:59 20:37 19:15	07:01 20:37 17:57	08:03 20:37 15:55	32 09:30 (C13) 08:03 20:37 15:40	08:50 20:37 10:19 (C13)
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26	08:26 16:32 26	10:05 (C13) 10:31 (C13) 17:41	07:18 07:10 18:41	07:18 05:44 20:45	04:44 21:43 22:10	04:27 22:10 21:39	05:04 21:39 20:30	06:05 20:30 19:07	07:07 20:30 16:50	08:09 20:30 15:51	33 09:27 (C13) 08:09 20:30 15:42	08:51 20:30 10:20 (C13)
27	08:24 16:34 25	10:06 (C13) 10:31 (C13) 17:43	07:16 07:08 18:43	07:16 05:42 20:47	04:42 21:45 22:10	04:27 22:10 21:38	05:06 21:38 20:27	06:07 20:27 19:04	07:09 20:27 16:47	08:11 20:27 15:49	33 09:26 (C13) 08:11 20:27 15:44	08:51 20:27 10:20 (C13)
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31	08:17 16:43 9	10:15 (C13) 10:24 (C13)	07:09 06:51 19:51	07:09 06:37 21:51	04:37 21:51	05:14 21:51	06:15 20:17	07:17 20:17	08:19 20:17	09:21 20:17	33 09:22 (C13) 08:19 20:17 15:47	08:51 20:17 10:23 (C13)
Potential sun hours	235		266	366	426	508	529	469	385	324	247	216
Total, worst case	906											893
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	72											38

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	11	07:50 (C14) 08:01 (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	6	07:52 (C14) 07:58 (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			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	2	07:18 (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	9	07:22 (C14) 20:12	05:11 21:14	04:27 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 16:04	07:52 17:08	06:42 18:09	14	07:10 (C14) 20:14	05:09 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:48		07:38 18:27			07:46 16:15	08:40 15:39
13	08:43 16:05	07:50 17:10	06:40 18:11	18	07:08 (C14) 20:16	05:07 21:18	04:27 22:05	04:44 22:00	05:39 21:04	06:41 19:45		07:42 18:25			07:49 16:13	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	21	07:05 (C14) 20:18	05:15 21:20	04:26 22:06	04:45 21:59	05:41 21:02	06:43 19:42		07:44 18:22			07:51 16:11	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	24	07:02 (C14) 20:20	05:05 21:22	04:26 22:07	04:46 21:58	05:43 20:59	06:45 19:39		07:46 18:20			07:53 16:10	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	25	07:02 (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	08:39 16:14	07:40 17:21	06:29 18:22	26	07:01 (C14) 20:24	04:59 21:26	04:25 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	08:38 16:16	07:38 17:23	06:26 18:24	25	07:01 (C14) 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	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	26	07:00 (C14) 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	4	07:52 (C14) 18:09			07:59 16:03	08:46 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	25	07:01 (C14) 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	13	07:55 (C14) 18:07			08:01 16:01	08:47 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30	24	07:01 (C14) 20:32	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	17	07:57 (C14) 18:04			08:03 15:59	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	22	07:02 (C14) 20:34	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	20	07:59 (C14) 18:02			08:05 15:58	08:49 15:39
23	08:30 16:26	07:26 17:35	06:13 18:34	21	07:03 (C14) 20:36	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	22	08:00 (C14) 18:00			08:06 15:56	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	18	07:04 (C14) 20:38	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	24	08:01 (C14) 17:57			08:07 (C14) 17:55	08:50 15:40
25	08:27 16:30	07:21 17:39	06:08 18:39	14	07:08 (C14) 20:40	04:47 21:42	04:27 22:10	05:01 21:43	06:01 20:35	07:03 19:12	25	08:02 (C14) 17:55			08:08 (C14) 17:55	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	7	07:15 (C14) 20:42	04:45 21:43	04:27 22:10	05:03 21:39	06:03 20:30	07:05 19:07	26	08:03 (C14) 17:50			08:09 (C14) 17:50	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43		05:45 20:47	04:42 21:45	04:28 22:10	05:05 21:38	06:05 20:27	07:07 19:04	26	08:04 (C14) 17:48			08:10 (C14) 17:48	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	25	08:05 (C14) 17:46			08:11 (C14) 17:46	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	24	08:06 (C14) 17:44			08:12 (C14) 17:44	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	08:07 (C14) 17:42			08:13 (C14) 17:42	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			08:14 (C14) 17:40	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324			247	216
Total, worst case				321						274		51				
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				81						72		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)
	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:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

