

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:50	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
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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)

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Vilandes 3-6

LV-1010 Riga

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Calculated:

10/04/2024 05:50/4.0.531

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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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
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Oper. time red.												
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Total reduction												
Total, real												

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	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

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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
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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

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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:

10/04/2024 05:50/4.0.531

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) []

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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
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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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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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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)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
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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 21:52	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:

10/04/2024 05:50/4.0.531

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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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 22:07	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	08:12 17:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	26	17:46 (B3) 18:12 (B3)	07:22 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	07:08 17:49		06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11		07:19 18:50	26	17:46 (B3) 18:12 (B3)	07:24 16:33	08:26 15:43
3	08:50 15:50	08:10 16:49	07:05 17:51		06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08		07:21 18:48	25	17:46 (B3) 18:11 (B3)	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	17:48 (B3) 18:11 (B3)	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	21	17:48 (B3) 18:09 (B3)	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	13	17:15 (B3) 17:28 (B3)	06:35 20:03	05:21 21:05	04:30 21:59	05:25 22:06	06:27 20:00		07:27 18:40	18	17:49 (B3) 18:07 (B3)	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	16	17:14 (B3) 17:30 (B3)	06:32 20:05	05:18 21:07	04:29 22:00	05:27 21:15	06:29 19:58		07:29 18:37	15	17:50 (B3) 18:05 (B3)	07:35 16:23	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	19	17:12 (B3) 17:31 (B3)	06:30 20:07	05:16 21:09	04:29 22:01	05:29 21:13	06:31 19:55		07:31 18:35	9	17:53 (B3) 18:02 (B3)	07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	22	17:10 (B3) 17:32 (B3)	06:27 20:09	05:14 21:11	04:28 22:02	05:31 21:10	06:33 19:52		07:33 18:32			07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	23	17:10 (B3) 17:33 (B3)	06:24 20:11	05:12 21:13	04:27 22:03	05:33 21:08	06:35 19:50		07:35 18:29			07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	25	17:08 (B3) 17:33 (B3)	06:22 20:13	05:10 21:15	04:27 22:04	05:35 22:01	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	25	17:08 (B3) 17:33 (B3)	06:19 20:15	05:08 21:17	04:26 22:05	05:37 22:00	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	26	17:07 (B3) 17:33 (B3)	06:17 20:18	05:06 21:19	04:26 22:06	05:39 21:59	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	26	17:07 (B3) 17:33 (B3)	06:14 20:20	05:04 21:21	04:25 22:06	05:41 21:58	06:43 20:59		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	17:07 (B3) 17:32 (B3)	06:11 20:22	05:02 21:23	04:25 22:07	05:43 21:56	06:45 20:56		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	24	17:07 (B3) 17:31 (B3)	06:09 20:24	05:00 21:25	04:25 22:08	05:45 21:55	06:47 20:54		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	17:08 (B3) 17:31 (B3)	06:06 20:26	04:58 21:27	04:25 22:08	05:49 21:54	06:49 20:52		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	21	17:08 (B3) 17:29 (B3)	06:04 20:28	04:56 21:29	04:25 22:09	05:49 21:52	06:51 20:49		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	18	17:09 (B3) 17:27 (B3)	06:01 20:30	04:55 21:31	04:25 22:09	05:51 21:51	06:53 20:47		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	14	17:12 (B3) 17:26 (B3)	05:59 20:32	04:53 21:33	04:25 22:09	05:53 21:49	06:55 20:44		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	8	17:14 (B3) 17:22 (B3)	05:56 20:34	04:51 21:34	04:25 22:10	05:55 21:48	06:57 20:42		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	18:01 (B3) 18:05 (B3)	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	17:56 (B3) 18:09 (B3)	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	17:54 (B3) 18:11 (B3)	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	17:52 (B3) 18:12 (B3)	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	17:50 (B3) 18:12 (B3)	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	17:49 (B3) 18:13 (B3)	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	17:48 (B3) 18:13 (B3)	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	17:47 (B3) 18:13 (B3)	07:16 16:42			08:20 15:47	08:51 15:44
30	08:18 16:40		06:54 19:48		05:34 20:53	04:38 21:49	04:29 22:09	05:11 21:31	06:13 20:19	07:15 18:56	17:47 (B3) 18:13 (B3)	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			328								177		163			
Sun reduction			0.41								0.43		0.26			
Oper. time red.			0.94								0.94		0.94			
Wind dir. red.			0.65								0.65		0.65			
Total reduction			0.25								0.26		0.16			
Total, real			83								46		26			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 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 (B14) 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 (B14) 19:57	06:44 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:20 20:09	06:21 18:48	07:21 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	07:50 (B14) 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:22 20:06	06:23 18:46	07:23 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	07:51 (B14) 19:59	06:38 21:04	05:24 21:58	04:34 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	07:53 (B14) 19:59	06:36 21:06	05:21 21:59	04:35 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	08:09 (B14) 20:03	06:33 21:06	05:19 21:59	04:36 22:06	04:36 21:15	05:27 19:58	06:29 18:38	07:30 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	08:05 (B14) 20:06	06:33 21:08	05:17 22:00	04:37 22:05	04:37 21:15	05:29 19:58	06:31 18:38	07:32 16:23	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:30 20:10	05:17 21:12	04:29 22:02	04:37 22:03	04:37 21:11	05:29 19:53	06:31 18:33	07:34 16:20	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	04:40 21:09	05:33 19:50	06:35 18:30	07:36 16:22	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	04:41 21:06	05:35 19:48	06:37 18:27	07:38 16:23	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	04:42 21:04	05:37 19:45	06:39 18:25	07:40 16:24	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	04:44 21:02	05:39 19:42	06:41 18:22	07:42 16:25	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	04:45 20:59	05:41 19:39	06:43 18:20	07:44 16:26	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	04:46 20:57	05:43 19:37	06:45 18:17	07:46 16:28	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	04:48 20:54	05:45 19:34	06:47 18:15	07:48 16:30	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 20:52	05:47 19:31	06:49 18:12	07:50 16:32	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	04:51 20:50	05:49 19:29	06:51 18:09	07:53 16:34	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	04:53 20:47	05:51 19:26	06:53 18:07	07:55 16:36	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:49	04:54 20:45	05:53 19:23	06:55 18:04	07:57 16:38	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	04:56 20:42	05:55 19:21	06:57 18:02	07:59 16:40	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	04:58 20:40	05:57 19:18	06:59 18:00	08:01 16:42	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	04:59 20:37	05:59 19:15	07:01 17:57	08:03 16:44	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	05:01 20:35	06:01 19:12	07:03 17:55	08:05 16:46	08:51 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	05:03 20:32	06:03 19:10	07:05 17:52	08:07 16:48	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	05:05 20:30	06:05 19:07	07:07 17:50	08:09 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	04:27 22:10	05:06 21:38	05:06 20:27	06:07 19:04	07:09 17:48	08:12 16:52	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 20:24	06:09 19:02	07:11 17:45	08:14 16:54	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	05:10 20:22	06:11 18:59	07:13 17:43	08:16 16:56	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	05:12 20:19	06:13 18:56	07:15 17:41	08:18 16:58	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	05:14 20:17	06:15 18:38	07:20 17:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		187	139							328		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.94	0.94							0.94		
Wind dir. red.		0.63	0.63							0.63		
Total reduction		0.12	0.24							0.15		
Total, real		22	34							50		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	07:47 (B14) 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 15:45
2	08:51 15:50	08:13 16:48	26	07:08 17:50	07:47 (B14) 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 15:44
3	08:50 15:51	08:11 16:50	25	07:06 17:52	07:48 (B14) 19:57	06:44 21:00	05:28 21:55	04:32 22:08	04:32 21:24	05:20 20:09	06:21 18:48	07:21 15:43
4	08:50 15:52	08:09 16:52	24	07:03 17:54	07:48 (B14) 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:22 20:06	06:23 18:46	07:23 15:43
5	08:49 15:54	08:07 16:54	23	07:01 17:56	07:48 (B14) 19:59	06:38 21:04	05:24 21:58	04:34 22:07	04:34 21:20	05:24 20:04	06:25 18:43	07:25 15:42
6	08:49 15:55	08:05 16:57	22	06:58 17:58	07:50 (B14) 19:59	06:36 21:06	05:21 21:59	04:35 22:06	04:35 21:17	05:25 20:01	06:27 18:40	07:28 15:41
7	08:48 15:56	08:03 16:59	19	06:55 18:01	07:51 (B14) 19:59	06:33 21:06	05:19 22:00	04:36 22:05	04:36 21:15	05:27 19:58	06:29 18:38	07:30 15:40
8	08:48 15:58	08:01 17:01	15	06:53 18:03	07:53 (B14) 19:59	06:30 21:08	05:17 22:01	04:37 22:04	04:37 21:13	05:29 19:56	06:31 18:35	07:32 15:40
9	08:47 16:00	07:58 17:03	10	06:50 18:05	08:03 (B14) 19:59	06:30 21:10	05:17 22:01	04:37 22:04	04:37 21:13	05:29 19:56	06:31 18:35	07:32 15:40
10	08:46 16:01	07:56 17:05		06:48 18:07		06:28 21:12	05:15 22:02	04:38 22:03	04:38 21:11	05:31 19:53	06:33 18:33	07:34 15:39
11	08:45 16:03	07:54 17:08		06:45 18:09		06:25 21:16	05:13 22:03	04:40 22:02	04:40 21:09	05:33 19:50	06:35 18:30	07:36 15:39
12	08:44 16:04	07:52 17:10		06:42 18:11		06:22 21:18	05:11 22:05	04:41 22:00	04:41 21:04	05:35 19:45	06:37 18:25	07:38 15:38
13	08:43 16:06	07:50 17:12		06:40 18:13		06:17 21:20	05:07 22:06	04:42 21:59	04:42 21:02	05:39 19:42	06:41 18:22	07:42 15:38
14	08:42 16:08	07:47 17:14		06:37 18:16		06:15 21:22	05:05 22:07	04:45 21:58	04:45 21:05	05:41 19:39	06:43 18:20	07:44 15:38
15	08:41 16:10	07:45 17:17		06:34 18:18		06:12 21:24	05:03 22:07	04:46 21:57	04:46 21:05	05:43 19:37	06:45 18:17	07:46 15:38
16	08:40 16:12	07:43 17:19		06:32 18:20		06:09 21:26	05:01 22:08	04:48 21:55	04:48 21:05	05:45 19:34	06:47 18:15	07:48 15:38
17	08:39 16:14	07:40 17:21		06:29 18:22		06:07 21:27	04:59 22:08	04:49 21:54	04:49 21:05	05:47 19:31	06:49 18:12	07:50 15:38
18	08:38 16:16	07:38 17:23		06:26 18:24		06:04 21:29	04:57 22:09	04:51 21:52	04:51 21:05	05:49 19:29	06:51 18:09	07:53 15:38
19	08:36 16:18	07:36 17:26		06:24 18:26		06:02 21:31	04:55 22:09	04:53 21:51	04:53 21:07	05:51 19:26	06:53 18:07	07:55 15:38
20	08:35 16:20	07:33 17:28	08:00 (B14)	06:21 18:28		05:59 21:33	04:53 22:10	04:54 21:49	04:54 21:05	05:53 19:23	06:55 18:04	07:57 15:39
21	08:33 16:22	07:31 17:30	5	06:18 18:30		05:57 21:35	04:52 22:10	04:56 21:48	04:56 21:05	05:55 19:21	06:57 18:02	07:59 15:39
22	08:32 16:24	07:28 17:32	10	06:16 18:32		05:54 21:37	04:50 22:10	04:58 21:46	04:58 21:05	05:57 19:18	06:59 18:00	08:01 15:39
23	08:30 16:26	07:26 17:34	15	06:13 18:34		05:52 21:38	04:48 22:10	04:59 21:45	04:59 21:05	05:59 19:15	07:01 17:57	08:03 15:40
24	08:29 16:28	07:23 17:37	19	06:10 18:36		05:49 21:40	04:47 22:10	05:01 21:43	05:01 21:05	06:01 19:12	07:03 17:55	08:05 15:41
25	08:27 16:30	07:21 17:39	22	06:08 18:39		05:47 21:42	04:45 22:10	05:03 21:41	05:03 21:05	06:03 19:10	07:05 17:52	08:07 15:41
26	08:26 16:32	07:18 17:41	24	06:05 18:41		05:45 21:43	04:44 22:10	05:05 21:39	05:05 21:05	06:05 19:07	07:07 17:50	08:09 15:41
27	08:24 16:34	07:16 17:43	25	06:02 18:43		05:42 21:45	04:42 22:10	05:06 21:38	05:06 21:05	06:07 19:04	07:09 17:48	08:11 15:41
28	08:22 16:37	07:13 17:45	26	06:00 18:45		05:40 21:47	04:41 22:10	05:08 21:36	05:08 21:05	06:09 19:02	07:11 17:45	08:13 15:41
29	08:20 16:39		26	05:57 19:47		05:37 20:51	04:40 22:10	05:10 21:34	05:10 21:05	06:11 19:02	07:13 17:43	08:15 15:41
30	08:19 16:41			05:54 19:49		05:35 20:53	04:38 22:09	05:12 21:32	05:12 21:05	06:13 18:56	07:15 17:41	08:17 15:41
31	08:17 16:43			05:52 19:51		05:33 21:51	04:37 22:09	05:14 21:30	05:14 21:05	06:15 18:56	07:17 17:38	08:19 15:41
Potential sun hours	235	266		366		426	508	529	529	469	385	324
Total, worst case												
Sun reduction		172		164								
Oper. time red.		0.20		0.41								
Wind dir. red.		0.63		0.94								
Total reduction		0.12		0.63								
Total, real		20		0.24								

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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B1) 18:18 (B1)	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	08:06 (B1) 18:15 (B1)	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	08:06 (B1) 18:15 (B1)	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	08:06 (B1) 18:15 (B1)	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	08:06 (B1) 18:15 (B1)	06:38 19:59	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	08:06 (B1) 18:15 (B1)	06:35 19:59	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	08:06 (B1) 18:15 (B1)	06:33 19:59	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 20:01	07:30 18:40	07:36 16:25
8	08:48 15:58	08:01 17:01	06:53 18:03	08:06 (B1) 18:15 (B1)	06:30 19:59	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 20:01	07:32 18:40	07:38 16:25
9	08:47 15:59	07:58 17:03	06:50 18:05	08:06 (B1) 18:15 (B1)	06:27 19:59	05:15 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 20:01	07:34 18:40	07:40 16:25
10	08:46 16:01	07:56 17:05	06:47 18:07	08:06 (B1) 18:15 (B1)	06:25 19:59	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 20:01	07:36 18:40	07:42 16:25
11	08:45 16:03	07:54 17:08	06:45 18:09	08:06 (B1) 18:15 (B1)	06:22 19:59	05:10 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 20:01	07:38 18:40	07:44 16:25
12	08:44 16:04	07:52 17:10	06:42 18:11	08:06 (B1) 18:15 (B1)	06:20 19:59	05:08 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 20:01	07:40 18:40	07:46 16:25
13	08:43 16:06	07:50 17:12	06:40 18:13	08:06 (B1) 18:15 (B1)	06:17 19:59	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 20:01	07:42 18:40	07:48 16:25
14	08:42 16:08	07:47 17:14	06:37 18:15	08:06 (B1) 18:15 (B1)	06:14 19:59	05:04 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:40	07:51 16:25
15	08:41 16:10	07:45 17:17	06:34 18:17	08:06 (B1) 18:15 (B1)	06:12 19:59	05:02 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:40	07:53 16:25
16	08:40 16:12	07:43 17:19	06:32 18:20	08:06 (B1) 18:15 (B1)	06:10 19:59	05:00 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:40	07:55 16:25
17	08:39 16:14	07:40 17:21	06:29 18:22	08:06 (B1) 18:15 (B1)	06:07 19:59	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:40	07:57 16:25
18	08:38 16:16	07:38 17:23	06:26 18:24	08:06 (B1) 18:15 (B1)	06:04 19:59	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:40	07:59 16:25
19	08:36 16:18	07:36 17:25	06:24 18:26	08:06 (B1) 18:15 (B1)	06:02 19:59	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:40	08:01 16:25
20	08:35 16:20	07:33 17:28	06:21 18:28	08:06 (B1) 18:15 (B1)	05:59 19:59	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:40	08:03 16:25
21	08:33 16:22	07:31 17:30	06:18 18:30	08:06 (B1) 18:15 (B1)	05:57 19:59	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:40	08:05 16:25
22	08:32 16:24	07:28 17:32	06:15 18:32	08:06 (B1) 18:15 (B1)	05:54 19:59	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 18:40	08:07 16:25
23	08:30 16:26	07:26 17:34	06:13 18:34	08:06 (B1) 18:15 (B1)	05:52 19:59	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 18:40	08:09 16:25
24	08:29 16:28	07:23 17:37	06:10 18:36	08:06 (B1) 18:15 (B1)	05:49 19:59	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:12	08:05 18:40	08:11 16:25
25	08:27 16:30	07:21 17:39	06:07 18:38	08:06 (B1) 18:15 (B1)	05:47 19:59	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 18:40	08:13 16:25
26	08:26 16:32	07:18 17:41	06:05 18:41	08:06 (B1) 18:15 (B1)	05:44 19:59	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:30	07:07 19:07	08:09 18:40	08:15 16:25
27	08:24 16:34	07:16 17:43	06:02 18:43	08:06 (B1) 18:15 (B1)	05:42 19:59	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:11 18:40	08:17 16:25
28	08:22 16:36	07:13 17:45	05:59 18:45	08:06 (B1) 18:15 (B1)	05:39 19:59	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:13 18:40	08:19 16:25
29	08:20 16:39	07:11 17:48	05:57 18:47	08:06 (B1) 18:15 (B1)	05:37 19:59	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:15 18:40	08:21 16:25
30	08:19 16:41	07:10 17:49	05:54 18:49	08:06 (B1) 18:15 (B1)	05:35 19:59	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:17 18:40	08:23 16:25
31	08:17 16:43	07:09 17:51	05:51 18:51	08:06 (B1) 18:15 (B1)	05:33 19:59	04:37 21:51	04:30 22:10	05:14 21:30	06:15 20:17	07:20 16:38	08:19 18:40	08:25 16:25
Potential sun hours	235	266	366	426	508	529	529	469	385	324	271	216
Total, worst case		243	23									
Sun reduction		0.20	0.41								0.26	
Oper. time red.		0.94	0.94								0.94	
Wind dir. red.		0.62	0.62								0.62	
Total reduction		0.12	0.24								0.15	
Total, real		29	6								41	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Day in month	Sun rise (hh:mm)	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:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	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	23	08:24 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	08:24 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 19:57	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	08:23 15:41
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 19:58	05:21 21:06	04:31 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	18	08:23 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	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	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	08:18 15:40
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
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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	09:10 (B1) 09:15 (B1)	08:07 15:56
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	09:07 (B1) 09:20 (B1)	08:09 15:55
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	09:05 (B1) 09:21 (B1)	08:11 15:53
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	08:03 (B1) 08:24 (B1)	08:13 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	08:02 (B1) 08:24 (B1)	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	08:01 (B1) 08:24 (B1)	08:19 15:48
29	08:20 16:39		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	08:16 17:43	08:01 (B1) 08:25 (B1)	08:21 15:47
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 17:40	08:01 (B1) 08:25 (B1)	08:23 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	08:01 (B1) 08:25 (B1)		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		317								191		
Sun reduction		0.20								0.26		
Oper. time red.		0.94								0.94		
Wind dir. red.		0.61								0.61		
Total reduction		0.12								0.15		
Total, real		37								28		7

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:12	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
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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 15:40
23	08:31 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:08 16:52	08:13 15:52	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 20:25	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
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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:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	07:55 (B22) 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	07:57 (B22) 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 (B22) 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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28	08:22 16:36	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:05 17:45	08:48 (B22) 15:48	08:19 15:44
29	08:20 16:39	07:10 17:48	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	08:05 17:43	08:49 (B22) 15:47	08:21 15:45
30	08:19 16:41	07:09 17:51	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	08:05 17:41	08:50 (B22) 15:46	08:23 15:46
31	08:17 16:43	07:07 17:51	06:51 19:51	05:33 21:51	04:37 21:51	04:30 22:10	05:14 21:30	06:15 20:17	07:20 16:38	08:05 13	08:51 (B22) 15:47	08:51 216
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		253								244	13	
Sun reduction		0.20								0.26	0.08	
Oper. time red.		0.94								0.94	0.94	
Wind dir. red.		0.62								0.62	0.62	
Total reduction		0.12								0.15	0.05	
Total, real		30								37	1	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Birztales - 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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