Shadow receptor: Ziemeļnieki - 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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	05:46 (C12) 20:44 (C15)	04:30 22:09	20:09 (C16) 21:28	05:16 20:53 (C15)	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	05:46 (C12) 20:44 (C15)	04:31 22:08	20:09 (C16) 21:26	05:18 20:54 (C12)	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	05:47 (C12) 20:43 (C15)	04:32 22:08	20:10 (C16) 21:23	05:19 20:43 (C16)	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	05:48 (C12) 20:42 (C15)	04:33 22:07	20:09 (C16) 21:21	05:21 20:44 (C16)	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	04:32 21:58	05:49 (C12) 20:42 (C15)	04:34 22:06	20:08 (C16) 21:19	05:23 20:45 (C15)	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	05:50 (C12) 20:41 (C15)	04:35 22:06	20:07 (C16) 21:17	05:25 20:47 (C15)	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	05:49 (C12) 20:22 (C16)	04:30 22:00	04:36 22:05	20:06 (C16) 21:15	05:27 20:48 (C15)	06:29 20:01	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	05:47 (C12) 20:26 (C16)	04:29 22:01	04:37 22:04	20:05 (C12) 21:13	05:29 20:49 (C15)	06:31 20:01	07:31 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	05:45 (C12) 20:38 (C15)	04:29 22:02	04:38 22:03	20:05 (C12) 21:10	05:31 20:50 (C15)	06:33 20:01	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	05:44 (C12) 20:40 (C15)	04:28 22:03	04:39 22:02	20:05 (C16) 21:08	05:34 (C12) 20:51 (C15)	06:35 20:01	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	05:10 21:15	05:43 (C12) 20:41 (C15)	04:27 22:04	04:41 22:01	20:05 (C16) 21:08	05:33 (C12) 20:52 (C15)	06:37 20:01	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 21:17	05:42 (C12) 20:43 (C15)	04:27 22:05	04:42 22:00	20:06 (C16) 21:04	05:34 (C12) 20:53 (C15)	06:39 20:01	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	05:06 21:19	05:41 (C12) 20:44 (C15)	04:26 22:06	04:43 21:59	20:06 (C16) 20:53 (C15)	05:39 (C12) 21:01	06:41 20:01	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	05:40 (C12) 20:46 (C15)	04:26 22:06	04:45 21:58	20:07 (C16) 20:54 (C15)	05:42 (C12) 20:52 (C15)	06:43 20:01	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	05:41 (C12) 20:46 (C15)	04:26 22:07	04:46 21:56	20:06 (C16) 20:54 (C15)	05:43 (C12) 20:52 (C12)	06:45 20:01	07:46 18:17	07:53 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	05:40 (C12) 20:46 (C15)	04:25 22:08	04:48 21:55	20:07 (C16) 20:55 (C15)	05:44 (C12) 20:54 (C15)	06:47 20:01	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	05:41 (C12) 20:47 (C15)	04:25 22:08	04:49 21:54	20:07 (C16) 20:55 (C15)	05:47 (C12) 20:55 (C15)	06:49 20:01	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	05:40 (C12) 20:47 (C15)	04:25 22:09	04:51 21:52	20:07 (C16) 20:56 (C15)	05:49 (C12) 20:56 (C15)	06:51 20:01	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	05:40 (C12) 20:46 (C15)	04:25 22:09	04:52 21:51	20:08 (C16) 20:56 (C15)	05:51 (C12) 20:57 (C15)	06:53 20:01	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	05:41 (C12) 20:47 (C15)	04:25 22:09	04:54 21:49	20:08 (C16) 20:57 (C15)	05:51 (C12) 20:57 (C15)	06:55 20:01	07:56 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	05:40 (C12) 20:47 (C15)	04:25 22:10	04:56 21:48	20:09 (C16) 20:57 (C15)	05:51 (C12) 20:57 (C15)	06:57 20:01	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	05:41 (C12) 20:47 (C15)	04:26 22:10	04:57 21:46	20:09 (C16) 20:57 (C15)	05:51 (C12) 20:57 (C15)	06:59 20:01	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	05:41 (C12) 20:47 (C15)	04:26 22:10	04:59 21:44	20:09 (C16) 20:57 (C15)	05:50 (C12) 20:57 (C15)	07:01 20:01	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:47 21:40	05:41 (C12) 20:47 (C15)	04:26 22:10	05:01 21:43	20:08 (C16) 20:57 (C15)	05:51 (C12) 20:57 (C15)	07:03 20:01	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	05:42 (C12) 20:47 (C15)	04:26 22:10	05:03 21:41	20:09 (C16) 20:57 (C15)	05:50 (C12) 20:57 (C15)	07:05 20:01	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	05:42 (C12) 20:47 (C15)	04:27 22:10	05:04 21:39	20:09 (C16) 20:57 (C15)	05:51 (C12) 20:57 (C15)	07:07 20:01	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	05:42 (C12) 20:46 (C15)	04:27 22:10	05:06 21:37	20:10 (C16) 20:57 (C15)	05:51 (C12) 20:57 (C15)	07:09 20:01	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	05:43 (C12) 20:46 (C15)	04:28 22:10	05:08 21:35	20:09 (C16) 20:56 (C15)	05:51 (C12) 20:56 (C15)	07:11 20:01	07:14 16:45	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	05:44 (C12) 20:45 (C15)	04:29 22:09	05:10 21:33	20:09 (C16) 20:56 (C15)	05:51 (C12) 20:56 (C15)	07:13 20:01	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41	07:06 17:54	05:54 18:49	05:35 20:53	04:38 21:49	05:44 (C12) 20:45 (C15)	04:29 22:09	05:12 21:32	20:10 (C16) 20:56 (C15)	05:52 (C12) 20:56 (C15)	07:15 20:01	07:18 16:40	08:22 15:46	08:51 15:46
31	08:16 16:43	07:05 17:51	05:51 18:40	05:32 20:51	04:37 21:51	05:45 (C12) 20:45 (C15)	04:27 22:09	05:14 21:30	20:11 (C16) 20:55 (C15)	05:53 (C12) 20:55 (C15)	07:16 20:01	07:20 16:38	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					1592	1133	1907	240						
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					566	390	586	75						