January		February		March		April		May		June	
1	08:51		08:15	08:49 (B24)	07:11	06:49		05:33	04:36		
	15:48		16:45	64 10:13 (B14)	17:48	19:53		20:55	21:53		
2	08:50		08:13	08:49 (B24)	07:08	06:46		05:30	04:35		
	15:49		16:48	64 10:14 (B14)	17:50	19:55		20:57	21:54		
3	08:50		08:11	08:49 (B24)	07:06	06:43		05:28	04:34		
	15:51		16:50	65 10:14 (B14)	17:52	19:57		21:00	21:55		
4	08:50		08:09	08:50 (B24)	07:03	06:41	07:12 (B22)	05:26	04:33		
	15:52		16:52	63 10:14 (B14)	17:54	19:59	10 07:22 (B22)	21:02	21:57		
5	08:49		08:07	08:50 (B24)	07:01	06:38	07:08 (B22)	05:23	04:32		
	15:53		16:54	63 10:14 (B14)	17:56	20:01	17 07:25 (B22)	21:04	21:58		
6	08:49		08:05	08:50 (B24)	06:58	06:35	07:06 (B22)	05:21	04:31		
	15:55		16:56	62 10:13 (B14)	17:58	20:03	21 07:27 (B22)	21:06	21:59		
7	08:48		08:03	08:50 (B24)	06:55	06:33	07:04 (B22)	05:19	04:30		
	15:56		16:59	61 10:13 (B14)	18:01	20:06	24 07:28 (B22)	21:08	22:00		
8	08:48		08:01	08:51 (B24)	06:53	06:30	07:03 (B22)	05:17	04:29		
	15:58		17:01	58 10:12 (B14)	18:03	20:08	27 07:30 (B22)	21:10	22:01		
9	08:47	09:43 (B14)	07:58	08:52 (B24)	06:50	06:28	07:01 (B22)	05:15	04:29		
	16:00	8 09:51 (B14)	17:03	53 10:11 (B14)	18:05	20:10	29 07:30 (B22)	21:12	22:02		
10	08:46	09:41 (B14)	07:56	08:53 (B24)	06:47	06:25	07:00 (B22)	05:13	04:28		
	16:01	12 09:53 (B14)	17:05	50 10:10 (B14)	18:07	20:12	30 07:30 (B22)	21:14	22:03		
11	08:45	09:40 (B14)	07:54	08:55 (B24)	06:45	06:22	06:59 (B22)	05:11	04:27		
	16:03	16 09:56 (B14)	17:08	44 10:09 (B14)	18:09	20:14	32 07:31 (B22)	21:16	22:04		
12	08:44	09:39 (B14)	07:52	08:56 (B24)	06:42	06:20	06:58 (B22)	05:09	04:27		
	16:05	19 09:58 (B14)	17:10	38 10:07 (B14)	18:11	20:16	32 07:30 (B22)	21:18	22:05		
13	08:43	09:37 (B14)	07:50	09:43 (B14)	06:40	06:17	06:58 (B22)	05:07	04:26		
	16:06	22 09:59 (B14)	17:12	23 10:06 (B14)	18:13	20:18	33 07:31 (B22)	21:20	22:06		
14	08:42	09:37 (B14)	07:47	09:44 (B14)	06:37	06:15	06:57 (B22)	05:05	04:26		
	16:08	24 10:01 (B14)	17:14	19 10:03 (B14)	18:15	20:20	33 07:30 (B22)	21:22	22:07		
15	08:41	09:35 (B14)	07:45	09:48 (B14)	06:34	06:12	06:58 (B22)	05:03	04:26		
	16:10	26 10:01 (B14)	17:17	11 09:59 (B14)	18:18	20:22	32 07:30 (B22)	21:24	22:07		
16	08:40	09:35 (B14)	07:43		06:32	06:09	06:57 (B22)	05:01	04:26		
	16:12	28 10:03 (B14)	17:19		18:20	20:24	32 07:29 (B22)	21:25	22:08		
17	08:39	09:35 (B14)	07:40		06:29	06:07	06:57 (B22)	04:59	04:25		
	16:14	30 10:05 (B14)	17:21		18:22	20:26	32 07:29 (B22)	21:27	22:08		
18	08:37	09:34 (B14)	07:38		06:26	06:04	06:57 (B22)	04:57	04:25		
	16:16	31 10:05 (B14)	17:23		18:24	20:28	31 07:28 (B22)	21:29	22:09		
19	08:36	09:34 (B14)	07:36		06:24	06:02	06:58 (B22)	04:55	04:25		
	16:18	32 10:06 (B14)	17:26		18:26	20:30	30 07:28 (B22)	21:31	22:09		
20	08:35	09:34 (B14)	07:33		06:21	05:59	06:59 (B22)	04:53	04:25		
	16:20	34 10:08 (B14)	17:28		18:28	20:33	28 07:27 (B22)	21:33	22:10		
21	08:33	09:33 (B14)	07:31		06:18	05:57	06:59 (B22)	04:52	04:25		
	16:22	35 10:08 (B14)	17:30		18:30	20:35	26 07:25 (B22)	21:35	22:10		
22	08:32	09:33 (B14)	07:28		06:16	05:54	07:00 (B22)	04:50	04:26		
	16:24	36 10:09 (B14)	17:32		18:32	20:37	24 07:24 (B22)	21:37	22:10		
23	08:30	09:32 (B14)	07:26		06:13	05:52	07:00 (B22)	04:48	04:26		
	16:26	38 10:10 (B14)	17:34		18:34	20:39	22 07:22 (B22)	21:38	22:10		
24	08:29	09:33 (B14)	07:23		06:10	05:49	07:02 (B22)	04:47	04:26		
	16:28	38 10:11 (B14)	17:37		18:36	20:41	18 07:20 (B22)	21:40	22:10		
25	08:27	09:00 (B24)	07:21		06:08	05:47	07:05 (B22)	04:45	04:26		
	16:30	42 10:12 (B14)	17:39		18:38	20:43	13 07:18 (B22)	21:42	22:10		
26	08:26	08:58 (B24)	07:18		06:05	05:44	07:09 (B22)	04:44	04:27		
	16:32	47 10:12 (B14)	17:41		18:41	20:45	3 07:12 (B22)	21:43	22:10		
27	08:24	08:56 (B24)	07:16		06:02	05:42		04:42	04:27		
	16:34	51 10:13 (B14)	17:43		18:43	20:47		21:45	22:10		
28	08:22	08:54 (B24)	07:13		05:59	05:40		04:41	04:28		
	16:37	55 10:13 (B14)	17:45		18:45	20:49		21:47	22:10		
29	08:20	08:52 (B24)			06:57	05:37		04:40	04:29		
	16:39	58 10:13 (B14)			19:47	20:51		21:48	22:10		
30	08:18	08:51 (B24)			06:54	05:35		04:38	04:29		
	16:41	61 10:14 (B14)			19:49	20:53		21:50	22:09		
31	08:17	08:50 (B24)			06:51			04:37			
	16:43	63 10:14 (B14)			19:51			21:51			
Potential sun hours	235		266		366	426		508	529		
Total, worst case	806		738				579				
Sun reduction	0.13		0.20				0.50				
Oper. time red.	0.94		0.94				0.94				
Wind dir. red.	0.60		0.60				0.66				
Total reduction	0.07		0.11				0.30				
Total, real	59		82			175					

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:58 (B22)	07:17	07:23
	22:09	21:28	20:14	18:54	16:36	08:22 (B24)
2	04:31	05:18	06:19	07:19	07:25	08:21 (B24)
	22:09	21:26	20:11	18:51	16:34	08:26
3	04:32	05:20	06:21	07:21	07:27	08:21 (B24)
	22:08	21:24	20:09	18:48	16:32	08:28
4	04:33	05:21	06:23	07:23	07:29	08:20 (B24)
	22:07	21:22	20:06	18:46	16:29	08:29
5	04:34	05:23	06:25	07:25	07:31	08:19 (B24)
	22:07	21:20	20:03	18:43	16:27	08:31
6	04:35	05:25	06:27	07:27	07:33	08:20 (B24)
	22:06	21:17	20:01	18:40	16:25	08:32
7	04:36	05:27	06:29	07:30	07:36	08:19 (B24)
	22:05	21:15	19:58	18:38	16:23	08:34
8	04:37	05:29	06:31	07:32	07:38	08:19 (B24)
	22:04	21:13	19:55	18:35	16:21	08:35
9	04:38	05:31	06:33	07:34	07:40	08:20 (B24)
	22:03	21:11	19:53	18:32	16:19	08:37
10	04:39	05:33	06:35	07:36	07:42	08:19 (B24)
	22:02	21:08	19:50	18:30	16:17	08:39
11	04:41	05:35	06:37	07:38	07:44	08:21 (B24)
	22:01	21:06	19:47	18:27	16:15	08:39
12	04:42	05:37	06:39	07:40	07:46	08:19 (B24)
	22:00	21:04	19:45	18:25	16:13	08:40
13	04:43	05:39	06:41	07:42	07:49	08:22 (B24)
	21:59	21:02	19:42	18:22	16:11	08:42
14	04:45	05:41	06:43	07:44	07:51	08:24 (B24)
	21:58	20:59	19:39	18:20	16:09	08:43
15	04:46	05:43	06:45	07:46	07:53	08:25 (B24)
	21:57	20:57	19:37	18:17	16:08	08:44
16	04:48	05:45	06:47	07:48	07:55	08:26 (B24)
	21:55	20:54	19:34	18:14	16:06	08:45
17	04:49	05:47	06:49	07:50	07:57	08:28 (B24)
	21:54	20:52	19:31	18:12	16:04	08:46
18	04:51	05:49	06:51	07:52	07:59	08:30 (B24)
	21:52	20:50	19:29	18:09	16:02	08:47
19	04:53	05:51	06:53	07:55	08:01	08:32 (B24)
	21:51	20:47	19:26	18:07	16:01	08:48
20	04:54	05:53	06:55	07:57	08:03	08:34 (B24)
	21:49	20:45	19:23	18:04	15:59	08:49
21	04:56	05:55	06:57	07:59	08:05	08:36 (B24)
	21:48	20:42	19:21	18:02	15:58	08:50
22	04:58	05:57	06:59	08:01	08:07	08:38 (B24)
	21:46	20:40	19:18	18:00	15:56	08:49
23	04:59	05:59	07:01	08:03	08:09	08:40
	21:45	20:37	19:15	17:57	15:55	08:50
24	05:01	06:01	07:03	08:05	08:11	08:42 (B24)
	21:43	20:35	19:12	17:55	15:53	08:51
25	05:03	06:03	07:05	08:07	08:13	08:44 (B24)
	21:41	20:32	19:10	17:52	15:52	08:50
26	05:05	06:05	07:07	08:09	08:15	08:46 (B24)
	21:39	20:30	19:07	17:50	15:51	08:51
27	05:06	06:07	07:09	08:11	08:17	08:48 (B24)
	21:38	20:27	19:04	17:48	15:49	08:51
28	05:08	06:09	07:11	08:13	08:19	08:49 (B24)
	21:36	20:24	19:02	17:46	15:48	08:51
29	05:10	06:11	07:13	08:15	08:21	08:49 (B24)
	21:34	20:22	18:59	17:43	15:47	08:51
30	05:12	06:13	07:15	08:17	08:23	08:49 (B24)
	21:32	20:19	18:56	17:41	15:46	08:51
31	05:14	06:15	07:17	08:19	08:25	08:49 (B24)
	21:30	20:17	18:54	17:38	15:45	08:51
Potential sun hours	529	469	385	324	247	216
Total, worst case		397	191	144	1377	38
Sun reduction		0.50	0.43	0.26	0.08	0.07
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.66	0.66	0.60	0.60	0.61
Total reduction		0.30	0.26	0.14	0.05	0.04
Total, real		119	49	21	63	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 59	08:45 (B24) 10:02 (B14)	07:11 17:48	06:49 19:53	05:33 20:55 8
2	08:50 15:49	08:13 16:48 63	08:43 (B24) 10:03 (B14)	07:08 17:50	06:46 19:55	05:30 20:57
3	08:50 15:51	08:11 16:50 64	08:43 (B24) 10:03 (B14)	07:06 17:52	06:43 19:57	05:28 21:00
4	08:50 15:52	08:09 16:52 66	08:42 (B24) 10:04 (B14)	07:03 17:54	06:41 19:59	05:26 21:02
5	08:49 15:53	08:07 16:54 67	08:42 (B24) 10:04 (B14)	07:01 17:56	06:38 20:01	05:23 21:04
6	08:49 15:55	08:05 16:56 67	08:41 (B24) 10:03 (B14)	06:58 17:58	06:35 20:03	05:21 21:06
7	08:48 15:56	08:03 16:59 67	08:42 (B24) 10:04 (B14)	06:55 18:01	06:33 20:06	05:19 21:08
8	08:48 15:58	08:01 17:01 67	08:42 (B24) 10:04 (B14)	06:53 18:03	06:30 20:08	05:17 21:10
9	08:47 16:00	07:58 17:03 65	08:42 (B24) 10:03 (B14)	06:50 18:05	06:28 20:10 12	05:15 21:12
10	08:46 16:01	07:56 17:05 64	08:43 (B24) 10:03 (B14)	06:47 18:07	06:25 20:12 18	05:13 21:14
11	08:45 16:03	07:54 17:08 62	08:43 (B24) 10:03 (B14)	06:45 18:09	06:22 20:14 22	05:11 21:16
12	08:44 16:05	07:52 17:10 59	08:44 (B24) 10:02 (B14)	06:42 18:11	06:20 20:16 25	05:09 21:18
13	08:43 16:06	07:50 17:12 56	08:45 (B24) 10:01 (B14)	06:40 18:13	06:17 20:18 27	05:07 21:20
14	08:42 16:08	07:47 17:14 52	08:46 (B24) 10:00 (B14)	06:37 18:15	06:15 20:20 28	05:05 21:22
15	08:41 16:10	07:45 17:17 46	08:48 (B24) 09:59 (B14)	06:34 18:18	06:12 20:22 30	05:03 21:24
16	08:40 16:12	07:43 17:19 35	08:52 (B24) 09:58 (B14)	06:32 18:20	06:09 20:24 31	05:01 21:25
17	08:39 16:14	07:40 09:32 (B14) 17:21 28	06:29 09:28 (B14) 09:56 (B14)	06:07 18:22	06:07 20:26 31	04:59 21:27
18	08:37 16:16	07:38 09:30 (B14) 17:23 25	06:26 09:29 (B14) 09:54 (B14)	06:04 18:24	06:04 20:28 32	04:57 21:29
19	08:36 16:18	07:36 09:28 (B14) 17:26 20	06:24 09:32 (B14) 09:52 (B14)	06:02 18:26	06:02 20:30 32	04:55 21:31
20	08:35 16:20	07:33 09:28 (B14) 17:28 13	06:21 09:35 (B14) 09:48 (B14)	05:59 18:28	06:05 20:33 32	04:53 21:33
21	08:33 16:22	07:31 09:26 (B14) 17:30 26	06:18 09:52 (B14) 17:30	05:57 18:30	06:04 20:35 32	04:52 21:35
22	08:32 16:24	07:28 09:25 (B14) 17:32 28	06:16 18:32	05:54 20:37 31	06:04 21:37	04:50 22:10
23	08:30 16:26	07:26 09:24 (B14) 17:34 30	06:13 18:34	05:52 20:39 31	06:04 21:38	04:48 22:10
24	08:29 16:28	07:23 09:24 (B14) 17:37 32	06:10 18:36	05:49 20:41 30	06:04 21:40	04:47 22:10
25	08:27 16:30	07:21 09:24 (B14) 17:39 33	06:08 18:38	05:47 20:43 28	06:04 21:42	04:45 22:10
26	08:26 16:32	07:18 09:23 (B14) 17:41 35	06:05 18:41	05:44 20:45 26	06:04 21:43	04:44 22:10
27	08:24 16:34	07:16 09:22 (B14) 17:43 37	06:02 18:43	05:42 20:47 24	06:04 21:45	04:42 22:10
28	08:22 16:37	07:13 09:22 (B14) 17:45 38	05:59 18:45	05:40 20:49 22	06:04 21:47	04:41 22:10
29	08:20 16:39	07:11 08:52 (B24) 10:01 (B14)	05:57 19:47	05:37 20:51 18	06:04 21:48	04:40 22:10
30	08:18 16:41	07:09 08:50 (B24) 10:02 (B14)	05:54 19:49	05:35 20:53 14	06:04 21:50	04:38 22:09
31	08:17 16:43	07:07 08:48 (B24) 10:02 (B14)	05:51 19:51	05:33 20:53	06:04 21:51	04:37 22:09
Potential sun hours	235	266	366	426	508	529
Total, worst case	476	1045		576	8	
Sun reduction	0.13	0.20		0.50	0.57	
Oper. time red.	0.94	0.94		0.94	0.94	
Wind dir. red.	0.60	0.60		0.66	0.66	
Total reduction	0.07	0.11		0.30	0.34	
Total, real	35	116		174	3	

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	06:51 (B22) 18:54	07:17 16:36	07:23 16:36
2	04:31 22:08	05:18 21:26	06:19 20:11	06:53 (B22) 18:51	07:19 16:34	07:25 16:34
3	04:32 22:08	05:20 21:24	06:21 20:09	06:56 (B22) 18:48	07:21 16:32	07:27 16:32
4	04:33 22:07	05:22 21:22	06:23 20:06	07:08 (B22) 18:46	07:23 16:29	07:29 16:29
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	07:31 16:27
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	07:33 16:25
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	07:36 16:23
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	07:38 16:21
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	07:40 16:19
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	07:42 16:17
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	07:44 16:15
12	04:42 22:00	05:37 21:04	07:01 (B22) 19:45	06:39 18:25	07:46 16:13	07:46 16:13
13	04:43 21:59	05:39 21:02	06:58 (B22) 19:42	06:41 18:22	07:49 16:11	07:49 16:11
14	04:45 21:58	05:41 20:59	06:57 (B22) 19:39	06:43 18:20	07:51 16:09	07:51 16:09
15	04:46 21:57	05:43 20:57	06:55 (B22) 19:37	06:45 18:17	07:53 16:08	07:53 16:08
16	04:48 21:55	05:45 20:54	06:54 (B22) 19:34	06:47 18:14	07:55 16:06	07:55 16:06
17	04:49 21:54	05:47 20:52	06:53 (B22) 19:31	06:49 18:12	07:57 16:04	07:57 16:04
18	04:51 21:52	05:49 20:50	06:51 (B22) 19:29	06:51 18:09	07:59 16:02	07:59 16:02
19	04:53 21:51	05:51 20:47	06:50 (B22) 19:26	06:53 18:07	08:01 16:01	08:01 16:01
20	04:54 21:49	05:53 20:45	06:50 (B22) 19:23	06:55 18:04	08:03 15:59	08:03 15:59
21	04:56 21:48	05:55 20:42	06:49 (B22) 19:21	06:57 18:02	08:05 15:58	08:05 15:58
22	04:58 21:46	05:57 20:40	06:49 (B22) 19:18	06:59 18:00	08:07 15:56	08:07 15:56
23	04:59 21:45	05:59 20:37	06:49 (B22) 19:15	07:01 17:57	08:09 15:55	08:09 15:55
24	05:01 21:43	06:01 20:35	06:48 (B22) 19:12	07:03 17:55	08:11 15:53	08:11 15:53
25	05:03 21:41	06:03 20:32	06:48 (B22) 19:10	07:05 17:52	08:13 15:52	08:13 15:52
26	05:05 21:39	06:05 20:30	06:49 (B22) 19:07	07:07 17:50	08:15 15:51	08:15 15:51
27	05:06 21:38	06:07 20:27	06:48 (B22) 19:04	07:09 17:48	08:17 15:49	08:17 15:49
28	05:08 21:36	06:09 20:24	06:48 (B22) 19:02	07:11 17:46	08:19 15:48	08:19 15:48
29	05:10 21:34	06:11 20:22	06:49 (B22) 18:59	07:13 17:43	08:21 15:47	08:21 15:47
30	05:12 21:32	06:13 20:19	06:49 (B22) 18:56	07:15 17:41	08:23 15:46	08:23 15:46
31	05:14 21:30	06:15 20:17	06:50 (B22) 18:54	07:17 17:39	08:25 15:45	08:25 15:45
Potential sun hours	529	469	385	324	247	216
Total, worst case		545	52	409	1127	
Sun reduction		0.50	0.43	0.26	0.08	
Oper. time red.		0.94	0.94	0.94	0.94	
Wind dir. red.		0.66	0.66	0.60	0.60	
Total reduction		0.30	0.26	0.14	0.05	
Total, real		164	13	58	51	

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	08:12 17:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:54	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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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31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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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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		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
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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
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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	06:51 (B14) 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 (B14) 18:48	07:21 16:32	07:27 15:43
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17	08:39 16:12	07:40 17:19	06:29 18:20	06:07 20:24	04:59 21:25	04:26 22:08	04:50 21:55	05:47 20:54	06:49 19:34	07:50 18:15	07:57 16:06	08:46 15:38
18	08:38 16:14	07:38 17:21	06:26 18:22	06:04 20:26	04:57 21:27	04:25 22:08	04:51 21:54	05:49 20:52	06:51 19:31	07:53 18:12	07:59 16:04	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	06:59 (B14) 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 (B14) 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 (B14) 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 (B14) 19:07	08:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 (B14) 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 (B14) 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:07 17:47	05:57 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 (B14) 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:04 17:49	05:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 (B14) 18:56	08:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:02 17:51	05:52 18:51	05:34 20:55	04:37 21:51	04:30 22:10	05:14 20:17	06:15 20:17	07:15 (B14) 18:56	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				306				194	118			
Sun reduction				0.50				0.50	0.43			
Oper. time red.				0.94				0.94	0.94			
Wind dir. red.				0.66				0.66	0.66			
Total reduction				0.31				0.31	0.26			
Total, real				95				60	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

January			February			March			April			May			June		
1	08:51		09:58 (B14)	08:15	07:11				06:49		07:55 (B22)	05:33	04:36				
	15:48	31	10:29 (B14)	16:45	17:48				19:53	22	08:17 (B22)	20:55	21:53				
2	08:50		09:58 (B14)	08:13	07:08				06:46		07:56 (B22)	05:30	04:35				
	15:49	32	10:30 (B14)	16:48	17:50				19:55	18	08:14 (B22)	20:58	21:54				
3	08:50		09:58 (B14)	08:11	07:06				06:43		07:59 (B22)	05:28	04:34				
	15:51	32	10:30 (B14)	16:50	17:52				19:57	13	08:12 (B22)	21:00	21:55				
4	08:50		09:58 (B14)	08:09	07:03				06:41			05:26	04:33				
	15:52	32	10:30 (B14)	16:52	17:54				19:59			21:02	21:57				
5	08:49		09:59 (B14)	08:07	07:01				06:38			05:23	04:32				
	15:53	33	10:32 (B14)	16:54	17:56				20:01			21:04	21:58				
6	08:49		09:59 (B14)	08:05	06:58				06:35			05:21	04:31				
	15:55	33	10:32 (B14)	16:56	17:58				20:03			21:06	21:59				
7	08:48		10:00 (B14)	08:03	06:55				06:33			05:19	04:30				
	15:56	32	10:32 (B14)	16:59	18:01				20:06			21:08	22:00				
8	08:48		10:00 (B14)	08:01	06:53				06:30			05:17	04:29				
	15:58	33	10:33 (B14)	17:01	18:03				20:08			21:10	22:01				
9	08:47		10:00 (B14)	07:58	06:50				06:28			05:15	04:29				
	16:00	33	10:33 (B14)	17:03	18:05				20:10			21:12	22:02				
10	08:46		10:01 (B14)	07:56	06:47				06:25			05:13	04:28				
	16:01	33	10:34 (B14)	17:05	18:07				20:12			21:14	22:03				
11	08:45		10:01 (B14)	07:54	06:45				06:22			05:11	04:27				
	16:03	34	10:35 (B14)	17:08	18:09				20:14			21:16	22:04				
12	08:44		10:02 (B14)	07:52	06:42				06:20			05:09	04:27				
	16:05	33	10:35 (B14)	17:10	18:11				20:16			21:18	22:05				
13	08:43		10:01 (B14)	07:50	06:40				06:17			05:07	04:26				
	16:06	34	10:35 (B14)	17:12	18:13				20:18			21:20	22:06				
14	08:42		10:02 (B14)	07:47	06:37				06:15			05:05	04:26				
	16:08	34	10:36 (B14)	17:14	18:15				20:20			21:22	22:07				
15	08:41		10:02 (B14)	07:45	06:34			07:07 (B22)	06:12			05:03	04:26				
	16:10	33	10:35 (B14)	17:17	18:18	9	07:16 (B22)	20:22	21:24			22:07					
16	08:40		10:03 (B14)	07:43	06:32		07:03 (B22)	06:09	05:01			04:26					
	16:12	33	10:36 (B14)	17:19	18:20	16	07:19 (B22)	20:24	21:25			22:08					
17	08:39		10:04 (B14)	07:40	06:29		07:00 (B22)	06:07	04:59			04:25					
	16:14	33	10:37 (B14)	17:21	18:22	21	07:21 (B22)	20:26	21:27			22:08					
18	08:38		10:04 (B14)	07:38	06:26		06:58 (B22)	06:04	04:57			04:25					
	16:16	32	10:36 (B14)	17:23	18:24	24	07:22 (B22)	20:28	21:29			22:09					
19	08:36		10:04 (B14)	07:36	06:24		06:57 (B22)	06:02	04:55			04:25					
	16:18	32	10:36 (B14)	17:26	18:26	26	07:23 (B22)	20:30	21:31			22:09					
20	08:35		10:06 (B14)	07:33	06:21		06:55 (B22)	05:59	04:53			04:25					
	16:20	31	10:37 (B14)	17:28	18:28	29	07:24 (B22)	20:33	21:33			22:10					
21	08:33		10:06 (B14)	07:31	06:18		06:54 (B22)	05:57	04:52			04:25					
	16:22	30	10:36 (B14)	17:30	18:30	30	07:24 (B22)	20:35	21:35			22:10					
22	08:32		10:06 (B14)	07:28	06:16		06:54 (B22)	05:54	04:50			04:26					
	16:24	30	10:36 (B14)	17:32	18:32	31	07:25 (B22)	20:37	21:37			22:10					
23	08:30		10:07 (B14)	07:26	06:13		06:53 (B22)	05:52	04:48			04:26					
	16:26	28	10:35 (B14)	17:34	18:34	31	07:24 (B22)	20:39	21:38			22:10					
24	08:29		10:09 (B14)	07:23	06:10		06:52 (B22)	05:49	04:47			04:26					
	16:28	26	10:35 (B14)	17:37	18:36	32	07:24 (B22)	20:41	21:40			22:10					
25	08:27		10:10 (B14)	07:21	06:08		06:52 (B22)	05:47	04:45			04:26					
	16:30	25	10:35 (B14)	17:39	18:38	32	07:24 (B22)	20:43	21:42			22:10					
26	08:26		10:11 (B14)	07:18	06:05		06:52 (B22)	05:44	04:44			04:27					
	16:32	23	10:34 (B14)	17:41	18:41	32	07:24 (B22)	20:45	21:43			22:10					
27	08:24		10:13 (B14)	07:16	06:02		06:52 (B22)	05:42	04:42			04:27					
	16:34	20	10:33 (B14)	17:43	18:43	31	07:23 (B22)	20:47	21:45			22:10					
28	08:22		10:15 (B14)	07:13	05:59		06:52 (B22)	05:40	04:41			04:28					
	16:37	16	10:31 (B14)	17:45	18:45	31	07:23 (B22)	20:49	21:47			22:10					
29	08:20		10:17 (B14)		06:57		07:52 (B22)	05:37	04:40			04:29					
	16:39	12	10:29 (B14)		19:47	29	08:21 (B22)	20:51	21:48			22:10					
30	08:19				06:54		07:53 (B22)	05:35	04:38			04:29					
	16:41				19:49	27	08:20 (B22)	20:53	21:50			22:09					
31	08:17				06:51		07:54 (B22)		04:37								
	16:43				19:51	25	08:19 (B22)		21:51								
Potential sun hours	235			266	366			426				508	529				
Total, worst case		863			456				53								
Sun reduction		0.13			0.41				0.50								
Oper. time red.		0.94			0.94				0.94								
Wind dir. red.		0.61			0.64				0.64								
Total reduction		0.08			0.24				0.30								
Total, real		65			111				16								