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	January				February				March				April				May				June			
1	08:51		13:17 (C13)	08:15	07:11								06:49				05:32			06:25 (C1)	04:36			
	15:48	19	13:36 (C13)	16:45	17:47								19:53				20:55	39		07:04 (C1)	21:53			
2	08:50		13:18 (C13)	08:13	07:08								06:46				05:30			06:25 (C1)	04:35			
	15:49	19	13:37 (C13)	16:47	17:50								19:55				20:57	39		07:04 (C1)	21:54			
3	08:50		13:19 (C13)	08:11	07:06								06:43				05:28			06:24 (C1)	04:34			
	15:51	17	13:36 (C13)	16:50	17:52								19:57				21:00	40		07:04 (C1)	21:55			
4	08:50		13:19 (C13)	08:09	07:03								06:41				05:26			06:24 (C1)	04:33			
	15:52	16	13:35 (C13)	16:52	17:54								19:59				21:02	40		07:04 (C1)	21:57			
5	08:49		13:21 (C13)	08:07	07:00								06:38				05:23			06:24 (C1)	04:32			
	15:53	15	13:36 (C13)	16:54	17:56								20:01				21:04	40		07:04 (C1)	21:58			
6	08:49		13:22 (C13)	08:05	06:58								06:35				05:21			06:24 (C1)	04:31			
	15:55	13	13:35 (C13)	16:56	17:58								20:03				21:06	40		07:04 (C1)	21:59			
7	08:48		13:24 (C13)	08:03	06:55								06:33				05:19			06:25 (C1)	04:30			
	15:56	10	13:34 (C13)	16:59	18:00								20:05				21:08	38		07:03 (C1)	22:00			
8	08:48		13:27 (C13)	08:00	06:53								06:30				05:17			06:25 (C1)	04:29			
	15:58	5	13:32 (C13)	17:01	18:03								20:08				21:10	38		07:03 (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	37		07:02 (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	37		07:02 (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	36		07:01 (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	34		07:00 (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	34		07:00 (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	32		07:00 (C1)	22:07			
15	08:41			07:45	06:34								06:12				05:02			06:28 (C1)	04:26			
	16:10			17:17	18:17								20:22				21:24	31		06:59 (C1)	22:07			
16	08:40			07:43	06:32								06:09				05:01			06:29 (C1)	04:25			
	16:12			17:19	18:20	6	06:57 (C4)						06:09				21:25	28		06:57 (C1)	22:08			
17	08:39			07:40	06:29								06:07				04:59			06:30 (C1)	04:25			
	16:14			17:21	18:22	11	07:05 (C4)						20:26				21:27	27		06:57 (C1)	22:08			
18	08:37			07:38	06:26								06:04				04:57			06:31 (C1)	04:25			
	16:16			17:23	18:24	15	07:06 (C4)						20:28				21:29	24		06:55 (C1)	22:09			
19	08:36			07:35	06:23								06:02				06:45 (C1)			06:32 (C1)	04:25			
	16:18			17:25	18:26	18	07:07 (C4)						20:30		4	06:49 (C1)	21:31	22		06:54 (C1)	22:09			
20	08:35			07:33	06:21								06:47 (C4)				06:39 (C1)			06:34 (C1)	04:25			
	16:20			17:28	18:28	20	07:07 (C4)						20:33		15	06:54 (C1)	21:33	19		06:53 (C1)	22:10			
21	08:33			07:31	06:18								06:46 (C4)				06:36 (C1)			06:35 (C1)	04:25			
	16:22			17:30	18:30	21	07:07 (C4)						20:35		21	06:57 (C1)	21:35	16		06:51 (C1)	22:10			
22	08:32			07:28	06:15								06:47 (C4)				06:34 (C1)			06:38 (C1)	04:25			
	16:24			17:32	18:32	21	07:08 (C4)						20:37		25	06:59 (C1)	21:36	11		06:49 (C1)	22:10			
23	08:30			07:26	06:13								06:46 (C4)				06:32 (C1)			06:42 (C1)	04:26			
	16:26			17:34	18:34	21	07:07 (C4)						20:39		27	06:59 (C1)	21:38	2		06:44 (C1)	22:10			
24	08:29			07:23	06:10								06:46 (C4)				06:31 (C1)				04:26			
	16:28			17:37	18:36	20	07:06 (C4)						20:41		30	07:01 (C1)	21:40				22:10			
25	08:27			07:21	06:07								06:46 (C4)				06:30 (C1)			04:45	04:26			
	16:30			17:39	18:38	19	07:05 (C4)						20:43		32	07:02 (C1)	21:42				22:10			
26	08:26			07:18	06:05								06:47 (C4)				06:28 (C1)			04:44	04:27			
	16:32			17:41	18:40	17	07:04 (C4)						20:45		34	07:02 (C1)	21:43				22:10			
27	08:24			07:16	06:02								06:48 (C4)				06:27 (C1)			04:42	04:27			
	16:34			17:43	18:43	14	07:02 (C4)						20:47		36	07:03 (C1)	21:45				22:10			
28	08:22			07:13	05:59								06:49 (C4)				06:27 (C1)			04:41	04:28			
	16:36			17:45	18:45	10	06:59 (C4)						20:49		36	07:03 (C1)	21:47				22:10			
29	08:20				06:57								05:37				06:26 (C1)			04:39	04:28			
	16:39				19:47								20:51		38	07:04 (C1)	21:48				22:10			
30	08:18				06:54								05:35				06:25 (C1)			04:38	04:29			
	16:41				19:49								20:53		38	07:03 (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		114			213									336				704						
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		9			55									107				254						