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
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
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:47 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:48 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:49 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:50 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:51 15:39
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:52 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:53 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:54 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 15:51	08:55 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:48	08:17 15:49	08:56 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:46	08:19 15:48	08:57 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:44	08:21 15:47	08:58 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:42	08:23 15:46	08:59 15:46
31	05:14 21:30	06:15 20:17		08:19 17:40	08:25 15:45	09:00 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			515		505	962
Sun reduction			0.43		0.08	0.07
Oper. time red.			0.94		0.94	0.94
Wind dir. red.			0.64		0.61	0.61
Total reduction			0.25		0.05	0.04
Total, real			130		24	38

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	06:18	07:17	07:23	08:24
	15:48	16:46	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	06:20	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	06:22	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	15:44
4	08:50	08:09	07:03	06:41	05:26	04:33	04:33	05:22	06:24	07:24	07:29	08:29
	15:52	16:52	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:46	16:30	15:43
5	08:49	08:07	07:01	06:38	05:24	04:32	04:34	05:24	06:25	07:26	07:31	08:31
	15:54	16:54	17:56	20:01	21:04	21:58	22:07	21:20	20:04	18:43	16:28	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	18:41	16:25	15:41
7	08:48	08:03	06:55	06:33	05:19	04:30	04:36	05:28	06:29	07:30	07:36	08:34
	15:57	16:59	18:01	20:06	21:08	22:00	22:05	21:15	19:58	18:38	16:23	15:41
8	08:47	08:01	06:53	06:30	05:17	04:30	04:37	05:30	06:31	07:32	07:38	08:35
	15:58	17:01	18:03	20:08	21:10	22:01	22:04	21:13	19:56	18:35	16:21	15:40
9	08:47	07:58	06:50	06:28	05:15	04:29	04:38	05:32	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	06:23	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	16:12	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	08:45
	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	07:53	07:59	08:46
	16:16	17:24	18:24	20:28	21:29	22:09	21:52	20:50	19:29	18:10	16:03	15:38
19	08:36	07:36	06:24	06:02	04:55	04:26	04:53	05:51	06:53	07:55	08:01	08:47
	16:18	17:26	18:26	20:31	21:31	22:09	21:51	20:47	19:26	18:07	16:01	15:39
20	08:35	07:33	06:21	05:59	04:54	04:26	04:54	05:53	06:55	07:57	08:03	08:48
	16:20	17:28	18:28	20:33	21:33	22:10	21:49	20:45	19:23	18:05	15:59	15:39
21	08:33	07:31	06:18	05:57	04:52	04:26	04:56	05:55	06:57	07:59	08:05	08:48
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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	05:00	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
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	16:28	17:37	18:36	20:41	21:40	22:10	21:43	20:35	19:13	17:55	15:54	15:41
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	16:30	17:39	18:39	20:43	21:42	22:10	21:41	20:32	19:10	16:52	15:52	15:42
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	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	06:08	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	06:10	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	06:12	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	06:14	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	06:16		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)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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		07:10 (B1)	04:36
	15:48	16:45	17:47		19:53		20:55	21	07:31 (B1)	21:53
2	08:50	08:13	07:08		06:46		05:30		07:12 (B1)	04:35
	15:49	16:47	17:50		19:55		20:57	17	07:29 (B1)	21:54
3	08:50	08:11	07:06		06:43		05:28		07:16 (B1)	04:34
	15:51	16:50	17:52		19:57		21:00	9	07:25 (B1)	21:55
4	08:50	08:09	07:03		06:41		05:26			04:33
	15:52	16:52	17:54		19:59		21:02			21:57
5	08:49	08:07	07:00		06:38		05:23			04:32
	15:53	16:54	17:56		20:01	15	07:35 (B1)			21:58
6	08:49	08:05	06:58		06:35		05:21			04:31
	15:55	16:56	17:58		20:03	21	07:38 (B1)			21:59
7	08:48	08:03	06:55		06:33		05:19			04:30
	15:56	16:59	18:00		20:05	26	07:40 (B1)			22:00
8	08:48	08:00	06:53		06:30		05:17			04:29
	15:58	17:01	18:03	6	07:24 (B4)	29	07:41 (B1)			22:01
9	08:47	07:58	06:50		06:27		05:15			04:28
	15:59	17:03	18:05	11	07:27 (B4)	31	07:42 (B1)			22:02
10	08:46	07:56	06:47		06:25		05:12			04:28
	16:01	17:05	18:07	15	07:28 (B4)	34	07:43 (B1)			22:03
11	08:45	07:54	06:45		06:22		05:10			04:27
	16:03	17:08	18:09	19	07:29 (B4)	36	07:44 (B1)			22:04
12	08:44	07:52	06:42		06:20		05:08			04:27
	16:04	17:10	18:11	20	07:30 (B4)	37	07:44 (B1)			22:05
13	08:43	07:49	06:39		06:17		05:06			04:26
	16:06	17:12	18:13	21	07:30 (B4)	39	07:45 (B1)			22:06
14	08:42	07:47	06:37		06:14		05:04			04:26
	16:08	17:14	18:15	21	07:29 (B4)	40	07:45 (B1)			22:07
15	08:41	07:45	06:34		06:12		05:02			04:26
	16:10	17:17	18:17	22	07:29 (B4)	40	07:45 (B1)			22:07
16	08:40	07:43	06:32		06:09		05:01			04:25
	16:12	17:19	18:20	21	07:29 (B4)	41	07:45 (B1)			22:08
17	08:39	07:40	06:29		06:07		04:59			04:25
	16:14	17:21	18:22	20	07:28 (B4)	41	07:45 (B1)			22:08
18	08:37	07:38	06:26		06:04		04:57			04:25
	16:16	17:23	18:24	18	07:26 (B4)	41	07:44 (B1)			22:09
19	08:36	07:35	06:23		06:02		04:55			04:25
	16:18	17:25	18:26	16	07:26 (B4)	41	07:44 (B1)			22:09
20	08:35	07:33	06:21		05:59		04:53			04:25
	16:20	17:28	18:28	12	07:23 (B4)	41	07:43 (B1)			22:10
21	08:33	07:31	06:18		05:57		04:52			04:25
	16:22	17:30	18:30	5	07:19 (B4)	40	07:43 (B1)			22:10
22	08:32	07:28	06:15		05:54		04:50			04:25
	16:24	17:32	18:32		20:37	40	07:43 (B1)			22:10
23	08:30	07:26	06:13		05:52		04:48			04:26
	16:26	17:34	18:34		20:39	39	07:42 (B1)			22:10
24	08:29	07:23	06:10		05:49		04:47			04:26
	16:28	17:37	18:36		20:41	37	07:41 (B1)			22:10
25	08:27	07:21	06:07		05:47		04:45			04:26
	16:30	17:39	18:38		20:43	37	07:41 (B1)			22:10
26	08:26	07:18	06:05		05:44		04:44			04:27
	16:32	17:41	18:40		20:45	35	07:39 (B1)			22:10
27	08:24	07:16	06:02		05:42		04:42			04:27
	16:34	17:43	18:43		20:47	33	07:38 (B1)			22:10
28	08:22	07:13	05:59		05:39		04:41			04:28
	16:36	17:45	18:45		20:49	31	07:37 (B1)			22:10
29	08:20		06:57		05:37		04:39			04:28
	16:39		19:47		20:51	28	07:36 (B1)			22:10
30	08:18		06:54		05:35		04:38			04:29
	16:41		19:49		20:53	25	07:33 (B1)			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			227		898			47		
Sun reduction			0.41		0.50			0.57		
Oper. time red.			0.94		0.94			0.94		
Wind dir. red.			0.62		0.66			0.66		
Total reduction			0.24		0.31			0.35		
Total, real			55		278			17		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:07 (B1)	07:17	07:49 (B4)
	22:09	21:28	20:14	18:54	20	08:09 (B4)
2	04:31	05:17	06:19	07:08 (B1)	07:19	07:49 (B4)
	22:09	21:26	20:11	18:51	19	08:08 (B4)
3	04:32	05:19	06:21	07:09 (B1)	07:21	07:50 (B4)
	22:08	21:24	20:09	18:48	17	08:07 (B4)
4	04:33	05:21	06:23	07:10 (B1)	07:23	07:52 (B4)
	22:07	21:22	20:06	18:46	13	08:05 (B4)
5	04:33	05:23	06:25	07:10 (B1)	07:25	07:54 (B4)
	22:07	21:19	20:03	18:43	9	08:03 (B4)
6	04:35	05:25	06:27	07:12 (B1)	07:27	07:56 (B4)
	22:06	21:17	20:01	18:40		16:25
7	04:36	05:27	06:29	07:15 (B1)	07:29	07:56 (B4)
	22:05	21:15	19:58	18:38		16:23
8	04:37	05:29	06:31	07:21 (B1)	07:32	07:58 (B4)
	22:04	21:13	19:55	18:35		16:21
9	04:38	05:31	06:33	07:24 (B1)	07:34	07:59 (B4)
	22:03	21:11	19:53	18:32		16:19
10	04:39	05:33	06:35	07:25 (B1)	07:36	07:59 (B4)
	22:02	21:08	19:50	18:30		16:17
11	04:41	05:35	06:37	07:26 (B1)	07:38	07:59 (B4)
	22:01	21:06	19:47	18:27		16:15
12	04:42	05:37	06:39	07:27 (B1)	07:40	07:59 (B4)
	22:00	21:04	19:45	18:25		16:13
13	04:43	05:39	06:41	07:28 (B1)	07:42	07:59 (B4)
	21:59	21:01	19:42	18:22		16:11
14	04:45	05:41	06:43	07:29 (B1)	07:44	07:59 (B4)
	21:58	20:59	19:39	18:19		16:09
15	04:46	05:43	06:45	07:30 (B1)	07:46	07:59 (B4)
	21:57	20:57	19:37	18:17		16:07
16	04:48	05:45	06:47	07:31 (B1)	07:48	07:59 (B4)
	21:55	20:54	19:34	18:14		16:06
17	04:49	05:47	06:49	07:32 (B1)	07:50	07:59 (B4)
	21:54	20:52	19:31	18:12		16:04
18	04:51	05:49	06:51	07:33 (B1)	07:52	07:59 (B4)
	21:52	20:50	19:29	18:09		16:02
19	04:52	05:51	06:53	07:34 (B1)	07:55	07:59 (B4)
	21:51	20:47	19:26	18:07		16:01
20	04:54	05:53	06:55	07:35 (B1)	07:57	07:59 (B4)
	21:49	20:45	19:23	18:04		15:59
21	04:56	05:55	06:57	07:36 (B1)	07:59	07:59 (B4)
	21:48	20:42	19:20	18:02		15:58
22	04:57	05:57	06:59	07:37 (B1)	08:01	07:59 (B4)
	21:46	20:40	19:18	17:59		15:56
23	04:59	05:59	07:01	07:38 (B1)	08:03	07:59 (B4)
	21:45	20:37	19:15	17:57		15:55
24	05:01	06:01	07:03	07:39 (B1)	08:05	07:59 (B4)
	21:43	20:35	19:12	17:55		15:53
25	05:03	06:03	07:05	07:40 (B1)	08:07	07:59 (B4)
	21:41	20:32	19:10	17:52		15:52
26	05:04	06:05	07:07	07:41 (B1)	08:09	07:59 (B4)
	21:39	20:29	19:07	17:50		15:51
27	05:06	06:07	07:09	07:42 (B1)	08:11	07:59 (B4)
	21:38	20:27	19:04	17:47		15:49
28	05:08	06:09	07:11	07:43 (B1)	08:13	07:59 (B4)
	21:36	20:24	19:02	17:45		15:48
29	05:10	06:11	07:13	07:44 (B1)	08:15	07:59 (B4)
	21:34	20:22	18:59	17:43		15:47
30	05:12	06:13	07:15	07:45 (B1)	08:17	07:59 (B4)
	21:32	20:19	18:56	17:41		15:46
31	05:14	06:15	07:17	07:46 (B1)	08:19	07:59 (B4)
	21:30	20:17	18:54	17:39		15:45
Potential sun hours	529	469	385	324	247	216
Total, worst case		759	344	78		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.66	0.64	0.62		
Total reduction		0.31	0.26	0.15		
Total, real		234	89	12		

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:51	08:15	09:38 (B22)	07:11	06:49	05:33
	15:48	16:45	10:19 (B22)	17:48	19:53	20:55
2	08:50	08:13	09:38 (B22)	07:08	06:46	05:30
	15:49	16:47	10:19 (B22)	17:50	19:55	20:57
3	08:50	08:11	09:38 (B22)	07:06	06:43	05:28
	15:51	16:50	10:20 (B22)	17:52	19:57	21:00
4	08:50	08:09	09:39 (B22)	07:03	06:41	05:26
	15:52	16:52	10:20 (B22)	17:54	19:59	21:02
5	08:49	08:07	09:40 (B22)	07:00	06:38	05:23
	15:53	16:54	10:20 (B22)	17:56	20:01	21:04
6	08:49	08:05	09:39 (B22)	06:58	06:35	05:21
	15:55	16:56	10:19 (B22)	17:58	20:03	21:06
7	08:48	08:03	09:40 (B22)	06:55	06:33	05:19
	15:56	16:59	10:19 (B22)	18:00	20:05	21:08
8	08:48	08:01	09:41 (B22)	06:53	06:30	05:17
	15:58	17:01	10:18 (B22)	18:03	20:08	21:10
9	08:47	07:58	09:41 (B22)	06:50	06:28	05:15
	15:59	17:03	10:17 (B22)	18:05	20:10	21:12
10	08:46	09:50 (B22)	07:56	09:42 (B22)	06:47	06:25
	16:01	09:55 (B22)	17:05	10:17 (B22)	18:07	20:12
11	08:45	09:47 (B22)	07:54	09:44 (B22)	06:45	06:22
	16:03	09:59 (B22)	17:08	10:16 (B22)	18:09	20:14
12	08:44	09:46 (B22)	07:52	09:44 (B22)	06:42	06:20
	16:04	10:01 (B22)	17:10	10:14 (B22)	18:11	20:16
13	08:43	09:44 (B22)	07:50	09:46 (B22)	06:40	06:17
	16:06	10:03 (B22)	17:12	10:13 (B22)	18:13	20:18
14	08:42	09:43 (B22)	07:47	09:48 (B22)	06:37	06:14
	16:08	10:05 (B22)	17:14	10:10 (B22)	18:15	20:20
15	08:41	09:42 (B22)	07:45	09:51 (B22)	06:34	06:12
	16:10	10:06 (B22)	17:17	10:08 (B22)	18:18	20:22
16	08:40	09:42 (B22)	07:43	09:54 (B22)	06:32	06:09
	16:12	10:07 (B22)	17:19	10:03 (B22)	18:20	20:24
17	08:39	09:42 (B22)	07:40		06:29	06:07
	16:14	10:09 (B22)	17:21		18:22	20:26
18	08:37	09:41 (B22)	07:38		06:26	06:04
	16:16	10:10 (B22)	17:23		18:24	20:28
19	08:36	09:40 (B22)	07:36		06:24	06:02
	16:18	10:11 (B22)	17:26		18:26	20:30
20	08:35	09:40 (B22)	07:33		06:21	05:59
	16:20	10:13 (B22)	17:28		18:28	20:33
21	08:33	09:39 (B22)	07:31		06:18	05:57
	16:22	10:13 (B22)	17:30		18:30	20:35
22	08:32	09:39 (B22)	07:28		06:16	05:54
	16:24	10:14 (B22)	17:32		18:32	20:37
23	08:30	09:38 (B22)	07:26		06:13	05:52
	16:26	10:15 (B22)	17:34		18:34	20:39
24	08:29	09:39 (B22)	07:23		06:10	05:49
	16:28	10:16 (B22)	17:37		18:36	20:41
25	08:27	09:38 (B22)	07:21		06:07	05:47
	16:30	10:17 (B22)	17:39		18:38	20:43
26	08:26	09:38 (B22)	07:18		06:05	05:44
	16:32	10:17 (B22)	17:41		18:41	20:45
27	08:24	09:38 (B22)	07:16		06:02	05:42
	16:34	10:18 (B22)	17:43		18:43	20:47
28	08:22	09:38 (B22)	07:13		05:59	05:40
	16:36	10:18 (B22)	17:45		18:45	20:49
29	08:20	09:38 (B22)			06:57	05:37
	16:39	10:19 (B22)			19:47	20:51
30	08:18	09:38 (B22)			06:54	05:35
	16:41	10:19 (B22)			19:49	20:53
31	08:17	09:38 (B22)			06:51	05:33
	16:43	10:20 (B22)			19:51	21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case	667	529				
Sun reduction	0.13	0.20				
Oper. time red.	0.94	0.94				
Wind dir. red.	0.61	0.61				
Total reduction	0.08	0.12				
Total, real	51	61				

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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	09:12 (B22) 09:46 (B22)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:11 (B22) 09:47 (B22)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:11 (B22) 09:48 (B22)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:10 (B22) 09:48 (B22)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:09 (B22) 09:49 (B22)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:09 (B22) 09:50 (B22)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:09 (B22) 09:49 (B22)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:09 (B22) 09:50 (B22)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:09 (B22) 09:50 (B22)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:09 (B22) 09:51 (B22)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:09 (B22) 09:51 (B22)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:09 (B22) 09:50 (B22)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:10 (B22) 09:51 (B22)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:10 (B22) 09:50 (B22)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:10 (B22) 09:50 (B22)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:11 (B22) 09:50 (B22)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:11 (B22) 09:50 (B22)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:13 (B22) 09:50 (B22)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:13 (B22) 09:50 (B22)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:14 (B22) 09:49 (B22)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:14 (B22) 09:48 (B22)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:16 (B22) 09:49 (B22)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:17 (B22) 09:48 (B22)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:18 (B22) 09:47 (B22)
25	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	09:19 (B22) 09:46 (B22)
26	05:04 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	09:20 (B22) 09:46 (B22)
27	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	09:22 (B22) 09:46 (B22)
28	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	09:23 (B22) 09:45 (B22)
29	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	09:25 (B22) 09:44 (B22)
30	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	09:27 (B22) 09:43 (B22)
31	05:14 21:30	06:15 20:17		07:20 16:38	08:24 15:45	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case				145	1042	17
Sun reduction				0.26	0.08	0.07
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.61	0.61	0.61
Total reduction				0.15	0.05	0.04
Total, real				21	49	1

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	07:11 17:47	05:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	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	04:38 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	07:11 17:51	05:52 19:51	05:42 21:51	04:37 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:21 16:38	07:21 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												
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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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
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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		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April	May	June
1	08:51		10:16 (B1)	08:15		07:11				06:49	05:32	04:36
	15:48	24	10:40 (B1)	16:45		17:47				19:53	20:55	21:53
2	08:51		10:17 (B1)	08:13		07:08				06:46	05:30	04:34
	15:49	23	10:40 (B1)	16:47		17:50				19:55	20:57	21:54
3	08:50		10:17 (B1)	08:11		07:06			07:36 (B17)	06:43	05:28	04:33
	15:50	23	10:40 (B1)	16:50		17:52		9	07:45 (B17)	19:57	21:00	21:55
4	08:50		10:18 (B1)	08:09		07:03			07:32 (B17)	06:41	05:25	04:32
	15:52	22	10:40 (B1)	16:52		17:54		16	07:48 (B17)	19:59	21:02	21:57
5	08:49		10:19 (B1)	08:07		07:00			07:30 (B17)	06:38	05:23	04:31
	15:53	22	10:41 (B1)	16:54		17:56		19	07:49 (B17)	20:01	21:04	21:58
6	08:49		10:20 (B1)	08:05		06:58			07:29 (B17)	06:35	05:21	04:31
	15:55	20	10:40 (B1)	16:56		17:58		22	07:51 (B17)	20:03	21:06	21:59
7	08:48		10:21 (B1)	08:03		06:55			07:27 (B17)	06:33	05:19	04:30
	15:56	19	10:40 (B1)	16:58		18:00		25	07:52 (B17)	20:05	21:08	22:00
8	08:48		10:22 (B1)	08:01		06:53			07:25 (B17)	06:30	05:17	04:29
	15:58	18	10:40 (B1)	17:01		18:03		27	07:52 (B17)	20:08	21:10	22:01
9	08:47		10:23 (B1)	07:58		06:50			07:25 (B17)	06:27	05:15	04:28
	15:59	17	10:40 (B1)	17:03		18:05		28	07:53 (B17)	20:10	21:12	22:02
10	08:46		10:24 (B1)	07:56		06:47			07:24 (B17)	06:25	05:12	04:28
	16:01	15	10:39 (B1)	17:05		18:07		29	07:53 (B17)	20:12	21:14	22:03
11	08:45		10:26 (B1)	07:54		06:45			07:24 (B17)	06:22	05:10	04:27
	16:03	13	10:39 (B1)	17:07		18:09		28	07:52 (B17)	20:14	21:16	22:04
12	08:44		10:28 (B1)	07:52		06:42			07:24 (B17)	06:20	05:08	04:27
	16:04	10	10:38 (B1)	17:10		18:11		29	07:53 (B17)	20:16	21:18	22:05
13	08:43		10:29 (B1)	07:49		06:39			07:23 (B17)	06:17	05:06	04:26
	16:06	7	10:36 (B1)	17:12		18:13		29	07:52 (B17)	20:18	21:20	22:06
14	08:42			07:47		06:37			07:23 (B17)	06:14	05:04	04:26
	16:08			17:14		18:15		28	07:51 (B17)	20:20	21:22	22:07
15	08:41			07:45		06:34			07:23 (B17)	06:12	05:02	04:25
	16:10			17:16		18:17		27	07:50 (B17)	20:22	21:24	22:07
16	08:40			07:43		06:31			07:24 (B17)	06:09	05:00	04:25
	16:12			17:19		18:20		26	07:50 (B17)	20:24	21:26	22:08
17	08:39			07:40		06:29			07:24 (B17)	06:07	04:59	04:25
	16:14			17:21		18:22		24	07:48 (B17)	20:26	21:27	22:09
18	08:38			07:38		06:26			07:25 (B17)	06:04	04:57	04:25
	16:15			17:23		18:24		22	07:47 (B17)	20:28	21:29	22:09
19	08:36			07:35		06:23			07:27 (B17)	06:02	04:55	04:25
	16:17			17:25		18:26		18	07:45 (B17)	20:30	21:31	22:09
20	08:35			07:33		06:21			07:29 (B17)	05:59	04:53	04:25
	16:19			17:28		18:28		13	07:42 (B17)	20:33	21:33	22:10
21	08:33			07:31		06:18			07:34 (B17)	05:57	04:51	04:25
	16:21			17:30		18:30		2	07:36 (B17)	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		233				421						
Sun reduction		0.13				0.41						
Oper. time red.		0.94				0.94						
Wind dir. red.		0.61				0.62						
Total reduction		0.08				0.24						
Total, real		18				101						

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30	05:15	06:17	07:17	08:03 (B17)	07:23
	22:09	21:28	20:14	18:54	29 08:32 (B17)	16:36
2	04:31	05:17	06:19	07:19	08:03 (B17)	07:25
	22:09	21:26	20:11	18:51	29 08:32 (B17)	16:34
3	04:31	05:19	06:21	07:21	08:02 (B17)	07:27
	22:08	21:24	20:09	18:48	29 08:31 (B17)	16:31
4	04:32	05:21	06:23	07:23	08:02 (B17)	07:29
	22:07	21:22	20:06	18:46	28 08:30 (B17)	16:29
5	04:33	05:23	06:25	07:25	08:02 (B17)	07:31
	22:07	21:20	20:03	18:43	27 08:29 (B17)	16:27
6	04:34	05:25	06:27	07:27	08:03 (B17)	07:33
	22:06	21:17	20:01	18:40	25 08:28 (B17)	16:25
7	04:36	05:27	06:29	07:29	08:03 (B17)	07:36
	22:05	21:15	19:58	18:38	24 08:27 (B17)	16:23
8	04:37	05:29	06:31	07:32	08:04 (B17)	07:38
	22:04	21:13	19:55	18:35	21 08:25 (B17)	16:21
9	04:38	05:31	06:33	07:34	08:06 (B17)	07:40
	22:03	21:11	19:53	18:32	18 08:24 (B17)	16:19
10	04:39	05:33	06:35	07:36	08:08 (B17)	07:42
	22:02	21:08	19:50	18:30	13 08:21 (B17)	16:17
11	04:40	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		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		16:07
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
	21:53	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
	21:50	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		15:57
22	04:57	05:57	06:59	08:01		08:07
	21:46	20:40	19:18	17:59		15:56
23	04:59	05:59	07:01	08:03		08:09
	21:45	20:37	19:15	11 08:25 (B17)		15:54
24	05:01	06:01	07:03	08:11 (B17)		08:11
	21:43	20:35	19:12	16 08:27 (B17)		15:53
25	05:02	06:03	07:05	08:08 (B17)		08:13
	21:41	20:32	19:10	21 08:29 (B17)		15:52
26	05:04	06:05	07:07	08:07 (B17)		08:15
	21:39	20:30	19:07	23 08:30 (B17)		15:50
27	05:06	06:07	07:09	08:06 (B17)		08:17
	21:38	20:27	19:04	26 08:32 (B17)		15:49
28	05:08	06:09	07:11	08:05 (B17)		08:19
	21:36	20:24	19:02	27 08:32 (B17)		15:48
29	05:10	06:11	07:13	08:04 (B17)		08:21
	21:34	20:22	18:59	28 08:32 (B17)	5 10:11 (B1)	15:47
30	05:12	06:13	07:15	08:03 (B17)	10 10:16 (B1)	15:44
	21:32	20:19	18:56	29 08:32 (B17)	10 10:09 (B1)	15:45
31	05:14	06:15		07:20		08:51
	21:30	20:17		16:38		15:46
Potential sun hours	529	469	385	324	247	216
Total, worst case			181	243	15	715
Sun reduction			0.43	0.26	0.08	0.07
Oper. time red.			0.94	0.94	0.94	0.94
Wind dir. red.			0.62	0.62	0.61	0.61
Total reduction			0.25	0.15	0.05	0.04
Total, real			45	37	1	29

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	07:37 (B1) 19:53	06:49 20:55	05:32 21:53	04:36 22:09	04:30 21:28	05:16 20:14	06:17 18:54	08:14 (B1) 16:36	07:23 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	07:35 (B1) 19:55	06:46 20:58	05:30 21:54	04:35 22:09	04:31 21:26	05:17 20:11	06:19 18:51	08:13 (B1) 16:34	07:25 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	07:35 (B1) 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	08:11 (B1) 16:31	07:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	07:34 (B1) 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:32 21:22	05:21 20:06	06:23 18:46	08:10 (B1) 16:29	07:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	07:33 (B1) 20:01	06:38 21:04	05:23 21:58	04:32 22:07	04:33 21:20	05:23 20:03	06:25 18:43	08:09 (B1) 16:27	07:31 15:41
6	08:49 15:55	08:05 16:56	06:58 17:58	07:33 (B1) 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	08:08 (B1) 16:25	07:33 15:41
7	08:48 15:56	08:03 16:59	06:55 18:00	07:32 (B1) 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	08:08 (B1) 16:23	07:36 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	07:32 (B1) 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	08:08 (B1) 16:21	07:38 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	07:33 (B1) 20:10	06:27 21:12	05:15 22:02	04:28 22:03	04:38 21:11	05:31 19:53	06:33 18:32	08:09 (B1) 16:19	07:40 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	07:33 (B1) 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	08:09 (B1) 16:17	07:42 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	07:33 (B1) 20:14	06:22 21:16	05:10 22:04	04:27 22:01	04:41 21:06	05:35 19:47	06:37 18:27	08:09 (B1) 16:15	07:44 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	07:35 (B1) 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	08:10 (B1) 16:13	07:46 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	07:36 (B1) 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	08:11 (B1) 16:11	07:49 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	07:38 (B1) 20:20	06:14 21:22	05:04 22:07	04:26 21:58	04:45 20:59	05:41 19:39	06:43 18:19	08:13 (B1) 16:09	07:51 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	07:47 (B1) 20:22	06:12 21:24	05:02 22:07	04:26 21:57	04:46 20:57	05:43 19:37	06:45 18:17	08:16 (B1) 16:07	07:53 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	07:47 (B1) 20:24	06:10 21:26	05:01 22:08	04:25 21:55	04:48 20:54	05:45 19:34	06:47 18:14	08:16 (B1) 16:06	07:55 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	07:47 (B1) 20:26	06:09 21:27	05:00 22:09	04:25 21:54	04:49 20:52	05:47 19:31	06:49 18:12	08:16 (B1) 16:04	07:57 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	07:47 (B1) 20:28	06:04 21:29	05:04 22:09	04:25 21:53	04:51 20:50	05:49 19:29	06:51 18:09	08:16 (B1) 16:02	07:59 15:38
19	08:36 16:18	07:36 17:25	06:24 18:26	07:47 (B1) 20:30	06:02 21:31	05:02 22:09	04:25 21:51	04:52 20:47	05:51 19:26	06:53 18:07	08:16 (B1) 16:01	07:59 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	07:47 (B1) 20:33	06:01 21:33	05:03 22:10	04:25 21:50	04:54 20:45	05:53 19:23	06:55 18:04	08:16 (B1) 15:59	07:59 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30	07:47 (B1) 20:35	05:57 21:35	05:04 22:10	04:25 21:48	04:56 20:42	05:55 19:20	06:57 18:02	08:16 (B1) 15:58	07:59 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	07:47 (B1) 20:37	05:54 21:37	05:04 22:10	04:25 21:46	04:57 20:40	05:57 19:18	06:59 17:59	08:01 15:56	07:59 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	07:47 (B1) 20:39	05:52 21:38	05:04 22:10	04:26 21:45	04:59 20:37	05:59 19:15	07:01 18:03	08:03 15:55	07:59 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	07:47 (B1) 20:41	05:49 21:40	05:04 22:10	04:26 21:43	05:01 20:35	06:01 19:12	07:03 17:55	08:05 15:53	07:59 15:40
25	08:27 16:30	07:21 17:39	06:07 18:38	07:47 (B1) 20:43	05:47 21:42	05:03 22:10	04:26 21:41	05:03 20:32	06:03 19:10	07:05 16:52	08:07 15:52	07:59 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	07:47 (B1) 20:45	05:44 21:43	05:04 22:10	04:27 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:07 15:51	07:59 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	07:47 (B1) 20:47	05:42 21:45	05:06 22:10	04:27 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:07 15:49	07:59 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	07:47 (B1) 20:49	05:39 21:47	05:08 22:10	04:28 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:07 15:48	07:59 15:44
29	08:20 16:39	07:11 17:49	05:57 18:49	07:47 (B1) 20:51	05:37 21:48	05:09 22:10	04:28 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:07 15:47	07:59 15:44
30	08:19 16:41	07:10 17:54	05:54 18:51	07:47 (B1) 20:53	05:35 21:50	05:09 22:09	04:29 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:07 15:46	07:59 15:45
31	08:17 16:43	07:09 17:51	05:51 18:51	07:47 (B1) 20:55	05:33 21:51	05:10 21:30	04:26 20:17	06:15 20:17	07:15 18:56	07:18 16:38	08:07 15:47	07:59 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		23	293						18	309		
Sun reduction		0.20	0.41						0.43	0.26		
Oper. time red.		0.94	0.94						0.94	0.94		
Wind dir. red.		0.62	0.62						0.62	0.62		
Total reduction		0.12	0.24						0.25	0.15		
Total, real		3	71						5	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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31	08:17 16:43		06:52 19:51		06:52 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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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31	08:17 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:00 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:50 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:46 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:06 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:08 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:10 20:24	07:11 19:02	07:14 16:45	08:19 15:49	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:12 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:16 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	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)

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 (B14)	06:49	05:33
	15:48	16:45	17:48	29 08:24 (B14)	19:53	20:55
2	08:50	08:13	07:08	07:55 (B14)	06:46	05:30
	15:50	16:48	17:50	28 08:23 (B14)	19:55	20:58
3	08:50	08:11	07:06	07:56 (B14)	06:43	05:28
	15:51	16:50	17:52	27 08:23 (B14)	19:57	21:00
4	08:50	08:09	07:03	07:56 (B14)	06:41	05:26
	15:52	16:52	17:54	26 08:22 (B14)	19:59	21:02
5	08:49	08:07	07:01	07:57 (B14)	06:38	05:24
	15:54	16:54	17:56	23 08:20 (B14)	20:01	21:04
6	08:49	08:05	06:58	07:58 (B14)	06:36	05:21
	15:55	16:56	17:58	21 08:19 (B14)	20:03	21:06
7	08:48	08:03	06:55	08:00 (B14)	06:33	05:19
	15:56	16:59	18:01	17 08:17 (B14)	20:06	21:08
8	08:48	08:01	06:53	08:02 (B14)	06:30	05:17
	15:58	17:01	18:03	11 08:13 (B14)	20:08	21:10
9	08:47	07:58	06:50		06:28	05:15
	16:00	17:03	18:05		20:10	21:12
10	08:46	07:56	06:48		06:25	05:13
	16:01	17:05	18:07		20:12	21:14
11	08:45	07:54	06:45		06:22	05:11
	16:03	17:08	18:09		20:14	21:16
12	08:44	07:52	06:42		06:20	05:09
	16:05	17:10	18:11		20:16	21:18
13	08:43	07:50	06:40		06:17	05:07
	16:06	17:12	18:13		20:18	21:20
14	08:42	07:47	06:37		06:15	05:05
	16:08	17:14	18:15		20:20	21:22
15	08:41	07:45	06:34		06:12	05:03
	16:10	17:17	18:18		20:22	21:24
16	08:40	07:43	06:32		06:09	05:01
	16:12	17:19	18:20		20:24	21:26
17	08:39	07:40	06:29		06:07	04:59
	16:14	17:21	18:22		20:26	21:27
18	08:38	07:38	08:05 (B14)	06:26	06:04	04:57
	16:16	17:23	12 08:17 (B14)	18:24	20:28	21:29
19	08:36	07:36	08:03 (B14)	06:24	06:02	04:55
	16:18	17:26	17 08:20 (B14)	18:26	20:31	21:31
20	08:35	07:33	08:00 (B14)	06:21	05:59	04:53
	16:20	17:28	21 08:21 (B14)	18:28	20:33	21:33
21	08:33	07:31	07:59 (B14)	06:18	05:57	04:52
	16:22	17:30	24 08:23 (B14)	18:30	20:35	21:35
22	08:32	07:28	07:58 (B14)	06:16	05:54	04:50
	16:24	17:32	25 08:23 (B14)	18:32	20:37	21:37
23	08:30	07:26	07:57 (B14)	06:13	05:52	04:48
	16:26	17:34	28 08:25 (B14)	18:34	20:39	21:38
24	08:29	07:23	07:56 (B14)	06:10	05:49	04:47
	16:28	17:37	29 08:25 (B14)	18:36	20:41	21:40
25	08:27	07:21	07:56 (B14)	06:08	05:47	04:45
	16:30	17:39	29 08:25 (B14)	18:39	20:43	21:42
26	08:26	07:18	07:56 (B14)	06:05	05:44	04:44
	16:32	17:41	29 08:25 (B14)	18:41	20:45	21:43
27	08:24	07:16	07:55 (B14)	06:02	05:42	04:42
	16:34	17:43	30 08:25 (B14)	18:43	20:47	21:45
28	08:22	07:13	07:55 (B14)	06:00	05:40	04:41
	16:37	17:45	30 08:25 (B14)	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		274	182		233	
Sun reduction		0.20	0.41		0.50	
Oper. time red.		0.94	0.94		0.94	
Wind dir. red.		0.63	0.63		0.66	
Total reduction		0.12	0.24		0.31	
Total, real		32	44		72	

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 (B22) 07:01 (B22)	07:17 18:54	07:23 16:36
2	04:31 22:09	05:18 21:26	06:19 20:11	06:49 (B22) 07:00 (B22)	07:19 18:51	07:25 16:34
3	04:32 22:08	05:20 21:24	06:21 20:09	06:51 (B22) 06:58 (B22)	07:21 18:48	07:27 16:32
4	04:33 22:07	05:22 21:22	06:23 20:06	06:53 (B22) 06:55 (B22)	07:23 18:46	07:29 16:30
5	04:34 22:07	05:23 21:20	06:25 20:04	07:25 18:43	08:41 (B14) 08:48 (B14)	07:31 16:27
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:37 (B14) 08:52 (B14)	07:33 16:25
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:35 (B14) 08:54 (B14)	07:36 16:23
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:33 (B14) 08:55 (B14)	07:38 16:21
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:32 (B14) 08:57 (B14)	07:40 16:19
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:31 (B14) 08:57 (B14)	07:42 16:17
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:30 (B14) 08:58 (B14)	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:29 (B14) 08:58 (B14)	07:46 16:13
13	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:28 (B14) 08:57 (B14)	07:49 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:27 (B14) 08:57 (B14)	07:51 16:10
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:28 (B14) 08:58 (B14)	07:53 16:08
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:28 (B14) 08:57 (B14)	07:55 16:06
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:28 (B14) 08:56 (B14)	07:57 16:04
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	08:28 (B14) 08:56 (B14)	07:59 16:03
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:29 (B14) 08:55 (B14)	08:01 16:01
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:29 (B14) 08:54 (B14)	08:03 15:59
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:30 (B14) 08:53 (B14)	08:05 15:58
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:31 (B14) 08:51 (B14)	08:07 15:56
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:34 (B14) 08:50 (B14)	08:09 15:55
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:36 (B14) 08:46 (B14)	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	08:13 15:51
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 15:51	08:15 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:48	08:17 15:50	08:17 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:46	08:19 15:48	08:19 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	08:21 15:47	08:21 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:41	08:22 15:46	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	08:24 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		199	34	465		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.66	0.66	0.63		
Total reduction		0.31	0.26	0.15		
Total, real		61	9	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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
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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 22:10	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:31 17:30	06:18 18:30	05:56 20:35	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:49 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
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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	04:27 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
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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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	06:19 (B14) 21:53	04:36 22:09	04:30 22:09	05:16 21:28	06:35 (B14) 20:14	06:17 18:54	07:17 16:36	07:23 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	06:19 (B14) 21:54	04:35 22:08	04:31 22:08	05:18 21:26	06:33 (B14) 20:11	06:19 18:51	07:19 16:34	07:25 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	06:19 (B14) 21:55	04:34 22:08	04:32 22:08	05:20 21:24	06:32 (B14) 20:09	06:21 18:48	07:21 16:32	07:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:19 (B14) 21:57	04:33 22:07	04:33 22:07	05:22 21:22	06:31 (B14) 20:06	06:23 18:46	07:23 16:30	07:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	06:19 (B14) 21:58	04:32 22:07	04:34 22:07	05:24 21:20	06:31 (B14) 20:03	06:25 18:43	07:25 16:27	07:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:20 (B14) 21:59	04:31 22:06	04:35 22:06	05:25 21:17	06:29 (B14) 20:01	06:27 18:40	07:28 16:25	07:33 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 (B14) 22:00	04:30 22:05	04:36 22:05	05:27 21:15	06:29 (B14) 19:58	06:29 18:38	07:30 16:23	07:36 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 (B14) 22:01	04:29 22:04	04:37 22:04	05:29 21:13	06:29 (B14) 19:56	06:31 18:35	07:32 16:21	07:38 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:21 (B14) 22:02	04:29 22:03	04:38 22:03	05:31 21:11	06:28 (B14) 19:53	06:33 18:33	07:34 16:19	07:40 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	06:22 (B14) 22:03	04:28 22:02	04:40 22:02	05:33 21:08	06:28 (B14) 19:50	06:35 18:30	07:36 16:17	07:42 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:23 (B14) 22:04	04:28 22:01	04:41 22:01	05:35 21:06	06:28 (B14) 19:47	06:37 18:27	07:38 16:15	07:44 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:24 (B14) 22:05	04:27 22:00	04:42 22:00	05:37 21:04	06:27 (B14) 19:45	06:39 18:25	07:40 16:13	07:46 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:26 (B14) 22:06	04:27 21:59	04:44 21:59	05:39 21:02	06:29 (B14) 19:42	06:41 18:22	07:42 16:11	07:49 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:28 (B14) 22:07	04:26 21:58	04:45 21:58	05:41 20:59	06:27 (B14) 19:39	06:43 18:20	07:44 16:10	07:51 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:31 (B14) 22:07	04:26 21:57	04:46 21:57	05:43 20:57	06:28 (B14) 19:37	06:45 18:17	07:46 16:08	07:53 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:36 (B14) 22:08	04:26 21:55	04:48 21:55	05:45 20:54	06:28 (B14) 19:34	06:47 18:15	07:48 16:05	07:55 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	04:51 21:54	05:47 20:52	06:28 (B14) 19:31	06:49 18:12	07:50 16:04	07:57 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	04:51 21:52	05:49 20:50	06:29 (B14) 19:29	06:51 18:09	07:52 16:03	07:59 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	06:29 (B14) 19:26	06:53 18:07	07:55 16:01	08:01 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	06:31 (B14) 22:10	04:54 21:49	04:54 21:49	05:53 20:45	06:30 (B14) 19:23	06:55 18:04	07:57 15:59	08:03 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:44 (B14) 22:10	04:52 21:48	04:56 21:48	05:55 20:42	06:31 (B14) 19:21	06:57 18:02	07:59 15:58	08:05 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	06:46 (B14) 22:10	04:50 21:46	04:58 21:46	05:57 20:40	06:33 (B14) 19:18	06:59 18:00	08:01 15:56	08:07 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	06:50 (B14) 22:10	04:49 21:45	04:59 21:45	05:59 20:37	06:35 (B14) 19:15	07:01 17:57	08:03 15:55	08:09 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:51 (B14) 22:10	04:47 21:43	04:59 21:43	06:01 20:35	06:47 (B14) 19:12	07:03 17:55	08:05 15:53	08:11 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	06:52 (B14) 22:10	04:45 21:41	04:57 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:18 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	06:53 (B14) 22:10	04:44 21:39	04:55 21:39	06:05 20:30	06:57 (B14) 19:07	07:10 16:50	08:15 15:51	08:21 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	06:54 (B14) 22:10	04:42 21:38	04:56 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:21 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	06:55 (B14) 22:10	04:41 21:36	04:58 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:24 15:44
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	06:56 (B14) 22:10	04:40 21:34	04:59 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:25 15:45
30	08:18 16:41	07:04 17:49	05:54 18:49	05:35 20:53	04:38 21:50	06:57 (B14) 22:09	06:37 (B14) 21:32	06:37 (B14) 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:25 15:46
31	08:17 16:43	07:03 17:51	05:52 18:51	05:32 20:53	04:37 21:51	06:58 (B14) 22:09	06:38 (B14) 21:30	06:38 (B14) 21:30	06:15 20:17	07:17 18:58	07:20 16:38	08:23 15:47	08:26 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216	
Total, worst case				285	367		39	622					
Sun reduction				0.50	0.57		0.49	0.50					
Oper. time red.				0.94	0.94		0.94	0.94					
Wind dir. red.				0.65	0.65		0.65	0.65					
Total reduction				0.31	0.35		0.30	0.30					
Total, real				87	128		12	190					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	17 07:09 (B1) 07:26 (B1)	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:05 (B1) 07:39 (B1)	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	9 07:13 (B1) 07:22 (B1)	04:35 21:54	04:31 22:09	05:17 21:26	06:19 20:11	07:06 (B1) 07:38 (B1)	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	07:06 (B1) 07:36 (B1)	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	07:08 (B1) 07:34 (B1)	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	07:19 (B1) 07:29 (B1)	04:32 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:08 (B1) 07:31 (B1)	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	07:15 (B1) 07:33 (B1)	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:10 (B1) 07:29 (B1)	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	07:12 (B1) 07:35 (B1)	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:14 (B1) 07:25 (B1)	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	07:10 (B1) 07:36 (B1)	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 (B1) 07:38 (B1)	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	07:07 (B1) 07:39 (B1)	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	07:06 (B1) 07:40 (B1)	04:27 22:04	04:41 22:01	05:35 21:06		07:20 (B1) 07:32 (B1)	06:37 19:47	07:38 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 (B1) 07:40 (B1)	04:27 22:05	04:42 22:00	05:37 21:04		07:17 (B1) 07:35 (B1)	06:39 19:45	07:40 18:25	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	07:04 (B1) 07:41 (B1)	04:26 22:06	04:43 21:59	05:39 21:01		07:15 (B1) 07:37 (B1)	06:41 19:42	07:42 18:22	08:42 16:11	
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	07:03 (B1) 07:40 (B1)	04:26 22:07	04:45 21:58	05:41 20:59		07:13 (B1) 07:39 (B1)	06:43 19:39	07:44 18:19	08:43 16:09	
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:02 21:24	07:02 (B1) 07:41 (B1)	04:26 22:07	04:46 21:57	05:43 20:57		07:12 (B1) 07:40 (B1)	06:45 19:37	07:46 18:17	08:44 16:07	
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	07:01 (B1) 07:41 (B1)	04:25 22:08	04:48 21:55	05:45 20:54		07:11 (B1) 07:41 (B1)	06:47 19:34	07:48 18:14	08:45 16:06	
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	07:02 (B1) 07:41 (B1)	04:25 22:08	04:49 21:54	05:47 20:52		07:09 (B1) 07:41 (B1)	06:49 19:31	07:50 18:12	08:46 16:04	
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	07:01 (B1) 07:40 (B1)	04:25 22:09	04:51 21:52	05:49 20:50		07:08 (B1) 07:42 (B1)	06:51 19:29	07:52 18:09	08:46 16:02	
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	07:01 (B1) 07:40 (B1)	04:25 22:09	04:52 21:51	05:51 20:47		07:07 (B1) 07:43 (B1)	06:53 19:26	07:55 18:07	08:47 16:01	
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	07:00 (B1) 07:39 (B1)	04:25 22:10	04:54 21:49	05:53 20:45		07:06 (B1) 07:43 (B1)	06:55 19:23	07:57 18:04	08:48 15:59	
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	07:01 (B1) 07:39 (B1)	04:25 22:10	04:56 21:48	05:55 20:42		07:06 (B1) 07:43 (B1)	06:57 19:20	07:59 18:02	08:48 15:58	
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:37	07:01 (B1) 07:39 (B1)	04:25 22:10	04:57 21:46	05:57 20:40		07:05 (B1) 07:44 (B1)	06:59 19:18	08:01 17:59	08:49 15:56	
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	07:01 (B1) 07:37 (B1)	04:26 22:10	04:59 21:45	05:59 20:37		07:05 (B1) 07:44 (B1)	07:01 19:15	08:03 17:57	08:50 15:55	
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	07:02 (B1) 07:37 (B1)	04:26 22:10	05:01 21:43	06:01 20:35		07:05 (B1) 07:44 (B1)	07:03 19:12	08:05 17:55	08:51 15:53	
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:42	07:02 (B1) 07:36 (B1)	04:26 22:10	05:03 21:41	06:03 20:32		07:04 (B1) 07:44 (B1)	07:05 19:10	08:07 16:52	08:50 15:52	
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	07:02 (B1) 07:34 (B1)	04:27 22:10	05:04 21:39	06:05 20:29		07:03 (B1) 07:43 (B1)	07:07 19:07	08:10 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	07:03 (B1) 07:33 (B1)	04:27 22:10	05:06 21:38	06:07 20:27		07:03 (B1) 07:42 (B1)	07:09 19:04	08:12 16:47	08:51 15:49	
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:47	07:05 (B1) 07:32 (B1)	04:28 22:10	05:08 21:36	06:09 20:24		07:03 (B1) 07:42 (B1)	07:11 19:02	08:19 16:45	08:51 15:48	
29	08:20 16:39		06:57 19:47	05:37 20:51	04:39 21:48	07:06 (B1) 07:31 (B1)	04:28 22:10	05:10 21:34	06:11 20:22		07:04 (B1) 07:41 (B1)	07:13 18:59	08:21 16:43	08:51 15:47	
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:50	07:07 (B1) 07:28 (B1)	04:29 22:09	05:12 21:32	06:13 20:19		07:04 (B1) 07:41 (B1)	07:15 18:56	08:22 16:40	08:51 15:45	
31	08:17 16:43		06:51 19:51		04:37 21:51			05:14 21:30	06:15 20:17		07:04 (B1) 07:40 (B1)		08:51 16:38		15:47
Potential sun hours	235	266	366	426	508		529	529	469		385		324	247	216
Total, worst case				834	26				697		175				
Sun reduction				0.50	0.57				0.50		0.43				
Oper. time red.				0.94	0.94				0.94		0.94				
Wind dir. red.				0.66	0.66				0.66		0.66				
Total reduction				0.31	0.35				0.31		0.26				
Total, real				258	9				215		46				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January				February				March				April				May				June			
1	08:51		13:05 (B22)	08:15	07:11								06:49				05:32			06:39 (B1)	04:36			
	15:48	12	13:17 (B22)	16:45	17:47								19:53				20:55	42		07:21 (B1)	21:53			
2	08:50		13:07 (B22)	08:13	07:08								06:46				05:30			06:39 (B1)	04:35			
	15:49	10	13:17 (B22)	16:47	17:50								19:55				20:57	42		07:21 (B1)	21:54			
3	08:50		13:08 (B22)	08:11	07:06								06:43				05:28			06:39 (B1)	04:34			
	15:51	8	13:16 (B22)	16:50	17:52								19:57				21:00	42		07:21 (B1)	21:55			
4	08:50		13:12 (B22)	08:09	07:03								06:41				05:26			06:40 (B1)	04:33			
	15:52	1	13:13 (B22)	16:52	17:54								19:59				21:02	40		07:20 (B1)	21:57			
5	08:49			08:07	07:00								06:38				05:23			06:40 (B1)	04:32			
	15:53			16:54	17:56								20:01				21:04	40		07:20 (B1)	21:58			
6	08:49			08:05	06:58								06:35				05:21			06:40 (B1)	04:31			
	15:55			16:56	17:58								20:03				21:06	39		07:19 (B1)	21:59			
7	08:48			08:03	06:55								06:33				05:19			06:41 (B1)	04:30			
	15:56			16:59	18:00								20:05				21:08	38		07:19 (B1)	22:00			
8	08:48			08:00	06:53								06:30				05:17			06:41 (B1)	04:29			
	15:58			17:01	18:03								20:08				21:10	37		07:18 (B1)	22:01			
9	08:47			07:58	06:50								06:27				05:15			06:42 (B1)	04:28			
	15:59			17:03	18:05								20:10				21:12	35		07:17 (B1)	22:02			
10	08:46			07:56	06:47								06:25				05:13			06:43 (B1)	04:28			
	16:01			17:05	18:07								20:12				21:14	33		07:16 (B1)	22:03			
11	08:45			07:54	06:45								06:22				05:10			06:43 (B1)	04:27			
	16:03			17:08	18:09								20:14				21:16	32		07:15 (B1)	22:04			
12	08:44			07:52	06:42								06:20				05:08			06:44 (B1)	04:27			
	16:04			17:10	18:11	5							20:16				21:18	29		07:13 (B1)	22:05			
13	08:43			07:49	06:39								06:17				05:06			06:45 (B1)	04:26			
	16:06			17:12	18:13	11							20:18				21:20	27		07:12 (B1)	22:06			
14	08:42			07:47	06:37								06:14				05:04			06:47 (B1)	04:26			
	16:08			17:14	18:15	15							20:20	10			07:09 (B1)	21:22	24	07:11 (B1)	22:07			
15	08:41			07:45	06:34								06:12				06:55 (B1)	05:02		06:48 (B1)	04:26			
	16:10			17:17	18:17	19							20:22	18			07:13 (B1)	21:24	21	07:09 (B1)	22:07			
16	08:40			07:43	06:31								06:09				06:52 (B1)	05:01		06:50 (B1)	04:25			
	16:12			17:19	18:20	20							20:24	23			07:15 (B1)	21:25	17	07:07 (B1)	22:08			
17	08:39			07:40	06:29								06:07				06:50 (B1)	04:59		06:53 (B1)	04:25			
	16:14			17:21	18:22	22							20:26	27			07:17 (B1)	21:27	12	07:05 (B1)	22:08			
18	08:37			07:38	06:26								06:04				06:47 (B1)	04:57			04:25			
	16:16			17:23	18:24	22							20:28	31			07:18 (B1)	21:29			22:09			
19	08:36			07:35	06:23								06:02				06:46 (B1)	04:55			04:25			
	16:18			17:25	18:26	22							20:30	33			07:19 (B1)	21:31			22:09			
20	08:35			07:33	06:21								05:59				06:44 (B1)	04:53			04:25			
	16:20			17:28	18:28	22							20:33	36			07:20 (B1)	21:33			22:10			
21	08:33			07:31	06:18								05:57				06:44 (B1)	04:52			04:25			
	16:22			17:30	18:30	21							20:35	37			07:21 (B1)	21:35			22:10			
22	08:32			07:28	06:15								05:54				06:43 (B1)	04:50			04:25			
	16:24			17:32	18:32	20							20:37	39			07:22 (B1)	21:36			22:10			
23	08:30			07:26	06:13								05:52				06:42 (B1)	04:48			04:26			
	16:26			17:34	18:34	17							20:39	39			07:21 (B1)	21:38			22:10			
24	08:29			07:23	06:10								05:49				06:41 (B1)	04:47			04:26			
	16:28			17:37	18:36	14							20:41	41			07:22 (B1)	21:40			22:10			
25	08:27			07:21	06:07								05:47				06:41 (B1)	04:45			04:26			
	16:30			17:39	18:38	10							20:43	41			07:22 (B1)	21:42			22:10			
26	08:26			07:18	06:05								05:44				06:40 (B1)	04:44			04:27			
	16:32			17:41	18:40								20:45	42			07:22 (B1)	21:43			22:10			
27	08:24			07:16	06:02								05:42				06:40 (B1)	04:42			04:27			
	16:34			17:43	18:43								20:47	42			07:22 (B1)	21:45			22:10			
28	08:22			07:13	05:59								05:39				06:40 (B1)	04:41			04:28			
	16:36			17:45	18:45								20:49	42			07:22 (B1)	21:47			22:10			
29	08:20				06:57								05:37				06:40 (B1)	04:39			04:28			
	16:39				19:47								20:51	42			07:22 (B1)	21:48			22:10			
30	08:18				06:54								05:35				06:39 (B1)	04:38			04:29			
	16:41				19:49								20:53	42			07:21 (B1)	21:50			22:09			
31	08:17				06:51																			
	16:43				19:51																			
Potential sun hours	235			266	366								426				508				529			
Total, worst case		31			240									585				550						
Sun reduction		0.13			0.41									0.50				0.57						
Oper. time red.		0.94			0.94									0.94				0.94						
Wind dir. red.		0.64			0.63									0.66				0.66						
Total reduction		0.08			0.24									0.31				0.35						
Total, real		2			59									180				192						