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
 Vilandes 3-6
 LV-1010 Riga
 0037167242411
 Anna / anna@environment.lv
 Calculated:
 09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	06:36 (C1) 07:11 (C1)	06:17 20:14	07:17 18:54	07:23 16:36
2	04:31 22:09	05:17 21:26	06:36 (C1) 07:12 (C1)	06:19 20:11	07:19 18:51	07:25 16:34
3	04:32 22:08	05:19 21:24	06:35 (C1) 07:12 (C1)	06:21 20:09	07:21 18:48	07:27 16:31
4	04:33 22:07	05:21 21:22	06:35 (C1) 07:13 (C1)	06:23 20:06	07:23 18:46	07:29 16:29
5	04:34 22:07	05:23 21:19	06:34 (C1) 07:12 (C1)	06:25 20:03	07:25 18:43	07:31 16:27
6	04:35 22:06	05:25 21:17	06:34 (C1) 07:13 (C1)	06:27 20:01	07:27 18:40	07:33 16:25
7	04:36 22:05	05:27 21:15	06:34 (C1) 07:13 (C1)	06:29 19:58	07:29 18:38	07:36 16:23
8	04:37 22:04	05:29 21:13	06:34 (C1) 07:13 (C1)	06:31 19:55	07:32 18:35	07:38 16:21
9	04:38 22:03	05:31 21:11	06:34 (C1) 07:13 (C1)	06:33 19:53	07:34 18:32	07:40 16:19
10	04:39 22:02	05:33 21:08	06:33 (C1) 07:12 (C1)	06:35 19:50	07:36 18:30	07:42 16:17
11	04:41 22:01	05:35 21:06	06:33 (C1) 07:12 (C1)	06:37 19:47	07:38 18:27	07:44 16:15
12	04:42 22:00	05:37 21:04	06:33 (C1) 07:12 (C1)	06:39 19:45	07:40 18:25	07:46 16:13
13	04:43 21:59	05:39 21:01	06:34 (C1) 07:12 (C1)	06:41 19:42	07:42 18:22	07:49 16:11
14	04:45 21:58	05:41 20:59	06:34 (C1) 07:11 (C1)	06:43 19:39	07:44 18:19	07:51 16:09
15	04:46 21:57	05:43 20:57	06:34 (C1) 07:11 (C1)	06:45 19:37	07:46 18:17	07:53 16:07
16	04:48 21:55	05:45 20:54	06:35 (C1) 07:10 (C1)	06:47 19:34	07:49 (C4) 07:37 (C4)	16:07 15:58
17	04:49 21:54	05:47 20:52	06:35 (C1) 07:08 (C1)	06:49 19:31	07:50 (C4) 07:53 (C4)	16:06 15:58
18	04:51 21:52	05:49 20:50	06:35 (C1) 07:07 (C1)	06:51 19:29	07:52 (C4) 07:53 (C4)	16:04 15:58
19	04:52 21:51	05:51 20:47	06:36 (C1) 07:06 (C1)	06:53 19:26	07:55 (C4) 07:54 (C4)	16:02 15:58
20	04:54 21:49	05:53 20:45	06:38 (C1) 07:05 (C1)	06:55 19:23	07:57 (C4) 07:54 (C4)	16:01 15:59
21	04:56 21:48	05:55 20:42	06:39 (C1) 07:03 (C1)	06:57 19:20	07:59 (C4) 07:53 (C4)	16:00 15:58
22	04:57 21:46	05:57 20:40	06:41 (C1) 07:01 (C1)	06:59 19:18	08:01 (C4) 07:52 (C4)	16:00 15:56
23	04:59 21:45	05:59 20:37	06:44 (C1) 06:58 (C1)	07:01 19:15	08:03 (C4) 07:51 (C4)	16:00 15:55
24	05:01 21:43	06:01 20:35	07:03 (C1) 07:04 (C1)	07:03 19:12	08:05 (C4) 07:50 (C4)	16:00 15:53
25	05:03 21:41	06:03 20:32	07:05 (C1) 07:05 (C1)	07:05 19:10	08:07 (C4) 07:33 (C4)	16:00 15:52
26	05:04 21:39	06:05 20:29	07:07 (C1) 07:06 (C1)	07:07 19:07	08:15 (C4) 07:48 (C4)	16:00 15:51
27	05:06 21:38	06:07 20:27	07:09 (C1) 07:08 (C1)	07:09 19:04	08:17 (C4) 07:46 (C4)	16:00 15:49
28	05:08 21:36	06:09 20:24	07:11 (C1) 07:08 (C1)	07:11 19:02	08:19 (C4) 16:45	15:49 15:48
29	05:10 21:34	06:11 20:22	07:13 (C1) 07:09 (C1)	07:13 18:59	08:21 (C4) 16:43	15:49 15:47
30	05:12 21:32	06:13 20:19	07:15 (C1) 07:10 (C1)	07:15 18:56	08:22 (C4) 16:40	15:49 15:46
31	05:14 21:30	06:15 20:17	07:17 (C1) 07:11 (C1)	07:17 20:17	08:24 (C4) 16:38	15:49 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	264	784	218			558
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	83	248	58			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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