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

July		August		September		October		November		December	
1	04:30	05:16	06:54 (B1)	06:17		07:17	07:46 (B4)	07:23	08:24		
	22:09	21:28	30 07:24 (B1)	20:14		18:54	8 07:54 (B4)	16:36	15:45		
2	04:31	05:17	06:53 (B1)	06:19		07:19		07:25	08:26		
	22:09	21:26	32 07:25 (B1)	20:11		18:51		16:34	15:44		
3	04:32	05:19	06:53 (B1)	06:21		07:21		07:27	08:28		
	22:08	21:24	33 07:26 (B1)	20:09		18:48		16:31	15:43		
4	04:33	05:21	06:52 (B1)	06:23		07:23		07:29	08:29		
	22:07	21:22	35 07:27 (B1)	20:06		18:46		16:29	15:42		
5	04:33	05:23	06:50 (B1)	06:25		07:25		07:31	08:31		
	22:07	21:19	37 07:27 (B1)	20:03		18:43		16:27	15:41		
6	04:35	05:25	06:50 (B1)	06:27		07:27		07:33	08:32		
	22:06	21:17	38 07:28 (B1)	20:01		18:40		16:25	15:41		
7	04:36	05:27	06:50 (B1)	06:29		07:29		07:36	08:34		
	22:05	21:15	39 07:29 (B1)	19:58		18:38		16:23	15:40		
8	04:37	05:29	06:49 (B1)	06:31		07:32		07:38	08:35		
	22:04	21:13	40 07:29 (B1)	19:55		18:35		16:21	15:40		
9	04:38	05:31	06:49 (B1)	06:33		07:34		07:40	08:37		12:57 (B22)
	22:03	21:11	41 07:30 (B1)	19:53		18:32		16:19	15:39	7	13:04 (B22)
10	04:39	05:33	06:48 (B1)	06:35		07:36		07:42	08:38		12:56 (B22)
	22:02	21:08	41 07:29 (B1)	19:50		18:30		16:17	15:39	10	13:06 (B22)
11	04:41	05:35	06:47 (B1)	06:37		07:38		07:44	08:39		12:55 (B22)
	22:01	21:06	43 07:30 (B1)	19:47		18:27		16:15	15:38	12	13:07 (B22)
12	04:42	05:37	06:47 (B1)	06:39		07:40		07:46	08:40		12:56 (B22)
	22:00	21:04	43 07:30 (B1)	19:45		18:25		16:13	15:38	13	13:09 (B22)
13	04:43	05:39	06:47 (B1)	06:41		07:42		07:49	08:42		12:55 (B22)
	21:59	21:01	43 07:30 (B1)	19:42		18:22		16:11	15:38	15	13:10 (B22)
14	04:45	05:41	06:47 (B1)	06:43		07:44		07:51	08:43		12:55 (B22)
	21:58	20:59	43 07:30 (B1)	19:39		18:19		16:09	15:38	16	13:11 (B22)
15	04:46	05:43	06:47 (B1)	06:45		07:46		07:53	08:44		12:55 (B22)
	21:57	20:57	43 07:30 (B1)	19:37		18:17		16:07	15:38	16	13:11 (B22)
16	04:48	05:45	06:47 (B1)	06:47		07:48		07:55	08:45		12:55 (B22)
	21:55	20:54	43 07:30 (B1)	19:34		18:14		16:06	15:38	17	13:12 (B22)
17	04:49	05:47	06:46 (B1)	06:49		07:50		07:57	08:46		12:56 (B22)
	21:54	20:52	42 07:28 (B1)	19:31		18:12		16:04	15:38	17	13:13 (B22)
18	04:51	05:49	06:47 (B1)	06:51	07:50 (B4)	07:52		07:59	08:46		12:56 (B22)
	21:52	20:50	41 07:28 (B1)	19:29	8 07:58 (B4)	18:09		16:02	15:38	18	13:14 (B22)
19	04:52	05:51	06:47 (B1)	06:53	07:47 (B4)	07:55		08:01	08:47		12:56 (B22)
	21:51	20:47	40 07:27 (B1)	19:26	13 08:00 (B4)	18:07		16:01	15:38	18	13:14 (B22)
20	04:54	05:53	06:47 (B1)	06:55	07:45 (B4)	07:57		08:03	08:48		12:56 (B22)
	21:49	20:45	40 07:27 (B1)	19:23	16 08:01 (B4)	18:04		15:59	15:38	19	13:15 (B22)
21	04:56	05:55	06:48 (B1)	06:57	07:43 (B4)	07:59		08:05	08:48		12:57 (B22)
	21:48	20:42	38 07:26 (B1)	19:20	19 08:02 (B4)	18:02		15:58	15:39	19	13:16 (B22)
22	04:57	05:57	06:48 (B1)	06:59	07:41 (B4)	08:01		08:07	08:49		12:57 (B22)
	21:46	20:40	37 07:25 (B1)	19:18	21 08:02 (B4)	17:59		15:56	15:39	19	13:16 (B22)
23	04:59	05:59	06:49 (B1)	07:01	07:40 (B4)	08:03		08:09	08:50		12:58 (B22)
	21:45	20:37	35 07:24 (B1)	19:15	22 08:02 (B4)	17:57		15:55	15:40	19	13:17 (B22)
24	05:01	06:01	06:50 (B1)	07:03	07:40 (B4)	08:05		08:11	08:50		12:58 (B22)
	21:43	20:35	33 07:23 (B1)	19:12	22 08:02 (B4)	17:55		15:53	15:40	19	13:17 (B22)
25	05:03	06:03	06:51 (B1)	07:05	07:39 (B4)	07:07		08:13	08:50		12:59 (B22)
	21:41	20:32	30 07:21 (B1)	19:10	22 08:01 (B4)	16:52		15:52	15:41	18	13:17 (B22)
26	05:04	06:05	06:52 (B1)	07:07	07:39 (B4)	07:09		08:15	08:51		12:59 (B22)
	21:39	20:29	27 07:19 (B1)	19:07	22 08:01 (B4)	16:50		15:51	15:42	18	13:17 (B22)
27	05:06	07:02 (B1)	06:07	06:54 (B1)	07:09	07:12		08:17	08:51		13:00 (B22)
	21:38	14 07:16 (B1)	20:27	07:17 (B1)	19:04	21 08:01 (B4)		15:49	15:43	17	13:17 (B22)
28	05:08	06:59 (B1)	06:09	06:56 (B1)	07:11	07:14		08:19	08:51		13:01 (B22)
	21:36	19 07:18 (B1)	20:24	07:14 (B1)	19:02	19 08:00 (B4)		15:48	15:44	16	13:17 (B22)
29	05:10	06:58 (B1)	06:11	07:00 (B1)	07:13	07:16		08:21	08:51		13:02 (B22)
	21:34	22 07:20 (B1)	20:22	9 07:09 (B1)	18:59	16 07:58 (B4)		15:47	15:44	16	13:18 (B22)
30	05:12	06:57 (B1)	06:13		07:15	07:18		08:22	08:51		13:03 (B22)
	21:32	25 07:22 (B1)	20:19		18:56	13 07:57 (B4)		15:46	15:45	15	13:18 (B22)
31	05:14	06:56 (B1)	06:15			07:20			08:51		13:04 (B22)
	21:30	28 07:24 (B1)	20:17			16:38			15:47	14	13:18 (B22)
Potential sun hours	529		469		385	324		247	216		
Total, worst case	114		1037		234	8			368		
Sun reduction	0.49		0.50		0.43	0.26			0.07		
Oper. time red.	0.94		0.94		0.94	0.94			0.94		
Wind dir. red.	0.66		0.66		0.63	0.63			0.64		
Total reduction	0.30		0.31		0.25	0.15			0.04		
Total, real	35		318		59	1			15		

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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 19:05	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
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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)	Minutes with flicker	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	7	07:48 (B14) 07:55 (B14)	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 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	07:53 (B14) 08:03 (B14)		07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	12	07:06 (B14) 07:18 (B14)	06:17 20:18	05:07 21:20	04:27 22:06	05:39 21:02	06:41 19:42	10	07:42 18:22	07:49 (B14) 08:06 (B14)		07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	17	07:03 (B14) 07:20 (B14)	06:15 20:20	05:05 21:22	04:26 22:07	05:41 21:58	06:43 20:39	17	07:44 18:20	07:47 (B14) 08:08 (B14)		07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	22	07:01 (B14) 07:23 (B14)	06:12 20:22	05:03 21:24	04:26 22:07	05:43 21:57	06:45 19:37	21	07:46 18:17	06:45 (B14) 08:09 (B14)		07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	24	06:59 (B14) 07:23 (B14)	06:09 20:24	05:01 21:25	04:26 22:08	05:45 21:55	06:47 19:34	24	07:48 18:15	06:47 (B14) 08:10 (B14)		07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	27	06:57 (B14) 07:24 (B14)	06:07 20:26	04:59 21:27	04:25 22:08	05:49 21:54	06:49 19:31	26	07:50 18:12	06:49 (B14) 08:10 (B14)		07:57 16:04	08:46 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	28	06:56 (B14) 07:24 (B14)	06:04 20:28	04:57 21:29	04:25 22:09	05:49 21:52	06:51 19:29	27	07:52 18:09	06:51 (B14) 08:11 (B14)		07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	29	06:56 (B14) 07:25 (B14)	06:02 20:31	04:55 21:31	04:25 22:09	05:51 21:51	06:53 19:26	29	07:55 18:07	06:53 (B14) 08:11 (B14)		08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	29	06:55 (B14) 07:25 (B14)	05:59 20:33	04:54 21:33	04:25 22:10	05:53 21:49	06:55 19:23	30	07:57 18:04	06:55 (B14) 08:11 (B14)		08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	30	06:54 (B14) 07:25 (B14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 21:48	06:57 19:21	31	07:59 18:02	06:57 (B14) 08:11 (B14)		08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	31	06:54 (B14) 07:25 (B14)	05:54 20:37	04:50 21:37	04:26 22:10	05:57 21:46	06:59 19:18	31	08:01 18:00	06:59 (B14) 08:10 (B14)		08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	30	06:54 (B14) 07:24 (B14)	05:52 20:39	04:48 21:38	04:26 22:10	05:59 21:45	07:01 19:15	31	08:03 17:57	07:01 (B14) 08:10 (B14)		08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	30	06:53 (B14) 07:23 (B14)	05:49 20:41	04:47 21:40	04:26 22:10	06:01 21:43	07:03 19:12	30	08:05 17:55	07:03 (B14) 08:09 (B14)		08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	29	06:54 (B14) 07:23 (B14)	05:47 20:43	04:45 21:42	04:27 22:10	06:03 21:41	07:05 19:10	29	08:07 17:52	07:05 (B14) 08:08 (B14)		08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	28	06:54 (B14) 07:22 (B14)	05:45 20:45	04:44 21:43	04:27 22:10	06:05 21:39	07:07 19:07	27	08:09 17:10	07:07 (B14) 08:07 (B14)		08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	27	06:54 (B14) 07:21 (B14)	05:42 20:47	04:42 21:45	04:28 22:10	06:06 21:38	07:09 19:04	26	08:12 17:14	07:09 (B14) 08:06 (B14)		08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	24	06:56 (B14) 07:20 (B14)	05:40 20:49	04:41 21:47	04:28 22:10	06:09 21:36	07:11 19:02	23	08:14 17:16	07:11 (B14) 08:04 (B14)		08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:47	06:57 18:47	22	07:56 (B14) 08:18 (B14)	05:37 20:51	04:40 21:48	04:29 22:10	06:11 21:34	07:13 19:02	19	08:16 17:18	07:13 (B14) 08:02 (B14)		08:21 15:47	08:51 15:45
30	08:19 16:41	07:10 17:49	06:54 18:49	17	07:58 (B14) 08:15 (B14)	05:35 20:53	04:38 21:50	04:29 22:09	06:12 21:32	07:15 19:03	14	08:18 17:20	07:15 (B14) 08:04 (B14)		08:22 15:46	08:51 15:46
31	08:17 16:43	07:09 17:51	06:52 18:51	12	08:01 (B14) 08:13 (B14)	05:33 20:53	04:37 21:51	04:37 21:51	06:15 21:30	07:17 20:17		08:20 17:38	07:17 (B14) 08:06 (B14)		08:24 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case			470							476		7				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.94							0.94		0.94				
Wind dir. red.			0.63							0.63		0.63				
Total reduction			0.25							0.26		0.15				
Total, real			116							122		1				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	05:29	06:31	07:32	07:38	08:35
	15:58	17:01	18:03	20:08	21:10	22:01	22:04	21:13	19:56	18:35	16:21	15:40
9	08:47	07:58	06:50	06:28	05:15	04:29	04:38	05:31	06:33	07:34	07:40	08:37
	16:00	17:03	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:33	16:19	15:40
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	15:38
13	08:43	07:50	06:40	06:17	05:07	04:27	04:44	05:39	06:41	07:42	07:49	08:42
	16:07	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	04:25	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	04:25	04:54	05:53	06:55	07:57	08:03	08:48
	16:20	17:28	18:28	20:33	21:33	22:10	21:49	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	08:50
	16:26	17:35	18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:55	15:40
24	08:29	07:23	06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:11	08:50
	16:28	17:37	18:36	20:41	21:40	22:10	21:43	20:35	19:13	17:55	15:54	15:41
25	08:27	07:21	06:08	05:47	04:45	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	15:41
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	15:48	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	07:05 (B14) 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 (B14) 20:58	05:30 21:54	04:35 22:09	04:31 21:26	05:18 20:11	07:03 (B14) 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 (B14) 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:20 20:09	07:02 (B14) 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 (B14) 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:22 20:06	07:01 (B14) 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 (B14) 21:04	05:24 21:58	04:32 22:07	04:34 21:20	05:24 20:04	07:01 (B14) 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	07:05 (B14) 21:06	05:21 21:59	04:31 22:06	04:35 21:17	05:26 20:01	07:01 (B14) 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 (B14) 21:08	05:19 22:00	04:30 22:05	05:27 21:15	06:29 19:58	07:00 (B14) 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 (B14) 21:10	05:17 22:01	04:29 22:04	05:29 21:13	06:31 19:56	07:00 (B14) 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 (B14) 21:12	05:15 22:02	04:29 22:03	05:31 21:11	06:33 19:53	07:02 (B14) 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	07:04 (B14) 21:14	05:13 22:03	04:28 22:02	05:33 21:08	06:35 19:50	07:04 (B14) 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 (B14) 21:16	05:11 22:04	04:28 22:01	05:35 21:06	06:37 19:48	07:06 (B14) 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	07:06 (B14) 21:18	05:09 22:05	04:27 22:00	05:37 21:04	06:39 19:45	07:08 (B14) 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	07:09 (B14) 21:20	05:07 22:06	04:27 21:59	05:39 21:02	06:41 19:42	07:14 (B14) 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	07:17 (B14) 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 16:03	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	06:57 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	07:09 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	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:07 19:51	06:52 19:51	07:17 (B14) 07:23 (B14)	04:37 21:51	05:14 21:30	06:15 20:17	07:06 (B14) 07:19 (B14)	07:15 18:56	08:19 17:40	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			6	222				21	209			
Sun reduction			0.41	0.50				0.50	0.43			
Oper. time red.			0.94	0.94				0.94	0.94			
Wind dir. red.			0.66	0.66				0.66	0.66			
Total reduction			0.26	0.31				0.31	0.26			
Total, real			2	69				6	55			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51		10:37 (B1)	08:15		11:00 (B1)	07:11		07:55 (B2)	06:49		05:32		06:31 (B17)	04:36			
	15:48	45	11:22 (B1)	16:45	18	11:18 (B1)	17:47	25	08:20 (B2)	19:53		20:55	44	07:15 (B17)	21:53			
2	08:50		10:38 (B1)	08:13		11:05 (B1)	07:08		07:55 (B2)	06:46		05:30		06:31 (B17)	04:34			
	15:49	45	11:23 (B1)	16:47	9	11:14 (B1)	17:50	24	08:19 (B2)	19:55		20:57	44	07:15 (B17)	21:54			
3	08:50		09:29 (B4)	08:11			07:06		07:56 (B2)	06:43		05:28		06:31 (B17)	04:33			
	15:50	47	11:23 (B1)	16:49			17:52	22	08:18 (B2)	19:57		21:00	44	07:15 (B17)	21:55			
4	08:50		09:28 (B4)	08:09			07:03		07:57 (B2)	06:41		05:25		06:31 (B17)	04:32			
	15:52	49	11:23 (B1)	16:52			17:54	20	08:17 (B2)	19:59		21:02	44	07:15 (B17)	21:57			
5	08:49		09:28 (B4)	08:07			07:00		07:58 (B2)	06:38		05:23		06:31 (B17)	04:31			
	15:53	51	11:24 (B1)	16:54			17:56	16	08:14 (B2)	20:01		21:04	43	07:14 (B17)	21:58			
6	08:49		09:27 (B4)	08:05			06:58		08:01 (B2)	06:35		05:21		06:32 (B17)	04:31			
	15:55	53	11:24 (B1)	16:56			17:58	11	08:12 (B2)	20:03		21:06	42	07:14 (B17)	21:59			
7	08:48		09:26 (B4)	08:03			06:55			06:33		05:19		06:32 (B17)	04:30			
	15:56	56	11:25 (B1)	16:58			18:00			20:05		21:08	41	07:13 (B17)	22:00			
8	08:48		09:25 (B4)	08:00			06:53			06:30		05:17		06:32 (B17)	04:29			
	15:58	57	11:25 (B1)	17:01			18:03			20:07		21:10	41	07:13 (B17)	22:01			
9	08:47		09:24 (B4)	07:58			06:50			06:27		05:15		06:33 (B17)	04:28			
	15:59	60	11:26 (B1)	17:03			18:05			20:10		21:12	39	07:12 (B17)	22:02			
10	08:46		09:23 (B4)	07:56			06:47			06:25		05:12		06:33 (B17)	04:28			
	16:01	61	11:26 (B1)	17:05			18:07			20:12		21:14	39	07:12 (B17)	22:03			
11	08:45		09:22 (B4)	07:54			06:45			06:22		05:10		06:33 (B17)	04:27			
	16:03	64	11:27 (B1)	17:07			18:09			20:14		21:16	38	07:11 (B17)	22:04			
12	08:44		09:21 (B4)	07:52			06:42			06:20		05:08		06:34 (B17)	04:27			
	16:04	65	11:27 (B1)	17:10			18:11			20:16		21:18	36	07:10 (B17)	22:05			
13	08:43		09:20 (B4)	07:49			06:39			06:17		05:06		06:34 (B17)	04:26			
	16:06	67	11:27 (B1)	17:12			18:13			20:18		21:20	35	07:09 (B17)	22:06			
14	08:42		09:20 (B4)	07:47			06:37			06:14		05:04		06:36 (B17)	04:26			
	16:08	68	11:28 (B1)	17:14			18:15			20:20		21:22	33	07:09 (B17)	22:07			
15	08:41		09:21 (B4)	07:45			06:34			06:12		05:02		06:36 (B17)	04:25			
	16:10	67	11:28 (B1)	17:16			18:17			20:22		21:24	31	07:07 (B17)	22:07			
16	08:40		09:20 (B4)	07:43			06:31			06:09		05:00		06:37 (B17)	04:25			
	16:12	69	11:28 (B1)	17:19			18:20			20:24	12	07:02 (B17)	21:25	29	07:06 (B17)	22:08		
17	08:39		09:21 (B4)	07:40			06:29			06:07		04:59		06:38 (B17)	04:25			
	16:14	69	11:29 (B1)	17:21			18:22			20:26	19	07:06 (B17)	21:27	26	07:04 (B17)	22:09		
18	08:37		09:21 (B4)	07:38		08:05 (B2)	06:26			06:04		04:57		06:40 (B17)	04:25			
	16:15	68	11:28 (B1)	17:23	7	08:12 (B2)	18:24			20:28	25	07:08 (B17)	21:29	24	07:04 (B17)	22:09		
19	08:36		09:21 (B4)	07:35		08:03 (B2)	06:23			06:02		04:55		06:41 (B17)	04:25			
	16:17	68	11:28 (B1)	17:25	13	08:16 (B2)	18:26			20:30	28	07:10 (B17)	21:31	21	07:02 (B17)	22:09		
20	08:35		09:22 (B4)	07:33		08:00 (B2)	06:21			05:59		04:53		06:43 (B17)	04:25			
	16:19	67	11:29 (B1)	17:28	17	08:17 (B2)	18:28			20:32	31	07:10 (B17)	21:33	17	07:00 (B17)	22:10		
21	08:33		09:22 (B4)	07:31		07:59 (B2)	06:18			05:57		04:51		06:45 (B17)	04:25			
	16:21	66	11:28 (B1)	17:30	20	08:19 (B2)	18:30			20:35	34	07:12 (B17)	21:35	12	06:57 (B17)	22:10		
22	08:32		09:22 (B4)	07:28		07:57 (B2)	06:15			05:54		04:50		06:51 (B17)	04:25			
	16:24	65	11:28 (B1)	17:32	23	08:20 (B2)	18:32			20:37	36	07:13 (B17)	21:37	2	06:53 (B17)	22:10		
23	08:30		09:22 (B4)	07:26		07:57 (B2)	06:13			05:52		04:48			04:25			
	16:26	63	11:27 (B1)	17:34	24	08:21 (B2)	18:34			20:39	37	07:13 (B17)	21:38		22:10			
24	08:29		09:24 (B4)	07:23		07:56 (B2)	06:10			05:49		04:47			04:26			
	16:28	61	11:28 (B1)	17:36	25	08:21 (B2)	18:36			20:41	39	07:14 (B17)	21:40		22:10			
25	08:27		09:24 (B4)	07:21		07:55 (B2)	06:07			05:47		04:45			04:26			
	16:30	59	11:27 (B1)	17:39	26	08:21 (B2)	18:38			20:43	41	07:15 (B17)	21:42		22:10			
26	08:26		09:25 (B4)	07:18		07:55 (B2)	06:05			05:44		04:44			04:27			
	16:32	56	11:27 (B1)	17:41	26	08:21 (B2)	18:40			20:45	41	07:14 (B17)	21:43		22:10			
27	08:24		09:26 (B4)	07:16		07:55 (B2)	06:02			05:42		04:42			04:27			
	16:34	53	11:26 (B1)	17:43	26	08:21 (B2)	18:43			20:47	42	07:15 (B17)	21:45		22:10			
28	08:22		09:27 (B4)	07:13		07:55 (B2)	05:59			05:39		04:41			04:28			
	16:36	49	11:25 (B1)	17:45	26	08:21 (B2)	18:45			20:49	43	07:15 (B17)	21:47		22:10			
29	08:20		09:29 (B4)				06:57			05:37		04:39			04:28			
	16:38	44	11:24 (B1)				19:47			20:51	44	07:15 (B17)	21:48		22:10			
30	08:18		09:31 (B4)				06:54			05:35		04:38			04:29			
	16:41	37	11:23 (B1)				19:49			20:53	44	07:15 (B17)	21:50		22:09			
31	08:17		09:35 (B4)				06:51					04:37						
	16:43	26	11:21 (B1)				19:51					21:51						
Potential sun hours	235			266			366			426		508			529			
Total, worst case	1775			260			118			516		725						
Sun reduction	0.13			0.20			0.41			0.50		0.57						
Oper. time red.	0.94			0.94			0.94			0.94		0.94						
Wind dir. red.	0.60			0.62			0.63			0.65		0.65						
Total reduction	0.07			0.11			0.24			0.30		0.34						
Total, real	130			30			28			154		247						

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 36	06:44 (B17) 07:20 (B17) 20:14	06:17 20:14 18:53	07:23 16:36	08:24 15:45 64
2	04:31 22:09	05:17 21:26 38	06:43 (B17) 07:21 (B17) 20:11	06:19 20:11 18:51	07:25 16:34	08:26 15:44 61
3	04:31 22:08	05:19 21:24 39	06:43 (B17) 07:22 (B17) 20:09	06:21 20:09 18:48	07:27 16:31	08:28 15:43 60
4	04:32 22:07	05:21 21:22 40	06:43 (B17) 07:23 (B17) 20:06	06:23 20:06 18:46	07:29 16:29	08:29 15:42 57
5	04:33 22:07	05:23 21:19 41	06:41 (B17) 07:22 (B17) 20:03	06:25 20:03 18:43	07:31 16:27	08:31 15:41 56
6	04:34 22:06	05:25 21:17 42	06:41 (B17) 07:23 (B17) 20:01	06:27 20:01 18:40	07:33 16:25	08:32 15:41 54
7	04:36 22:05	05:27 21:15 42	06:41 (B17) 07:23 (B17) 19:58	06:29 19:58 18:38	07:36 16:23 8	08:34 15:40 51
8	04:37 22:04	05:29 21:13 43	06:41 (B17) 07:24 (B17) 19:55	06:31 19:55 18:35	07:38 16:21 15	08:35 15:40 49
9	04:38 22:03	05:31 21:11 43	06:41 (B17) 07:24 (B17) 19:53	06:33 19:53 18:32	07:40 16:19 10	08:37 15:39 47
10	04:39 22:02	05:33 21:08 43	06:40 (B17) 07:23 (B17) 19:50	06:35 19:50 18:30	07:42 16:17 18	08:38 15:39 45
11	04:40 22:01	05:35 21:06 43	06:40 (B17) 07:23 (B17) 19:47	06:37 19:47 18:27	07:44 16:15 27	08:39 15:38 45
12	04:42 22:00	05:37 21:04 43	06:40 (B17) 07:23 (B17) 19:45	06:39 19:45 18:25	07:46 16:13 37	08:40 15:38 45
13	04:43 21:59	05:39 21:01 43	06:40 (B17) 07:23 (B17) 19:42	06:41 19:42 18:22	07:49 16:11 44	08:42 15:38 44
14	04:45 21:58	05:41 20:59 43	06:40 (B17) 07:23 (B17) 19:39	06:43 19:39 18:19	07:51 16:09 49	08:43 15:38 44
15	04:46 21:57	05:43 20:57 43	06:40 (B17) 07:23 (B17) 19:37	06:45 19:37 18:17	07:53 16:07 53	08:44 15:38 44
16	04:48 21:55	05:45 20:54 42	06:40 (B17) 07:22 (B17) 19:34	06:47 19:34 18:14	07:55 16:06 56	08:45 15:38 44
17	04:49 21:54	05:47 20:52 41	06:40 (B17) 07:21 (B17) 19:31	06:49 19:31 18:12	07:57 16:04 59	08:46 15:38 43
18	04:51 21:52	05:49 20:49 40	06:40 (B17) 07:20 (B17) 19:28	06:51 19:28 18:09	07:59 16:02 61	08:46 15:38 44
19	04:52 21:51	05:51 20:47 38	06:41 (B17) 07:19 (B17) 19:26	06:53 19:26 18:07	08:01 16:01 63	08:47 15:38 44
20	04:54 21:49	05:53 20:45 38	06:41 (B17) 07:19 (B17) 19:23	06:55 19:23 18:04	08:03 15:59 65	08:48 15:38 43
21	04:56 21:48	05:55 20:42 36	06:42 (B17) 07:18 (B17) 19:20	06:57 19:20 18:02	08:05 15:57 66	08:49 15:39 43
22	04:57 21:46	05:57 20:40 33	06:43 (B17) 07:16 (B17) 19:18	06:59 19:18 17:59	08:07 15:56 67	08:49 15:39 43
23	04:59 21:45	06:58 (B17) 07:06 (B17) 20:37	06:44 (B17) 07:15 (B17) 19:15	07:01 19:15 17:57	08:09 15:54 67	08:50 15:40 43
24	05:01 21:43	06:53 (B17) 07:12 (B17) 20:35	06:46 (B17) 07:13 (B17) 19:12	07:03 19:12 17:54	08:11 15:53 68	08:50 15:40 44
25	05:02 21:41	06:51 (B17) 07:13 (B17) 20:32	06:46 (B17) 07:10 (B17) 19:10	07:05 19:10 16:52	08:13 15:52 69	08:50 15:41 44
26	05:04 21:39	06:50 (B17) 07:15 (B17) 20:29	06:49 (B17) 07:07 (B17) 19:07	07:07 19:07 16:50	08:15 15:50 68	08:51 15:42 44
27	05:06 21:38	06:49 (B17) 07:16 (B17) 20:27	06:53 (B17) 07:03 (B17) 19:04	07:09 19:04 16:47	08:17 15:49 68	08:51 15:43 44
28	05:08 21:36	06:47 (B17) 07:17 (B17) 20:24	06:09 20:24 19:02	07:11 19:02 16:45	08:19 15:48 68	08:51 15:43 44
29	05:10 21:34	06:46 (B17) 07:18 (B17) 20:22	06:11 20:22 18:59	07:13 19:01 16:43	08:21 15:47 66	08:51 15:44 44
30	05:12 21:32	06:46 (B17) 07:19 (B17) 20:19	06:13 20:19 18:56	07:15 19:18 16:40	08:22 15:46 65	08:51 15:45 45
31	05:14 21:30	06:44 (B17) 07:19 (B17) 20:17	06:15 20:17 16:38	07:20 19:20 16:38	08:23 15:46 65	08:51 15:46 44
Potential sun hours	529	469	385	324	247	216
Total, worst case	246	1000			1214	1466
Sun reduction	0.49	0.50		0.26	0.08	0.07
Oper. time red.	0.94	0.94		0.94	0.94	0.94
Wind dir. red.	0.65	0.65		0.63	0.60	0.60
Total reduction	0.30	0.30		0.15	0.05	0.04
Total, real	73	298		53	55	57

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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) []

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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	08:50 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 (B12) 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 (B12) 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 (B12) 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	07:02 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:10 (B12) 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	08:33 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 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 22:02	05:04 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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	05:03 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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 (B12) 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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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	05:06 (B12) 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 (B12) 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 (B12) 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							20					
Sun reduction						0.56	0.49					
Oper. time red.						0.94	0.94					
Wind dir. red.						0.66	0.66					
Total reduction						0.35	0.31					
Total, real						79	6					

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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	08:13 (B1) 19:53	05:32 20:55	04:36 21:53
2	08:51 15:49	08:13 16:47	07:08 17:50	08:14 (B1) 19:55	05:30 20:58	04:35 21:54
3	08:50 15:50	08:11 16:50	07:06 17:52	08:17 (B1) 19:57	05:28 21:00	04:33 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	08:20 (B1) 19:59	05:26 21:02	04:32 21:57
5	08:49 15:53	08:07 16:54	07:00 17:56	08:27 (B1) 20:01	05:23 21:04	04:32 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:31 21:59
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	05:15 21:12	04:28 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:28 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04
12	08:44 16:04	07:52 17:10	06:42 18:11	06:20 20:16	06:45 (B17) 21:18	05:08 22:05
13	08:43 16:06	07:50 17:12	06:39 18:13	06:17 20:18	06:43 (B17) 21:20	05:06 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	06:46 (B17) 21:22	05:04 22:07
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	06:50 (B17) 21:24	05:02 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	06:53 (B17) 21:26	05:00 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	06:52 (B17) 21:27	04:59 22:09
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:54 (B17) 21:29	04:57 22:09
19	08:36 16:18	07:35 17:25	06:24 18:26	06:02 20:30	06:53 (B17) 21:31	04:55 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	06:54 (B17) 21:33	04:53 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:53 (B17) 21:35	04:52 22:10
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	06:52 (B17) 21:37	04:50 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:51 (B17) 21:38	04:48 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:50 (B17) 21:40	04:47 22:10
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	06:49 (B17) 21:42	04:45 22:10
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	06:48 (B17) 21:43	04:44 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:47 (B17) 21:45	04:42 22:10
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	06:46 (B17) 21:47	04:41 22:10
29	08:20 16:39		06:57 19:47	05:37 20:51	04:39 21:48	04:28 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		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Total, worst case		402	62	259		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.62	0.62	0.65		
Total reduction		0.12	0.24	0.31		
Total, real		47	15	79		

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	08:53 (B1) 09:04 (B1)	07:42 16:17
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:49 (B1) 09:06 (B1)	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:47 (B1) 09:08 (B1)	07:46 16:13
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:46 (B1) 09:09 (B1)	07:49 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	08:44 (B1) 09:10 (B1)	07:51 16:09
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:44 (B1) 09:11 (B1)	07:53 16:07
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	08:43 (B1) 09:11 (B1)	07:55 16:06
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:42 (B1) 09:11 (B1)	07:57 16:04
18	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	08:41 (B1) 09:11 (B1)	07:59 16:02
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:42 (B1) 09:12 (B1)	08:01 16:01
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:41 (B1) 09:11 (B1)	08:03 15:59
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:41 (B1) 09:10 (B1)	08:05 15:58
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:41 (B1) 09:10 (B1)	08:07 15:56
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:42 (B1) 09:10 (B1)	08:09 15:55
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:43 (B1) 09:08 (B1)	08:11 15:53
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	07:43 (B1) 08:07 (B1)	08:13 15:52
26	05:04 21:39	06:05 20:30	07:07 19:07	08:09 16:50	07:45 (B1) 08:07 (B1)	08:15 15:51
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 16:47	07:46 (B1) 08:05 (B1)	08:17 15:49
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 16:45	07:47 (B1) 08:02 (B1)	08:19 15:48
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 16:43	07:51 (B1) 08:00 (B1)	08:21 15:47
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 16:40	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		260		472		
Sun reduction		0.50		0.26		
Oper. time red.		0.94		0.94		
Wind dir. red.		0.65		0.62		
Total reduction		0.30		0.15		
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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:50 15:48	08:15 16:45	07:11 17:47	07:47 (B12) 19:53	07:27 (B11) 20:55	20:20 (B22) 21:52
2	08:50 15:49	08:13 16:47	07:08 17:50	07:46 (B12) 19:55	07:26 (B11) 20:57	20:17 (B22) 21:54
3	08:50 15:51	08:11 16:50	07:05 17:52	07:46 (B12) 19:57	07:24 (B11) 20:59	20:15 (B22) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	07:46 (B12) 19:59	07:24 (B11) 21:01	20:14 (B22) 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	07:45 (B12) 20:01	07:23 (B11) 21:03	20:13 (B22) 21:58
6	08:49 15:55	08:05 16:56	16:01 (B25) 17:58	07:46 (B12) 20:03	07:23 (B11) 21:05	20:12 (B22) 21:59
7	08:48 15:56	08:02 16:59	15:58 (B25) 18:00	07:46 (B12) 20:05	07:23 (B11) 21:08	20:12 (B22) 22:00
8	08:47 15:58	08:00 17:01	15:56 (B25) 18:03	07:46 (B12) 20:07	07:22 (B11) 21:10	20:11 (B22) 22:01
9	08:47 15:59	07:58 17:03	15:55 (B25) 18:05	07:47 (B12) 20:09	07:22 (B11) 21:12	20:11 (B22) 22:02
10	08:46 16:01	07:56 17:05	15:54 (B25) 18:07	07:47 (B12) 20:12	07:22 (B11) 21:14	20:11 (B22) 22:03
11	08:45 16:03	07:54 17:08	15:53 (B25) 18:09	07:48 (B12) 20:14	07:23 (B11) 21:16	20:10 (B22) 22:04
12	08:44 16:04	07:52 17:10	15:52 (B25) 18:11	07:49 (B12) 20:16	07:22 (B11) 21:18	20:10 (B22) 22:05
13	08:43 16:06	07:49 17:12	15:52 (B25) 18:13	07:53 (B12) 20:18	07:23 (B11) 21:19	20:10 (B22) 22:06
14	08:42 16:08	07:47 17:14	15:51 (B25) 18:15	07:53 (B12) 20:20	07:24 (B11) 21:21	20:11 (B22) 22:06
15	08:41 16:10	07:45 17:16	15:51 (B25) 18:17	07:55 (B12) 20:22	07:25 (B11) 21:23	20:12 (B22) 22:07
16	08:40 16:12	07:42 17:19	15:50 (B25) 18:19	07:56 (B12) 20:24	07:26 (B11) 21:25	20:12 (B22) 22:08
17	08:39 16:14	07:40 17:21	15:51 (B25) 18:22	07:57 (B12) 20:26	07:27 (B11) 21:27	20:13 (B22) 22:08
18	08:37 16:16	07:38 17:23	15:50 (B25) 18:24	07:58 (B12) 20:28	07:30 (B11) 21:29	20:14 (B22) 22:09
19	08:36 16:18	07:35 17:25	15:51 (B25) 18:26	07:59 (B12) 20:30	07:31 (B11) 21:31	20:14 (B22) 22:09
20	08:35 16:20	07:33 17:28	15:51 (B25) 18:28	07:59 (B12) 20:32	07:32 (B11) 21:33	20:15 (B22) 22:09
21	08:33 16:22	07:30 17:30	15:52 (B25) 18:30	07:59 (B12) 20:34	07:33 (B11) 21:35	20:16 (B22) 22:10
22	08:32 16:24	07:28 17:32	15:52 (B25) 18:32	07:59 (B12) 20:37	07:34 (B11) 21:36	20:17 (B22) 22:10
23	08:30 16:26	07:26 17:34	15:52 (B25) 18:34	07:59 (B12) 20:39	07:35 (B11) 21:38	20:18 (B22) 22:10
24	08:29 16:28	07:23 17:36	15:51 (B25) 18:36	07:59 (B12) 20:41	07:36 (B11) 21:40	20:19 (B22) 22:10
25	08:27 16:30	07:21 17:39	15:51 (B25) 18:38	07:59 (B12) 20:43	07:37 (B11) 21:41	20:20 (B22) 22:10
26	08:25 16:32	07:18 17:41	15:51 (B25) 18:40	07:59 (B12) 20:45	07:38 (B11) 21:43	20:21 (B22) 22:10
27	08:24 16:34	07:16 17:43	15:51 (B25) 18:42	07:59 (B12) 20:47	07:39 (B11) 21:44	20:22 (B22) 22:10
28	08:22 16:36	07:13 17:45	15:51 (B25) 18:45	07:59 (B12) 20:49	07:40 (B11) 21:46	20:23 (B22) 22:10
29	08:20 16:39	07:11 17:47	15:51 (B25) 19:47	07:59 (B12) 20:51	07:41 (B11) 21:48	20:24 (B22) 22:10
30	08:18 16:41	07:09 17:49	15:51 (B25) 19:49	07:59 (B12) 20:53	07:42 (B11) 21:49	20:25 (B22) 22:10
31	08:16 16:43	07:07 17:51	15:51 (B25) 19:51	07:59 (B12) 20:55	07:43 (B11) 21:51	20:26 (B22) 22:10
Potential sun hours	235	266	366	426	508	528
Total, worst case		719	708	550	364	679
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.66	0.64	0.65	0.63	0.67
Total reduction		0.13	0.25	0.31	0.34	0.35
Total, real		90	176	170	122	239