Shadow receptor: Arsmeniek (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) []

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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

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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:

09/04/2024 19:14/4.0.531

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
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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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	22	17:57 (C3) 18:19 (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	17:57 (C3) 18:18 (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	18	17:58 (C3) 18:16 (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	14	18:01 (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	7	18:04 (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			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 16:23	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	11	17:24 (C3)	06:27 17:35 (C3)	05:14 20:09	04:28 21:11	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	16	17:22 (C3)	06:24 17:38 (C3)	05:12 20:11	04:27 21:13	04:39 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	19	17:20 (C3)	06:22 17:39 (C3)	05:10 20:13	04:27 21:15	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	22	17:18 (C3)	06:19 17:40 (C3)	05:08 20:15	04:26 21:17	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	23	17:17 (C3)	06:17 17:40 (C3)	05:06 20:18	04:26 21:19	04:43 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	24	17:17 (C3)	06:14 17:41 (C3)	05:04 20:20	04:25 21:21	04:44 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	25	17:16 (C3)	06:11 17:41 (C3)	05:02 20:22	04:25 21:23	04:46 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	17:15 (C3)	06:09 17:40 (C3)	05:00 20:24	04:25 21:25	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	08:38 16:13	07:40 17:21	06:28 18:21	25	17:16 (C3)	06:06 17:41 (C3)	04:58 20:26	04:25 21:27	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	07:37 17:23	06:26 18:23	25	17:15 (C3)	06:04 17:40 (C3)	04:56 20:28	04:25 21:29	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	24	17:15 (C3)	06:01 17:39 (C3)	04:55 20:30	04:25 21:31	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	21	17:17 (C3)	05:59 17:38 (C3)	04:53 20:32	04:25 21:33	04:54 21:49	05:53 20:44	06:55 19:23	18:07 (C3)	07:56 18:18 (C3)			08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	20	17:17 (C3)	05:56 17:37 (C3)	04:51 20:34	04:25 21:34	04:55 21:48	05:55 20:42	06:57 19:20	18:04 (C3)	07:58 18:20 (C3)	11		08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	17	17:18 (C3)	05:54 17:35 (C3)	04:49 20:36	04:25 21:36	04:57 21:46	05:57 20:39	06:59 19:17	18:02 (C3)	08:01 18:21 (C3)	16		08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	12	17:20 (C3)	05:51 17:32 (C3)	04:48 20:38	04:25 21:38	04:59 21:44	05:59 20:37	07:01 19:15	18:01 (C3)	08:03 18:22 (C3)	19		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	06:01 21:43	07:03 20:34	08:05 19:12	17:59 (C3)	08:05 18:22 (C3)	23		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	06:02 21:41	07:05 20:32	08:07 19:09	17:58 (C3)	07:07 18:22 (C3)	24		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	06:05 21:39	07:07 20:29	08:09 19:07	17:58 (C3)	07:09 18:22 (C3)	24		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	06:06 21:37	07:09 20:27	08:11 19:04	17:57 (C3)	07:11 18:22 (C3)	25		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	06:08 21:35	07:11 20:24	08:13 19:01	17:57 (C3)	07:13 18:22 (C3)	25		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	06:11 21:33	07:13 20:21	08:15 18:58	17:57 (C3)	07:16 18:21 (C3)	24		08:20 15:47	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	06:13 21:31	07:15 20:19	08:17 18:56	17:57 (C3)	07:18 18:20 (C3)	23		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				309								235		82			
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				81								64		14			

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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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
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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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:41 (C14) 08:07 (C14)	06:49 19:53	05:33 20:55
2	08:51 15:50	08:13 16:48	07:08 17:50	07:40 (C14) 08:07 (C14)	06:46 19:55	05:30 20:58
3	08:50 15:51	08:11 16:50	07:06 17:52	07:40 (C14) 08:07 (C14)	06:44 19:57	05:28 21:00
4	08:50 15:52	08:09 16:52	07:03 17:54	07:40 (C14) 08:07 (C14)	06:41 19:59	05:26 21:02
5	08:49 15:54	08:07 16:54	07:01 17:56	07:39 (C14) 08:06 (C14)	06:38 20:01	05:24 21:04
6	08:49 15:55	08:05 16:57	06:58 17:58	07:40 (C14) 08:06 (C14)	06:36 20:03	05:21 21:06
7	08:48 15:56	08:03 16:59	06:55 18:01	07:40 (C14) 08:05 (C14)	06:33 20:06	05:19 21:08
8	08:48 15:58	08:01 17:01	06:53 18:03	07:41 (C14) 08:03 (C14)	06:30 20:08	05:17 21:10
9	08:47 16:00	07:58 17:03	06:50 18:05	07:42 (C14) 08:03 (C14)	06:28 20:10	05:15 21:12
10	08:46 16:01	07:56 17:05	06:48 18:07	07:43 (C14) 08:00 (C14)	06:25 20:12	05:13 21:14
11	08:45 16:03	07:54 17:08	06:45 18:09	07:45 (C14) 07:57 (C14)	06:22 20:14	05:11 21:16
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	06:45 (C13) 06:59 (C13)	05:09 21:18
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	06:43 (C13) 07:00 (C13)	05:07 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	06:40 (C13) 06:59 (C13)	05:05 21:22
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	06:38 (C13) 07:00 (C13)	05:03 21:24
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	06:38 (C13) 06:59 (C13)	05:01 21:26
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	06:38 (C13) 06:59 (C13)	04:59 21:27
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:38 (C13) 06:58 (C13)	04:57 21:29
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	06:38 (C13) 06:57 (C13)	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	06:39 (C13) 06:57 (C13)	04:53 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:40 (C13) 06:55 (C13)	04:52 21:35
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:42 (C13) 06:53 (C13)	04:50 21:37
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:45 (C13) 06:48 (C13)	04:48 21:38
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:47 (C13)	04:47 21:40
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	05:44 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	04:27 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		05:57 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	529
Total, worst case		106	257		220	
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		13	64	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)
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Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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) []