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

July		August		September		October		November		December	
1	04:30	05:15 (B18)	05:16	20:21 (B22)	06:17	07:22 (B11)	07:17	08:30 (B12)	07:22	15:24 (B25)	08:24
2	22:09	24 05:39 (B18)	21:28	22 20:43 (B22)	20:14	33 07:55 (B11)	18:53	36 18:03 (B24)	16:36	26 15:50 (B25)	15:45
2	04:31	05:16 (B18)	05:17	20:21 (B22)	06:19	07:21 (B11)	07:19	08:28 (B12)	07:25	15:25 (B25)	08:26
3	22:08	23 05:39 (B18)	21:26	22 20:43 (B22)	20:11	34 07:55 (B11)	18:51	41 18:03 (B24)	16:34	23 15:48 (B25)	15:44
3	04:32	05:16 (B18)	05:19	20:21 (B22)	06:21	07:20 (B11)	07:21	08:26 (B12)	07:27	15:26 (B25)	08:27
4	22:08	23 05:39 (B18)	21:24	22 20:43 (B22)	20:09	35 07:55 (B11)	18:48	45 18:03 (B24)	16:31	21 15:47 (B25)	15:43
4	04:33	05:17 (B18)	05:21	20:21 (B22)	06:23	07:19 (B11)	07:23	08:24 (B12)	07:29	15:28 (B25)	08:29
5	22:07	22 05:39 (B18)	21:21	22 20:43 (B22)	20:06	35 07:54 (B11)	18:45	49 18:03 (B24)	16:29	17 15:45 (B25)	15:42
5	04:34	05:18 (B18)	05:23	20:21 (B22)	06:25	07:19 (B11)	07:25	08:23 (B12)	07:31	15:31 (B25)	08:31
6	22:06	20 05:38 (B18)	21:19	21 20:42 (B22)	20:03	35 07:54 (B11)	18:43	50 18:03 (B24)	16:27	11 15:42 (B25)	15:42
6	04:35	05:18 (B18)	05:25	20:21 (B22)	06:27	07:18 (B11)	07:27	08:22 (B12)	07:33		08:32
7	22:06	20 05:38 (B18)	21:17	21 20:42 (B22)	20:01	36 07:54 (B11)	18:40	50 18:02 (B24)	16:25		15:41
7	04:36	05:19 (B18)	05:27	20:22 (B22)	06:29	07:18 (B11)	07:29	08:21 (B12)	07:35		08:34
8	22:05	19 05:38 (B18)	21:15	19 20:41 (B22)	19:58	35 07:53 (B11)	18:38	50 18:01 (B24)	16:23		15:40
8	04:37	05:20 (B18)	05:29	20:23 (B22)	06:31	07:18 (B11)	07:31	08:21 (B12)	07:38		08:35
9	22:04	17 05:37 (B18)	21:13	17 20:40 (B22)	19:55	35 07:53 (B11)	18:35	49 18:00 (B24)	16:21		15:40
9	04:38	05:21 (B18)	05:31	20:24 (B22)	06:33	07:19 (B11)	07:33	08:20 (B12)	07:40		08:36
10	22:03	15 05:36 (B18)	21:11	14 20:38 (B22)	19:53	33 07:52 (B11)	18:32	49 17:59 (B24)	16:19		15:39
10	04:39	05:22 (B18)	05:33	20:24 (B22)	06:35	07:19 (B11)	07:36	08:21 (B12)	07:42		08:38
11	22:02	13 05:35 (B18)	21:08	11 20:35 (B22)	19:50	32 07:51 (B11)	18:30	46 17:58 (B24)	16:17		15:39
11	04:41	05:24 (B18)	05:35	20:26 (B22)	06:37	07:19 (B11)	07:38	08:20 (B12)	07:44		08:39
12	22:01	9 05:33 (B18)	21:06	7 20:33 (B22)	19:47	31 07:50 (B11)	18:27	43 17:56 (B24)	16:15		15:38
12	04:42	05:27 (B18)	05:37		06:39	07:20 (B11)	07:40	08:20 (B12)	07:46		08:40
13	22:00	5 05:32 (B18)	21:04		19:45	29 07:49 (B11)	18:25	36 17:53 (B24)	16:13		15:38
13	04:43		05:39		06:41	07:21 (B11)	07:42	08:21 (B12)	07:48		08:41
14	21:59		21:01		19:42	26 07:47 (B11)	18:22	27 16:40 (B25)	16:11		15:38
14	04:45		05:41		06:43	07:23 (B11)	07:44	08:21 (B12)	07:50		08:42
15	21:58		20:59		19:39	22 07:45 (B11)	18:19	39 16:46 (B25)	16:09		15:38
15	04:46		05:43		06:45	07:24 (B11)	07:46	08:22 (B12)	07:53		08:43
16	21:56		20:57		19:37	19 07:43 (B11)	18:17	41 16:48 (B25)	16:07		15:38
16	04:48		05:45		06:47	07:27 (B11)	07:48	08:24 (B12)	07:55		08:44
17	21:55		20:54		19:34	12 07:39 (B11)	18:14	43 16:51 (B25)	16:06		15:38
17	04:49		05:47		06:49		07:50	08:25 (B12)	07:57		08:45
18	21:54		20:52		19:31		18:12	41 16:51 (B25)	16:04		15:38
18	04:51		05:49		06:51		07:52	08:27 (B12)	07:59		08:46
19	21:52		20:49		19:28		18:09	39 16:52 (B25)	16:02		15:38
19	04:52		05:51		06:53		07:54	16:23 (B25)	08:01		08:47
20	21:51		20:47		19:26		18:07	29 16:52 (B25)	16:01		15:38
20	04:54		05:53		06:55		07:56	16:23 (B25)	08:03		08:48
21	21:49		20:44		19:23		18:04	31 16:54 (B25)	15:59		15:39
21	04:56		05:55		06:57		07:59	16:22 (B25)	08:05		08:48
22	21:48		20:42		19:20		18:02	32 16:54 (B25)	15:58		15:39
22	04:57	20:29 (B22)	05:57		06:59		08:01	16:21 (B25)	08:07		08:49
23	21:46	7 20:36 (B22)	20:39		19:18		17:59	33 16:54 (B25)	15:56		15:39
23	04:59	20:27 (B22)	05:59		07:01		08:03	16:21 (B25)	08:09		08:49
24	21:44	10 20:37 (B22)	20:37		19:15		17:57	33 16:54 (B25)	15:55		15:40
24	05:01	20:26 (B22)	06:01		07:03		08:05	16:21 (B25)	08:11		08:50
25	21:43	13 20:39 (B22)	20:34	5 07:43 (B11)	19:12		17:54	33 16:54 (B25)	15:53		15:40
25	05:03	20:24 (B22)	06:03		07:05		07:07	15:20 (B25)	08:13		08:50
26	21:41	15 20:39 (B22)	20:32	15 07:42 (B11)	19:10		16:52	34 15:54 (B25)	15:52		15:41
26	05:04	20:23 (B22)	06:05		07:07		07:09	15:20 (B25)	08:15		08:50
27	21:39	18 20:41 (B22)	20:29	20 07:49 (B11)	19:07		16:50	33 15:53 (B25)	15:51		15:42
27	05:06	20:23 (B22)	06:07		07:09		07:12	15:21 (B25)	08:17		08:51
28	21:37	19 20:42 (B22)	20:27	24 07:51 (B11)	19:04	5 17:56 (B24)	16:47	32 15:53 (B25)	15:49		15:43
28	05:08	20:22 (B22)	06:09		07:11		07:14	15:21 (B25)	08:19		08:51
29	21:35	20 20:42 (B22)	20:24	26 07:52 (B11)	19:01	13 17:59 (B24)	16:45	32 15:53 (B25)	15:48		15:44
29	05:10	20:22 (B22)	06:11		07:13		07:16	15:22 (B25)	08:20		08:51
30	21:34	20 20:42 (B22)	20:22	29 07:53 (B11)	18:59	17 18:01 (B24)	16:43	31 15:53 (B25)	15:47		15:45
30	05:12	20:22 (B22)	06:13		07:15		07:18	15:22 (B25)	08:22		08:51
31	21:32	21 20:43 (B22)	20:19	31 07:54 (B11)	18:56	26 18:03 (B24)	16:40	30 15:52 (B25)	15:46		15:46
31	05:14	20:21 (B22)	06:15		07:22 (B11)		07:20	15:22 (B25)			08:51
Potential sun hours	529	23 20:44 (B22)	20:16	32 07:54 (B11)			16:38	28 15:50 (B25)			15:47
Total, worst case			469		385		324		247		216
Sun reduction	0.49				543		1185		98		
Oper. time red.	0.94				0.43		0.26		0.08		
Wind dir. red.	0.65				0.94		0.94		0.94		
Total reduction	0.30				0.65		0.65		0.67		
Total, real	114				0.26		0.16		0.05		
					143		188		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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:50 15:48	08:15 16:45	07:11 17:47	07:49 (B12) 19:53	07:28 (B11) 20:55	20:17 (B22) 21:52
2	08:50 15:49	08:13 16:47	07:08 17:50	07:48 (B12) 19:55	07:27 (B11) 20:57	20:14 (B22) 21:54
3	08:50 15:51	08:11 16:50	07:05 17:52	07:48 (B12) 19:57	07:25 (B11) 20:59	20:13 (B22) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	07:47 (B12) 19:59	07:25 (B11) 21:01	20:12 (B22) 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	07:47 (B12) 20:01	07:24 (B11) 21:03	20:11 (B22) 21:58
6	08:49 15:55	08:05 16:56	16:02 (B25) 17:58	07:48 (B12) 20:03	07:24 (B11) 21:05	20:11 (B22) 21:59
7	08:48 15:56	08:02 16:59	16:00 (B25) 18:00	07:47 (B12) 20:05	07:23 (B11) 21:08	20:10 (B22) 22:00
8	08:47 15:58	08:00 17:01	15:57 (B25) 18:03	07:48 (B12) 20:07	07:23 (B11) 21:10	20:10 (B22) 22:01
9	08:47 15:59	07:58 17:03	15:56 (B25) 18:05	07:49 (B12) 20:09	07:23 (B11) 21:12	20:10 (B22) 22:02
10	08:46 16:01	07:56 17:05	15:56 (B25) 18:07	07:49 (B12) 20:12	07:23 (B11) 21:14	20:09 (B22) 22:03
11	08:45 16:03	07:54 17:08	15:54 (B25) 18:09	07:50 (B12) 20:14	07:24 (B11) 21:16	20:09 (B22) 22:04
12	08:44 16:04	07:52 17:10	15:54 (B25) 18:11	07:52 (B12) 20:16	07:23 (B11) 21:18	20:09 (B22) 22:05
13	08:43 16:06	07:49 17:12	15:54 (B25) 18:13	07:56 (B12) 20:18	07:25 (B11) 21:19	20:10 (B22) 22:06
14	08:42 16:08	07:47 17:14	15:52 (B25) 18:15	17:04 (B24) 20:20	07:25 (B11) 21:21	20:11 (B22) 22:06
15	08:41 16:10	07:45 17:16	15:53 (B25) 18:17	17:05 (B24) 20:22	07:26 (B11) 21:23	20:11 (B22) 22:07
16	08:40 16:12	07:42 17:19	15:52 (B25) 18:19	17:09 (B24) 20:24	07:27 (B11) 21:25	20:11 (B22) 22:08
17	08:39 16:14	07:40 17:21	15:52 (B25) 18:22	17:16 (B24) 20:26	07:29 (B11) 21:27	20:13 (B22) 22:08
18	08:37 16:16	07:38 17:23	15:52 (B25) 18:24	06:04 20:28	07:31 (B11) 21:29	20:13 (B22) 22:09
19	08:36 16:18	07:35 17:25	15:52 (B25) 18:26	06:02 20:30	07:37 (B11) 21:31	20:14 (B22) 22:09
20	08:35 16:20	07:33 17:28	15:52 (B25) 18:28	06:07 20:32	07:39 (B11) 21:33	20:17 (B22) 22:09
21	08:33 16:22	07:30 17:30	15:53 (B25) 18:30	05:59 20:34	04:53 21:35	20:25 (B22) 22:10
22	08:32 16:24	07:28 17:32	15:53 (B25) 18:32	05:54 20:37	04:50 21:36	20:26 (B22) 22:10
23	08:30 16:26	07:26 17:34	15:53 (B25) 18:34	05:52 20:39	04:48 21:38	20:26 (B22) 22:10
24	08:29 16:28	07:23 17:36	15:52 (B25) 18:36	05:49 20:41	04:47 21:40	20:26 (B22) 22:10
25	08:27 16:30	07:21 17:39	15:52 (B25) 18:38	05:47 20:43	04:45 21:41	20:26 (B22) 22:10
26	08:25 16:32	07:18 17:41	15:52 (B25) 18:40	05:44 20:45	04:44 21:43	20:26 (B22) 22:10
27	08:24 16:34	07:16 17:43	15:52 (B25) 18:42	06:39 (B11) 20:47	04:42 21:45	20:26 (B22) 22:10
28	08:22 16:36	07:13 17:45	15:52 (B25) 18:45	06:35 (B11) 20:49	04:41 21:46	20:26 (B22) 22:10
29	08:20 16:39	07:11 17:47	15:52 (B25) 19:47	07:33 (B11) 20:51	04:39 21:48	20:26 (B22) 22:09
30	08:18 16:41	07:09 17:49	15:52 (B25) 19:49	07:31 (B11) 20:53	04:38 21:49	20:26 (B22) 22:09
31	08:16 16:43	07:07 17:51	15:52 (B25) 19:51	07:29 (B11) 20:58	04:37 21:51	20:26 (B22) 22:09
Potential sun hours	235	266	366	426	508	528
Total, worst case		721	705	554	352	635
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.66	0.64	0.65	0.63	0.67
Total reduction		0.13	0.25	0.31	0.34	0.35
Total, real		91	176	171	118	224

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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Calculated:

10/04/2024 05:50/4.0.531

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) []

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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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July			August			September			October			November			December		
1	04:30	05:15 (B18)	05:16	20:20 (B22)	06:17	07:23 (B11)	07:17	08:33 (B12)	07:22	15:25 (B25)	08:24							
2	22:09	22	05:37 (B18)	21:28	22	20:42 (B22)	20:14	33	07:56 (B11)	18:53	33	18:03 (B24)	16:36	26	15:51 (B25)	15:45		
3	04:31	05:15 (B18)	05:17	20:20 (B22)	06:19	07:22 (B11)	07:19	08:30 (B12)	07:25	15:26 (B25)	08:26							
4	22:08	22	05:37 (B18)	21:26	22	20:42 (B22)	20:11	34	07:56 (B11)	18:51	40	18:03 (B24)	16:34	23	15:49 (B25)	15:44		
5	04:32	05:16 (B18)	05:19	20:20 (B22)	06:21	07:21 (B11)	07:21	08:28 (B12)	07:27	15:27 (B25)	08:27							
6	22:08	21	05:37 (B18)	21:24	22	20:42 (B22)	20:09	36	07:57 (B11)	18:48	44	18:03 (B24)	16:31	20	15:47 (B25)	15:43		
7	04:33	05:17 (B18)	05:21	20:20 (B22)	06:23	07:20 (B11)	07:23	08:26 (B12)	07:29	15:30 (B25)	08:29							
8	22:07	20	05:37 (B18)	21:21	22	20:42 (B22)	20:06	36	07:56 (B11)	18:45	48	18:03 (B24)	16:29	16	15:46 (B25)	15:42		
9	04:34	05:18 (B18)	05:23	20:19 (B22)	06:25	07:20 (B11)	07:25	08:25 (B12)	07:31	15:33 (B25)	08:31							
10	22:06	19	05:37 (B18)	21:19	22	20:41 (B22)	20:03	35	07:55 (B11)	18:43	50	18:03 (B24)	16:27	9	15:42 (B25)	15:42		
11	04:35	05:19 (B18)	05:25	20:20 (B22)	06:27	07:19 (B11)	07:27	08:24 (B12)	07:33		08:32							
12	22:06	18	05:37 (B18)	21:17	21	20:41 (B22)	20:01	36	07:55 (B11)	18:40	50	18:02 (B24)	16:25					
13	04:36	05:19 (B18)	05:27	20:20 (B22)	06:29	07:19 (B11)	07:29	08:23 (B12)	07:35		08:34							
14	22:05	17	05:36 (B18)	21:15	21	20:41 (B22)	19:58	36	07:55 (B11)	18:38	51	18:02 (B24)	16:23					
15	04:37	05:20 (B18)	05:29	20:21 (B22)	06:31	07:19 (B11)	07:31	08:22 (B12)	07:38		08:35							
16	22:04	15	05:35 (B18)	21:13	19	20:40 (B22)	19:55	35	07:54 (B11)	18:35	51	18:01 (B24)	16:21					
17	04:38	05:22 (B18)	05:31	20:22 (B22)	06:33	07:19 (B11)	07:33	08:22 (B12)	07:40		08:36							
18	22:03	12	05:34 (B18)	21:11	16	20:38 (B22)	19:53	34	07:53 (B11)	18:32	49	17:59 (B24)	16:19					
19	04:39	05:23 (B18)	05:33	20:22 (B22)	06:35	07:20 (B11)	07:36	08:22 (B12)	07:42		08:38							
20	22:02	10	05:33 (B18)	21:08	13	20:35 (B22)	19:50	33	07:53 (B11)	18:30	47	17:59 (B24)	16:17					
21	04:41	05:26 (B18)	05:35	20:23 (B22)	06:37	07:20 (B11)	07:38	08:22 (B12)	07:44		08:39							
22	22:01	4	05:30 (B18)	21:06	10	20:33 (B22)	19:47	32	07:52 (B11)	18:27	43	17:56 (B24)	16:15					
23	04:42		05:37	20:26 (B22)	06:39	07:21 (B11)	07:40	08:22 (B12)	07:46		08:40							
24	22:00		21:04	5	20:31 (B22)	19:45	29	07:50 (B11)	18:25	36	17:53 (B24)	16:13						
25	04:43		05:39		06:41	07:22 (B11)	07:42	08:22 (B12)	07:48		08:41							
26	21:59		21:01		19:42	07:49 (B11)	18:22	27	08:49 (B12)	16:11								
27	04:45		05:41		06:43	07:23 (B11)	07:44	08:22 (B12)	07:50		08:42							
28	21:58		20:59		19:39	07:47 (B11)	18:19	39	16:47 (B25)	16:09								
29	04:46		05:43		06:45	07:25 (B11)	07:46	08:23 (B12)	07:53		08:43							
30	21:56		20:57		19:37	07:45 (B11)	18:17	43	16:49 (B25)	16:07								
31	04:48		05:45		06:47	07:27 (B11)	07:48	08:24 (B12)	07:55		08:44							
32	21:55		20:54		19:34	07:41 (B11)	18:14	44	16:51 (B25)	16:06								
33	04:49		05:47		06:49		07:50	08:25 (B12)	07:57		08:45							
34	21:54		20:52		19:31		18:12	44	16:52 (B25)	16:04								
35	04:51		05:49		06:51		07:52	08:27 (B12)	07:59		08:46							
36	21:52		20:49		19:28		18:09	43	16:53 (B25)	16:02								
37	04:52		05:51		06:53		07:54	08:30 (B12)	08:01		08:47							
38	21:51		20:47		19:26		18:07	37	16:53 (B25)	16:01								
39	04:54		05:53		06:55		07:56	16:24 (B25)	08:03		08:48							
40	21:49		20:44		19:23		18:04	31	16:55 (B25)	15:59								
41	04:56		05:55		06:57		07:59		16:23 (B25)	08:05								
42	21:48		20:42		19:20		18:02	32	16:55 (B25)	15:58								
43	04:57		05:57		06:59		08:01		16:22 (B25)	08:07								
44	21:46		20:39		19:18		17:59	33	16:55 (B25)	15:56								
45	04:59		05:59		07:01		08:03		16:22 (B25)	08:09								
46	21:44	5	20:33 (B22)	20:37	19:15		17:57	33	16:55 (B25)	15:55								
47	05:01		06:01		07:03		08:05		16:22 (B25)	08:11								
48	21:43	10	20:36 (B22)	20:34	5	07:44 (B11)	19:12	33	16:55 (B25)	15:53								
49	05:03		06:03		07:05		07:07		15:21 (B25)	08:13								
50	21:41	13	20:37 (B22)	20:32	15	07:48 (B11)	19:10	34	15:55 (B25)	15:52								
51	05:04		06:05		07:07		07:09		15:21 (B25)	08:15								
52	21:39	16	20:39 (B22)	20:29	20	07:50 (B11)	19:07	33	15:54 (B25)	15:51								
53	05:06		06:07		07:09		07:12		15:22 (B25)	08:17								
54	21:37	17	20:40 (B22)	20:27	24	07:52 (B11)	19:04	32	15:54 (B25)	15:49								
55	05:08		06:09		07:11		17:47 (B24)	07:14	15:22 (B25)	08:19								
56	21:35	19	20:40 (B22)	20:24	26	07:53 (B11)	19:01	12	17:59 (B24)	16:45	31	15:53 (B25)	15:48					
57	05:10		06:11		07:13		17:45 (B24)	07:16	15:23 (B25)	08:20								
58	21:34	20	20:41 (B22)	20:22	28	07:54 (B11)	18:59	15	18:00 (B24)	16:43	31	15:54 (B25)	15:47					
59	05:12		06:13		07:15		17:44 (B24)	07:18	15:23 (B25)	08:22								
60	21:32	21	20:42 (B22)	20:19	31	07:55 (B11)	18:56	18	18:02 (B24)	16:40	29	15:52 (B25)	15:46					
61	05:14		06:15		07:23 (B11)		07:20		15:24 (B25)		08:51							
62	21:30	21	20:42 (B22)	20:16	33	07:56 (B11)		27	16:38	15:51 (B25)	15:47							
Potential sun hours	529		469		385		324		247		216							
Total, worst case	322		397		539		1198		94									
Sun reduction	0.49		0.50		0.43		0.26		0.08									
Oper. time red.	0.94		0.94		0.94		0.94		0.94									
Wind dir. red.	0.65		0.64		0.65		0.65		0.67									
Total reduction	0.30		0.30		0.26		0.16		0.05									
Total, real	97		119		142		190		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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Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March	April			May			June		
1	08:51		12:31 (B22)	08:15		07:11		06:49			05:32		06:29 (B1)	04:36		
	15:48	16	12:47 (B22)	16:45		17:47		19:53			20:55	34	07:03 (B1)	21:53		
2	08:50		12:32 (B22)	08:13		07:08		06:46			05:30		06:29 (B1)	04:35		
	15:49	15	12:47 (B22)	16:47		17:50		19:55			20:57	34	07:03 (B1)	21:54		
3	08:50		12:33 (B22)	08:11		07:06		06:43			05:28		06:29 (B1)	04:34		
	15:51	13	12:46 (B22)	16:50		17:52		19:57			21:00	34	07:03 (B1)	21:55		
4	08:50		12:34 (B22)	08:09		07:03		06:41			05:26		06:30 (B1)	04:33		
	15:52	11	12:45 (B22)	16:52		17:54		19:59			21:02	32	07:02 (B1)	21:57		
5	08:49		12:37 (B22)	08:07		07:00		06:38			05:23		06:30 (B1)	04:32		
	15:53	8	12:45 (B22)	16:54		17:56		20:01			21:04	32	07:02 (B1)	21:58		
6	08:49			08:05		06:58		06:35			05:21		06:31 (B1)	04:31		
	15:55			16:56		17:58		20:03			21:06	30	07:01 (B1)	21:59		
7	08:48			08:03		06:55		06:33			05:19		06:31 (B1)	04:30		
	15:56			16:59		18:00		20:05			21:08	29	07:00 (B1)	22:00		
8	08:48			08:00		06:53		06:30			05:17		06:32 (B1)	04:29		
	15:58			17:01		18:03		20:08			21:10	27	06:59 (B1)	22:01		
9	08:47			07:58		06:50		06:27			05:15		06:33 (B1)	04:28		
	15:59			17:03		18:05		20:10			21:12	25	06:58 (B1)	22:02		
10	08:46			07:56		06:47		06:25			05:13		06:34 (B1)	04:28		
	16:01			17:05		18:07		20:12			21:14	23	06:57 (B1)	22:03		
11	08:45			07:54		06:45		06:22			05:10		06:35 (B1)	04:27		
	16:03			17:08		18:09		20:14			21:16	20	06:55 (B1)	22:04		
12	08:44			07:52		06:42		06:20			05:08		06:36 (B1)	04:27		
	16:04			17:10		18:11		20:16			21:18	17	06:53 (B1)	22:05		
13	08:43			07:49		06:39		06:17			05:06		06:38 (B1)	04:26		
	16:06			17:12		18:13		20:18			21:20	13	06:51 (B1)	22:06		
14	08:42			07:47		06:37		06:14			05:04		06:44 (B1)	04:26		
	16:08			17:14		18:15		20:20			21:22	3	06:47 (B1)	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			05:01			04:25		
	16:12			17:19		18:20		20:24			21:25			22:08		
17	08:39			07:40		06:29		06:07			04:59			04:25		
	16:14			17:21		18:22		20:26	13	06:43 (B1)	21:27			22:08		
18	08:37			07:38		06:26		06:04			04:57			04:25		
	16:16			17:23		18:24		20:28	19	06:58 (B1)	21:29			22:09		
19	08:36			07:35		06:24		06:02			04:55			04:25		
	16:18			17:25		18:26		20:30	22	07:00 (B1)	21:31			22:09		
20	08:35			07:33		06:21		05:59			04:53			04:25		
	16:20			17:28		18:28		20:33	26	07:01 (B1)	21:33			22:10		
21	08:33			07:31		06:18		05:57			04:52			04:25		
	16:22			17:30		18:30		20:35	28	07:02 (B1)	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	30	07:03 (B1)	21:37			22:10		
23	08:30			07:26		06:13		05:52			04:48			04:26		
	16:26			17:34		18:34		20:39	31	07:03 (B1)	21:38			22:10		
24	08:29			07:23		06:10		05:49			04:47			04:26		
	16:28			17:37		18:36		20:41	33	07:04 (B1)	21:40			22:10		
25	08:27			07:21		06:07		05:47			04:45			04:26		
	16:30			17:39		18:38		20:43	33	07:04 (B1)	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	34	07:04 (B1)	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	35	07:04 (B1)	21:45			22:10		
28	08:22			07:13		05:59		05:40			04:41			04:28		
	16:36			17:45		18:45		20:49	35	07:04 (B1)	21:47			22:10		
29	08:20					06:57		05:37			04:39			04:28		
	16:39					19:47		20:51	36	07:05 (B1)	21:48			22:10		
30	08:18					06:54		05:35			04:38			04:29		
	16:41					19:49		20:53	35	07:04 (B1)	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		63						410			353					
Sun reduction		0.13						0.50			0.57					
Oper. time red.		0.94						0.94			0.94					
Wind dir. red.		0.64						0.65			0.65					
Total reduction		0.08						0.31			0.35					
Total, real		5						126			123					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	06:46 (B1) 18	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	06:45 (B1) 21	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	06:44 (B1) 23	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	04:33 22:07	05:21 21:22	06:43 (B1) 26	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	04:34 22:07	05:23 21:19	06:41 (B1) 28	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:40 (B1) 30	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	06:40 (B1) 31	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	06:39 (B1) 32	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	06:39 (B1) 33	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	06:38 (B1) 33	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:37 (B1) 35	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	04:42 22:00	05:37 21:04	06:37 (B1) 35	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	04:43 21:59	05:39 21:01	06:37 (B1) 35	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:37 (B1) 35	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:38
15	04:46 21:57	05:43 20:57	06:37 (B1) 35	06:45 19:37	07:46 18:17	07:53 16:07	08:44 15:38
16	04:48 21:55	05:45 20:54	06:37 (B1) 35	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:36 (B1) 34	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:37 (B1) 33	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38
19	04:52 21:51	05:51 20:47	06:37 (B1) 32	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	06:38 (B1) 31	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38
21	04:56 21:48	05:55 20:42	06:38 (B1) 30	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	04:57 21:46	05:57 20:40	06:39 (B1) 28	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	04:59 21:45	05:59 20:37	06:40 (B1) 25	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	06:42 (B1) 21	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:40
25	05:03 21:41	06:03 20:32	06:43 (B1) 18	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	05:04 21:39	06:05 20:29	06:45 (B1) 12	07:07 19:07	08:15 16:50	08:15 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	06:57 (B1)	07:09 19:04	08:17 16:47	08:17 15:49	08:51 15:43
28	05:08 21:36	06:09 20:24	06:09	07:11 19:02	08:19 16:45	08:19 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	06:11	07:13 18:59	08:21 16:43	08:21 15:47	08:51 15:44
30	05:12 21:32	06:52 (B1) 07:00 (B1)	06:13 20:19	07:15 18:56	08:22 16:40	08:22 15:46	08:51 15:46
31	05:14 21:30	06:49 (B1) 07:03 (B1)	06:15 20:17		07:20 16:38	08:51 15:47	12:30 (B22) 12:48 (B22)
Potential sun hours	529	469		385	324	247	216
Total, worst case	22	749					474
Sun reduction	0.49	0.50					0.07
Oper. time red.	0.94	0.94					0.94
Wind dir. red.	0.65	0.65					0.64
Total reduction	0.30	0.31					0.04
Total, real	7	228					20