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1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 18:54	07:23 16:36
2	04:31 22:09	05:18 21:26	06:19 20:11	06:49 (C13) 18:51	07:19 18:51	07:25 16:34
3	04:32 22:08	05:20 21:24	06:21 20:09	06:51 (C13) 18:48	07:21 18:48	07:27 16:32
4	04:33 22:07	05:22 21:22	06:23 20:06	06:53 (C13) 18:46	07:23 18:46	07:29 16:30
5	04:34 22:07	05:24 21:20	06:25 20:04	06:55 (C13) 18:43	07:25 18:43	07:31 16:27
6	04:35 22:06	05:25 21:17	06:27 20:01	06:57 (C13) 18:40	07:27 18:40	07:33 16:25
7	04:36 22:05	05:27 21:15	06:29 19:58	06:59 (C13) 18:38	07:29 18:38	07:35 16:23
8	04:37 22:04	05:29 21:13	06:31 19:56	07:01 (C13) 18:35	07:31 18:35	07:37 16:21
9	04:38 22:03	05:31 21:11	06:33 19:53	07:03 (C13) 18:33	07:33 18:33	07:39 16:19
10	04:40 22:02	05:33 21:08	06:35 19:50	07:05 (C13) 18:30	07:35 18:30	07:41 16:17
11	04:41 22:01	05:35 21:06	06:37 19:48	07:07 (C13) 18:27	07:37 18:27	07:43 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:09 (C13) 18:25	07:39 18:25	07:45 16:13
13	04:44 21:59	05:39 21:02	06:41 19:42	07:11 (C13) 18:22	07:41 18:22	07:47 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:13 (C13) 18:20	07:43 18:20	07:49 16:10
15	04:46 21:57	05:43 20:57	06:45 19:37	07:15 (C13) 18:17	07:45 18:17	07:51 16:08
16	04:48 21:55	05:45 20:54	06:47 19:34	07:17 (C13) 18:15	07:47 18:15	07:53 16:06
17	04:49 21:54	05:47 20:52	06:49 19:31	07:19 (C13) 18:12	07:49 18:12	07:55 16:04
18	04:51 21:52	05:49 20:50	06:51 19:29	07:21 (C13) 18:09	07:51 18:09	07:57 16:03
19	04:53 21:51	05:51 20:47	06:53 19:26	07:23 (C13) 18:07	07:53 18:07	07:59 16:01
20	04:54 21:49	05:53 20:45	06:55 (C13) 19:23	07:25 (C13) 18:04	07:55 18:04	08:01 15:59
21	04:56 21:48	05:55 20:42	06:57 (C13) 19:21	07:27 (C13) 18:02	07:57 18:02	08:03 15:58
22	04:58 21:46	05:57 20:40	06:59 (C13) 19:18	07:29 (C13) 18:00	07:59 18:00	08:05 15:56
23	04:59 21:45	05:59 20:37	07:01 (C13) 19:15	07:31 (C13) 17:57	08:01 17:57	08:07 15:55
24	05:01 21:43	06:01 20:35	07:03 (C13) 19:12	07:33 (C13) 17:55	08:03 17:55	08:09 15:53
25	05:03 21:41	06:03 20:32	07:05 (C13) 19:10	07:35 (C13) 17:52	08:05 17:52	08:11 15:52
26	05:05 21:39	06:05 20:30	07:07 (C13) 19:07	07:37 (C13) 17:50	08:07 17:50	08:13 15:51
27	05:06 21:38	06:07 20:27	07:09 (C13) 19:04	07:39 (C13) 17:48	08:09 17:48	08:15 15:50
28	05:08 21:36	06:09 20:24	07:11 (C13) 19:02	07:41 (C13) 17:46	08:11 17:46	08:17 15:49
29	05:10 21:34	06:11 20:22	07:13 (C13) 18:59	07:43 (C13) 17:43	08:13 17:43	08:19 15:47
30	05:12 21:32	06:13 20:19	07:15 (C13) 18:56	07:45 (C13) 17:41	08:15 17:41	08:21 15:46
31	05:14 21:30	06:15 20:17	07:17 (C13) 18:53	07:47 (C13) 17:38	08:17 17:38	08:23 15:44
Potential sun hours	529	469	385	324	247	216
Total, worst case		206	20	373		
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		66	5	59		

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)
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Vilandes 3-6

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Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	07:37 (C14) 19:53	05:33 20:55	06:27 (C13) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	07:34 (C14) 19:55	05:30 20:58	06:35 (C13) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	07:33 (C14) 19:57	05:28 21:00	06:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	07:32 (C14) 19:59	05:26 21:02	06:41 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	07:31 (C14) 20:01	05:24 21:04	06:38 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	07:31 (C14) 20:03	05:21 21:06	06:36 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	07:30 (C14) 20:06	05:19 21:08	06:33 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	07:29 (C14) 20:08	05:17 21:10	06:30 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	07:30 (C14) 20:10	05:15 21:12	06:28 22:02
10	08:46 16:01	07:56 17:05	06:48 18:07	07:29 (C14) 20:12	05:13 21:14	06:25 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	07:29 (C14) 20:14	05:11 21:16	06:22 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	07:30 (C14) 20:16	05:09 21:18	06:20 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	07:30 (C14) 20:17	05:07 21:20	06:17 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	07:30 (C14) 20:20	05:05 21:22	06:15 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	07:32 (C14) 20:22	05:03 21:24	06:12 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	07:33 (C14) 20:24	05:01 21:25	06:09 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	07:35 (C14) 20:26	04:59 21:27	06:07 22:08
18	08:38 16:16	07:38 17:23	06:26 18:24	07:40 (C14) 20:28	04:57 21:29	06:04 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	07:43 (C14) 20:31	04:55 21:31	06:02 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	06:26 (C13) 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:45 (C13) 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	06:44 (C13) 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	06:42 (C13) 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:40 (C13) 22:10
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	06:44 (C13) 22:10
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	06:44 (C13) 22:10
27	08:24 16:34	07:16 17:43	07:43 (C14) 18:43	05:42 20:47	04:42 21:45	06:42 (C13) 22:10
28	08:22 16:37	07:13 17:45	07:40 (C14) 18:45	05:40 20:49	04:41 21:47	06:23 (C13) 22:10
29	08:20 16:39	07:11 17:43	07:54 (C14) 18:45	05:37 20:51	04:40 21:48	06:41 (C13) 22:10
30	08:19 16:41	07:10 17:42	07:55 (C14) 18:46	05:35 20:53	04:38 21:50	06:40 (C13) 22:10
31	08:17 16:43	07:09 17:44	07:56 (C14) 18:47	05:33 20:55	04:37 21:51	06:39 (C13) 22:09
Potential sun hours	235	266	366	426	508	529
Total, worst case			438	263	8	
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		3	110	83	3	

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

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09/04/2024 19:14/4.0.531

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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	08:09 (C14)	07:23
	22:09	21:28	20:14	18:54	28 08:37 (C14)	16:36
2	04:31	05:18	06:19	07:19	08:08 (C14)	07:25
	22:09	21:26	20:11	18:51	29 08:37 (C14)	16:34
3	04:32	05:20	06:21	07:21	08:07 (C14)	07:27
	22:08	21:24	20:09	18:48	30 08:37 (C14)	16:32
4	04:33	05:22	06:23	07:23	08:07 (C14)	07:29
	22:07	21:22	20:06	18:46	30 08:37 (C14)	16:30
5	04:34	05:23	06:25	07:25	08:06 (C14)	07:31
	22:07	21:20	20:04	18:43	30 08:36 (C14)	16:27
6	04:35	05:25	06:27	07:28	08:06 (C14)	07:33
	22:06	21:17	20:01	18:40	30 08:36 (C14)	16:25
7	04:36	05:27	06:29	07:30	08:06 (C14)	07:36
	22:05	21:15	19:58	18:38	29 08:35 (C14)	16:23
8	04:37	05:29	06:31	07:32	08:06 (C14)	07:38
	22:04	21:13	19:56	18:35	29 08:35 (C14)	16:21
9	04:38	05:31	06:33	07:34	08:07 (C14)	07:40
	22:03	21:11	19:53	18:33	27 08:34 (C14)	16:19
10	04:40	05:33	06:35	07:36	08:07 (C14)	07:42
	22:02	21:08	19:50	18:30	26 08:33 (C14)	16:17
11	04:41	05:35	06:37	07:38	08:08 (C14)	07:44
	22:01	21:06	19:47	18:27	24 08:32 (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	21 08:30 (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	17 08:28 (C14)	16:11
14	04:45	05:41	06:43	07:44	08:13 (C14)	07:51
	21:58	20:59	19:39	18:20	12 08:25 (C14)	16:10
15	04:46	05:43	06:45	07:46		07:53
	21:57	20:57	19:37	18:17		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		08:11
	21:43	20:35	19:12	17:55		15:53
25	05:03	06:03	07:05	07:07		08:13
	21:41	20:32	19:10	16:52		15:52
26	05:05	06:05	07:07	08:19 (C14)		08:15
	21:39	20:30	19:07	11 08:30 (C14)		15:51
27	05:06	06:07	07:09	08:16 (C14)		08:17
	21:38	20:27	19:04	17 08:33 (C14)		15:50
28	05:08	06:09	07:11	08:13 (C14)		08:19
	21:36	20:24	19:02	21 08:34 (C14)		15:48
29	05:10	06:11	07:13	08:12 (C14)		08:21
	21:34	20:22	18:59	24 08:36 (C14)		15:47
30	05:12	06:13	07:15	08:10 (C14)		08:22
	21:32	20:19	18:56	26 08:36 (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		270	99		362	
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		85	26	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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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 19:40	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 18:04	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:

09/04/2024 19:14/4.0.531

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
---	-----	-----	---	-----	-----	---	-----	-----	---	-----	-----	-----

442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584
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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	08:08 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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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
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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
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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
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Total, worst case												
Sun reduction												
Oper. time red.												
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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
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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:

09/04/2024 19:14/4.0.531

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
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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	06:35 (C16) 21:52
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	06:37 (C16) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	06:39 (C16) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:42 (C16) 21:56
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:24 21:04	06:49 (C16) 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 18:01	06:33 20:05	05:19 21:08	04:30 22:00
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
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
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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	07:49 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06
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30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09
31	08:17 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	528
Total, worst case				450	58	689
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	0.36	0.37
Total, real				144	21	252

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)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:14/4.0.531

SHADOW - Calendar

Shadow receptor: Udri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (186)

Assumptions for shadow calculations

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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
442	466	539	464	488	781	784	938	1,215	1,079	833	556	8,584

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

	July	August	September	October	November	December
1	04:30 22:09	05:20 (C15) 21:28	05:16 20:14	06:17 18:54	07:17 16:36	08:24 15:45
2	04:31 22:08	05:20 (C15) 21:26	05:18 20:11	06:19 18:51	07:19 16:34	08:26 15:44
3	04:32 22:08	05:21 (C15) 21:24	05:20 20:09	06:21 18:48	07:21 16:32	08:27 15:43
4	04:33 22:07	05:22 (C15) 21:22	05:22 20:06	06:23 18:46	07:23 16:29	08:29 15:43
5	04:34 22:07	05:23 (C15) 21:19	05:23 20:03	06:25 18:43	07:25 16:27	08:31 15:42
6	04:35 22:06	05:24 (C15) 21:17	05:25 20:01	06:27 18:40	07:27 16:25	08:32 15:41
7	04:36 22:05	05:25 (C15) 21:15	05:27 19:58	06:29 18:38	07:29 16:23	08:34 15:40
8	04:37 22:04	05:26 (C15) 21:13	05:29 19:55	06:31 18:35	07:32 16:21	08:35 15:40
9	04:38 22:03	05:28 (C15) 21:11	05:31 19:53	06:33 18:32	07:34 16:19	08:36 15:39
10	04:40 22:02	05:30 (C15) 21:08	05:33 19:50	06:35 18:30	07:36 16:17	08:38 15:39
11	04:41 22:01	05:37 (C15) 21:06	05:35 19:47	06:37 18:27	07:38 16:15	08:39 15:39
12	04:42 22:00	05:37 21:04	05:37 19:45	06:39 18:25	07:40 16:13	08:40 15:38
13	04:44 21:59	05:39 21:01	05:39 19:42	06:41 18:22	07:42 16:11	08:41 15:38
14	04:45 21:58	05:41 20:59	05:41 19:39	06:42 18:20	07:44 16:09	08:43 15:38
15	04:46 21:56	05:43 20:57	05:43 19:37	06:45 18:17	07:46 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	05:45 19:34	06:47 18:14	07:48 16:06	08:44 15:38
17	04:49 21:54	05:47 20:52	05:47 19:31	06:49 18:12	07:50 16:04	08:45 15:38
18	04:51 21:52	05:49 20:49	05:49 19:29	06:51 18:09	07:52 16:03	08:46 15:38
19	04:53 21:51	05:51 20:47	05:51 19:26	06:53 18:07	07:55 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	05:53 19:23	06:55 18:04	07:57 15:59	08:48 15:39
21	04:56 21:48	05:55 20:42	05:55 19:20	06:57 18:02	07:59 15:58	08:48 15:39
22	04:58 21:46	05:57 20:40	05:57 19:18	06:59 18:00	08:01 15:56	08:49 15:40
23	04:59 21:44	05:59 20:37	05:59 19:15	07:01 17:57	08:03 15:55	08:49 15:40
24	05:01 21:43	06:01 20:35	06:01 19:12	07:03 17:55	08:05 15:53	08:50 15:41
25	05:03 21:41	06:03 20:32	06:03 19:10	07:05 17:52	08:07 15:52	08:50 15:41
26	05:05 21:39	06:05 20:29	06:05 19:07	07:07 17:50	08:09 15:51	08:50 15:42
27	05:06 21:37	06:07 20:27	06:07 19:04	07:09 17:48	08:11 15:50	08:51 15:43
28	05:08 21:36	06:09 20:24	06:09 19:02	07:11 17:46	08:13 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	06:11 18:59	07:13 17:43	08:15 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	06:13 18:56	07:15 17:41	08:17 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17	06:15 18:54	07:17 17:38	08:19 15:47	08:51 15:47
Potential sun hours	529	469	384	324	248	216
Total, worst case	183	512				
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	59	163				

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)