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March	April	May	June
1	08:51	14:04 (B22)	08:15	14:04 (B22)	07:11	06:49			05:32	04:36
	15:48	25	14:29 (B22)	16:45	45	14:49 (B22)	17:47	19:53	20:55	21:52
2	08:50	14:04 (B22)	08:13	14:05 (B22)	07:08	06:46			05:30	04:35
	15:49	26	14:30 (B22)	16:47	44	14:49 (B22)	17:50	19:55	20:57	21:54
3	08:50	14:04 (B22)	08:11	14:05 (B22)	07:06	06:43			05:28	04:34
	15:51	27	14:31 (B22)	16:50	44	14:49 (B22)	17:52	19:57	20:59	21:55
4	08:50	14:03 (B22)	08:09	14:06 (B22)	07:03	06:41			05:26	04:33
	15:52	29	14:32 (B22)	16:52	43	14:49 (B22)	17:54	19:59	21:02	21:57
5	08:49	14:04 (B22)	08:07	14:07 (B22)	07:00	06:38			05:23	04:32
	15:53	29	14:33 (B22)	16:54	42	14:49 (B22)	17:56	20:01	21:04	21:58
6	08:49	14:04 (B22)	08:05	14:07 (B22)	06:58	06:35			05:21	04:31
	15:55	30	14:34 (B22)	16:56	40	14:47 (B22)	17:58	20:03	21:06	21:59
7	08:48	14:03 (B22)	08:03	14:09 (B22)	06:55	06:33			05:19	04:30
	15:56	32	14:35 (B22)	16:59	38	14:47 (B22)	18:00	20:05	21:08	22:00
8	08:47	14:03 (B22)	08:00	14:10 (B22)	06:53	06:30			05:17	04:29
	15:58	33	14:36 (B22)	17:01	36	14:46 (B22)	18:03	20:07	21:10	22:01
9	08:47	14:03 (B22)	07:58	14:11 (B22)	06:50	06:27			05:15	04:28
	15:59	34	14:37 (B22)	17:03	34	14:45 (B22)	18:05	20:10	21:12	22:02
10	08:46	14:03 (B22)	07:56	14:13 (B22)	06:47	06:25			05:13	04:28
	16:01	35	14:38 (B22)	17:05	31	14:44 (B22)	18:07	20:12	21:14	22:03
11	08:45	14:03 (B22)	07:54	14:15 (B22)	06:45	06:22			05:10	04:27
	16:03	36	14:39 (B22)	17:08	27	14:42 (B22)	18:09	20:14	21:16	22:04
12	08:44	14:02 (B22)	07:52	14:17 (B22)	06:42	06:20			05:08	04:27
	16:04	37	14:39 (B22)	17:10	23	14:40 (B22)	18:11	20:16	21:18	22:05
13	08:43	14:02 (B22)	07:49	14:20 (B22)	06:39	06:17		06:43 (B4)	05:06	04:26
	16:06	38	14:40 (B22)	17:12	17	14:37 (B22)	18:13	20:18	7 06:50 (B4)	21:20 22:06
14	08:42	14:02 (B22)	07:47	14:26 (B22)	06:37	06:14		06:40 (B4)	05:04	04:26
	16:08	40	14:42 (B22)	17:14	5 14:31 (B22)	18:15	20:20	12 06:52 (B4)	21:22	22:07
15	08:41	14:02 (B22)	07:45		06:34	06:12		06:38 (B4)	05:02	04:26
	16:10	40	14:42 (B22)	17:17		18:17	20:22	16 06:54 (B4)	21:24	22:07
16	08:40	14:02 (B22)	07:43		06:31	06:09		06:36 (B4)	05:01	04:25
	16:12	41	14:43 (B22)	17:19		18:20	20:24	19 06:55 (B4)	21:25	22:08
17	08:39	14:01 (B22)	07:40		06:29	06:07		06:35 (B4)	04:59	04:25
	16:14	42	14:43 (B22)	17:21		18:22	20:26	21 06:56 (B4)	21:27	22:08
18	08:37	14:02 (B22)	07:38		06:26	06:04		06:34 (B4)	04:57	04:25
	16:16	43	14:45 (B22)	17:23		18:24	20:28	22 06:56 (B4)	21:29	22:09
19	08:36	14:01 (B22)	07:35		06:23	06:02		06:33 (B4)	04:55	04:25
	16:18	44	14:45 (B22)	17:25		18:26	20:30	24 06:57 (B4)	21:31	22:09
20	08:35	14:02 (B22)	07:33		06:21	05:59		06:32 (B4)	04:53	04:25
	16:20	44	14:46 (B22)	17:28		18:28	20:32	24 06:56 (B4)	21:33	22:10
21	08:33	14:02 (B22)	07:31		06:18	05:57		06:32 (B4)	04:52	04:25
	16:22	45	14:47 (B22)	17:30		18:30	20:35	24 06:56 (B4)	21:35	22:10
22	08:32	14:02 (B22)	07:28		06:15	05:54		06:33 (B4)	04:50	04:25
	16:24	45	14:47 (B22)	17:32		18:32	20:37	23 06:56 (B4)	21:36	22:10
23	08:30	14:02 (B22)	07:26		06:13	05:52		06:32 (B4)	04:48	04:26
	16:26	45	14:47 (B22)	17:34		18:34	20:39	23 06:55 (B4)	21:38	22:10
24	08:29	14:02 (B22)	07:23		06:10	05:49		06:32 (B4)	04:47	04:26
	16:28	46	14:48 (B22)	17:37		18:36	20:41	23 06:55 (B4)	21:40	22:10
25	08:27	14:03 (B22)	07:21		06:07	05:47		06:33 (B4)	04:45	04:26
	16:30	46	14:49 (B22)	17:39		18:38	20:43	21 06:54 (B4)	21:42	22:10
26	08:25	14:03 (B22)	07:18		06:05	05:44		06:33 (B4)	04:44	04:27
	16:32	46	14:49 (B22)	17:41		18:40	20:45	20 06:53 (B4)	21:43	22:10
27	08:24	14:03 (B22)	07:16		06:02	05:42		06:34 (B4)	04:42	04:27
	16:34	46	14:49 (B22)	17:43		18:43	20:47	18 06:52 (B4)	21:45	22:10
28	08:22	14:03 (B22)	07:13		05:59	05:40		06:36 (B4)	04:41	04:28
	16:36	47	14:50 (B22)	17:45		18:45	20:49	14 06:50 (B4)	21:47	22:10
29	08:20	14:03 (B22)			06:57	05:37		06:38 (B4)	04:39	04:28
	16:39	47	14:50 (B22)			19:47	20:51	10 06:48 (B4)	21:48	22:10
30	08:18	14:04 (B22)			06:54	05:35			04:38	04:29
	16:41	46	14:50 (B22)			19:49	20:53		21:50	22:09
31	08:17	14:03 (B22)			06:51				04:37	
	16:43	46	14:49 (B22)			19:51			21:51	
Potential sun hours	235		266		366	426		508	529	
Total, worst case	1210		469			321				
Sun reduction	0.13		0.20			0.50				
Oper. time red.	0.94		0.94			0.94				
Wind dir. red.	0.66		0.66			0.65				
Total reduction	0.08		0.13			0.31				
Total, real	101		59			99				

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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Calculated:

10/04/2024 05:50/4.0.531

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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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	13:42 (B22) 14:13 (B22)
2	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	14:13 (B22) 14:14 (B22)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	14:14 (B22) 14:16 (B22)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	14:16 (B22) 14:17 (B22)
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	14:17 (B22) 14:17 (B22)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	14:18 (B22) 14:18 (B22)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	14:19 (B22) 14:19 (B22)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	14:20 (B22) 14:20 (B22)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	14:21 (B22) 14:20 (B22)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	14:22 (B22) 14:20 (B22)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	14:22 (B22) 14:21 (B22)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	14:22 (B22) 14:21 (B22)
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	14:22 (B22) 14:22 (B22)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	14:22 (B22) 14:21 (B22)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	14:22 (B22) 14:21 (B22)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	14:22 (B22) 14:22 (B22)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	14:22 (B22) 14:22 (B22)
18	04:51 21:52	05:49 20:49	06:51 19:29	07:52 18:09	07:59 16:02	14:22 (B22) 14:21 (B22)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	14:22 (B22) 14:22 (B22)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	14:22 (B22) 14:22 (B22)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	14:22 (B22) 14:22 (B22)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	14:22 (B22) 14:22 (B22)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	14:22 (B22) 14:22 (B22)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	14:22 (B22) 14:22 (B22)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	14:22 (B22) 14:21 (B22)
26	05:04 21:39	06:05 20:29	07:07 19:07	08:09 16:50	08:15 15:51	14:22 (B22) 14:21 (B22)
27	05:06 21:37	06:07 20:27	07:09 19:04	08:12 16:47	08:17 15:49	14:22 (B22) 14:22 (B22)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	14:22 (B22) 14:22 (B22)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	14:22 (B22) 14:22 (B22)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	08:22 15:46	14:22 (B22) 14:21 (B22)
31	05:14 21:30	06:15 20:17		08:20 16:38	08:24 15:47	14:22 (B22) 14:28 (B22)
Potential sun hours	529	469	385	324	247	216
Total, worst case		328		79	1272	728
Sun reduction		0.50		0.26	0.08	0.07
Oper. time red.		0.94		0.94	0.94	0.94
Wind dir. red.		0.65		0.66	0.66	0.66
Total reduction		0.31		0.16	0.05	0.04
Total, real		101		13	66	32

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

January		February		March		April		May		June	
1	08:51	09:30 (B12)	08:15	09:00 (B11)	07:11	06:49	07:37 (B18)	05:32		04:36	05:23 (B15)
	15:48	13	09:43 (B12)	16:45	28	09:28 (B11)	17:47	19:53	38	08:15 (B18)	20:55
2	08:50	09:29 (B12)	08:13	09:00 (B11)	07:08	06:46	07:11 (B23)	05:30		04:35	05:22 (B15)
	15:49	14	09:43 (B12)	16:47	29	09:29 (B11)	17:50	19:55	48	08:15 (B18)	20:57
3	08:50	09:29 (B12)	08:11	09:00 (B11)	07:05	06:43	07:08 (B23)	05:28		04:34	05:21 (B15)
	15:51	16	09:45 (B12)	16:50	30	09:30 (B11)	17:52	19:57	54	08:15 (B18)	20:59
4	08:50	09:28 (B12)	08:09	09:00 (B11)	07:03	06:41	07:06 (B23)	05:26		04:33	05:20 (B15)
	15:52	17	09:45 (B12)	16:52	31	09:31 (B11)	17:54	19:59	60	08:16 (B18)	21:01
5	08:49	09:28 (B12)	08:07	08:59 (B11)	07:00	06:38	07:04 (B23)	05:23		04:32	05:21 (B15)
	15:53	18	09:46 (B12)	16:54	31	09:30 (B11)	17:56	20:01	64	08:16 (B18)	21:03
6	08:49	09:29 (B12)	08:05	08:59 (B11)	06:58	06:35	07:03 (B23)	05:21		04:31	05:20 (B15)
	15:55	19	09:48 (B12)	16:56	32	09:31 (B11)	17:58	20:03	67	08:17 (B18)	21:05
7	08:48	09:29 (B12)	08:02	08:59 (B11)	06:55	06:33	07:02 (B23)	05:19		04:30	05:20 (B15)
	15:56	19	09:48 (B12)	16:58	33	09:32 (B11)	18:00	20:05	68	08:16 (B18)	21:08
8	08:47	09:29 (B12)	08:00	09:00 (B11)	06:53	06:30	07:01 (B23)	05:17		04:29	05:20 (B15)
	15:58	20	09:49 (B12)	17:01	32	09:32 (B11)	18:02	20:07	67	08:15 (B18)	21:10
9	08:47	09:29 (B12)	07:58	08:59 (B11)	06:50	06:27	07:01 (B23)	05:15		04:28	05:19 (B15)
	15:59	21	09:50 (B12)	17:03	32	09:31 (B11)	18:05	20:09	69	08:16 (B18)	21:12
10	08:46	09:29 (B12)	07:56	09:00 (B11)	06:47	06:25	07:00 (B23)	05:12		04:28	05:20 (B15)
	16:01	22	09:51 (B12)	17:05	31	09:31 (B11)	18:07	20:12	69	08:15 (B18)	21:14
11	08:45	09:29 (B12)	07:54	08:59 (B11)	06:45	06:22	07:01 (B23)	05:10		04:27	05:19 (B15)
	16:03	23	09:52 (B12)	17:07	31	09:30 (B11)	18:09	20:14	67	08:15 (B18)	21:16
12	08:44	09:29 (B12)	07:52	09:00 (B11)	06:42	06:20	07:00 (B23)	05:08		04:27	05:19 (B15)
	16:04	22	09:51 (B12)	17:10	30	09:30 (B11)	18:11	20:16	67	08:14 (B18)	21:18
13	08:43	09:29 (B12)	07:49	09:01 (B11)	06:39	06:17	07:01 (B23)	05:06		04:26	05:20 (B15)
	16:06	23	09:52 (B12)	17:12	29	09:30 (B11)	18:13	20:18	63	08:13 (B18)	21:19
14	08:42	09:30 (B12)	07:47	09:02 (B11)	06:37	06:14	07:02 (B23)	05:04		04:26	05:19 (B15)
	16:08	23	09:53 (B12)	17:14	27	09:29 (B11)	18:15	20:20	60	08:12 (B18)	21:21
15	08:41	09:29 (B12)	07:45	09:03 (B11)	06:34	06:12	07:03 (B23)	05:02		04:26	05:19 (B15)
	16:10	24	09:53 (B12)	17:16	25	09:28 (B11)	18:17	20:22	57	08:12 (B18)	21:23
16	08:40	09:30 (B12)	07:42	09:04 (B11)	06:31	06:09	07:04 (B23)	05:00		04:25	05:19 (B15)
	16:12	24	09:54 (B12)	17:19	22	09:26 (B11)	18:19	20:24	52	08:10 (B18)	21:25
17	08:39	09:30 (B12)	07:40	09:06 (B11)	06:29	06:07	07:08 (B23)	04:59		04:25	05:19 (B15)
	16:14	24	09:54 (B12)	17:21	19	09:25 (B11)	18:22	20:26	43	08:09 (B18)	21:27
18	08:37	09:31 (B12)	07:38	09:08 (B11)	06:26	06:04	07:33 (B18)	04:57		04:25	05:20 (B15)
	16:16	24	09:55 (B12)	17:23	13	09:21 (B11)	18:24	20:28	34	08:07 (B18)	21:29
19	08:36	09:31 (B12)	07:35		06:23	06:02	07:34 (B18)	04:55		04:25	05:20 (B15)
	16:18	24	09:55 (B12)	17:25		18:26	20:30	32	08:06 (B18)	21:31	22:09 33 05:53 (B15)
20	08:35	09:31 (B12)	07:33		06:21	05:59	07:35 (B18)	04:53		04:25	05:20 (B15)
	16:20	24	09:55 (B12)	17:28		18:28	20:32	29	08:04 (B18)	21:33	22:10 33 05:53 (B15)
21	08:33	09:32 (B12)	07:31		06:18	05:57	07:37 (B18)	04:52		04:25	05:20 (B15)
	16:22	23	09:55 (B12)	17:30		18:30	20:34	25	08:02 (B18)	21:35	22:10 33 05:53 (B15)
22	08:32	09:32 (B12)	07:28		06:15	05:54	07:39 (B18)	04:50		04:25	05:21 (B15)
	16:24	23	09:55 (B12)	17:32		18:32	20:37	21	08:00 (B18)	21:36	22:10 33 05:54 (B15)
23	08:30	09:33 (B12)	07:26		06:13	05:52	07:41 (B18)	04:48		04:26	05:21 (B15)
	16:26	22	09:55 (B12)	17:34		18:34	20:39	15	07:56 (B18)	21:38	22:10 33 05:54 (B15)
24	08:29	09:33 (B12)	07:23		06:10	05:49		04:47		04:26	05:21 (B15)
	16:28	21	09:54 (B12)	17:36		18:36	20:41			22:10 33 05:54 (B15)	
25	08:27	09:09 (B11)	07:21		06:07	05:47		04:45		04:26	05:22 (B15)
	16:30	27	09:54 (B12)	17:39		18:38	5 07:00 (B18)	20:43		22:10 32 05:54 (B15)	
26	08:25	09:07 (B11)	07:18		06:05	05:44	06:49 (B18)	05:44		04:27	05:21 (B15)
	16:32	31	09:54 (B12)	17:41		18:40	17 07:06 (B18)	20:45		22:10 33 05:54 (B15)	
27	08:24	09:05 (B11)	07:16		06:02	05:42	06:46 (B18)	05:42		04:27	05:22 (B15)
	16:34	33	09:53 (B12)	17:43		18:42	23 07:09 (B18)	20:47		22:10 33 05:55 (B15)	
28	08:22	09:04 (B11)	07:13		05:59	05:39	06:43 (B18)	05:39		04:41	05:22 (B15)
	16:36	32	09:52 (B12)	17:45		18:45	27 07:10 (B18)	20:49		21:46	7 05:36 (B15) 22:10 32 05:54 (B15)
29	08:20	09:03 (B11)			06:57	05:37	07:41 (B18)	05:37		04:39	05:26 (B15) 04:28 05:23 (B15)
	16:38	29	09:49 (B12)		19:47	05:11	08:13 (B18)	20:51		21:48	13 05:39 (B15) 22:10 32 05:55 (B15)
30	08:18	09:01 (B11)			06:54	05:35	07:39 (B18)	05:35		04:38	05:25 (B15) 04:29 05:23 (B15)
	16:41	25	09:26 (B11)		19:49	20:53	08:13 (B18)	20:53		21:49	16 05:41 (B15) 22:09 32 05:55 (B15)
31	08:16	09:00 (B11)			06:51		07:37 (B18)			04:37	05:24 (B15)
	16:43	27	09:27 (B11)		19:51	37	08:14 (B18)			21:51	18 05:42 (B15)
Potential sun hours	235		266		366		426		508		529
Total, worst case	707		505		175		1169		54		912
Sun reduction	0.13		0.20		0.41		0.50		0.57		0.56
Oper. time red.	0.94		0.94		0.94		0.94		0.94		0.94
Wind dir. red.	0.60		0.59		0.65		0.65		0.67		0.67
Total reduction	0.07		0.11		0.25		0.30		0.35		0.34
Total, real	52		55		43		350		19		314

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30 22:09 31	05:23 (B15) 05:54 (B15) 21:28	06:17 20:14 67	07:00 (B23) 08:14 (B18) 18:53	07:22 16:36 32	08:29 (B11) 09:01 (B11) 15:45
2	04:31 22:08 30	05:24 (B15) 05:54 (B15) 21:26	06:19 20:11 69	07:19 08:14 (B18) 18:51	07:25 16:34 32	08:26 09:01 (B11) 15:44
3	04:32 22:08 30	05:24 (B15) 05:54 (B15) 21:24	06:21 20:09 69	07:21 06:59 (B23) 18:48	07:27 08:28 (B11) 16:31	08:27 09:01 (B11) 15:43
4	04:32 22:07 29	05:25 (B15) 05:54 (B15) 21:21	06:23 20:06 67	07:23 06:58 (B23) 18:45	07:29 16:29 32	08:29 (B11) 09:01 (B11) 15:42
5	04:33 22:06 28	05:26 (B15) 05:54 (B15) 21:19	06:25 20:03 68	07:25 06:58 (B23) 18:43	07:31 16:27 33	08:31 (B11) 09:01 (B11) 15:41
6	04:35 22:06 28	05:26 (B15) 05:54 (B15) 21:17	06:27 20:01 67	07:27 06:58 (B23) 18:40	07:33 16:25 32	08:32 (B11) 09:01 (B11) 15:41
7	04:36 22:05 27	05:27 (B15) 05:54 (B15) 21:15	06:29 19:58 64	07:29 06:59 (B23) 18:38	07:35 16:23 31	08:34 (B11) 09:00 (B11) 15:40
8	04:37 22:04 25	05:28 (B15) 05:53 (B15) 21:13	06:31 19:55 59	07:31 07:00 (B23) 18:35	07:38 16:21 31	08:35 (B11) 09:00 (B11) 15:40
9	04:38 22:03 25	05:28 (B15) 05:53 (B15) 21:11	06:33 19:53 56	07:33 07:02 (B23) 18:32	07:40 16:19 29	08:36 (B11) 09:00 (B11) 15:39
10	04:39 22:02 23	05:29 (B15) 05:52 (B15) 21:08	06:35 19:50 50	07:36 07:04 (B23) 18:30	07:42 16:17 28	08:38 (B11) 08:59 (B11) 15:39
11	04:41 22:01 21	05:30 (B15) 05:51 (B15) 21:06	06:37 19:47 39	07:38 07:29 (B18) 18:27	07:44 16:15 27	08:39 (B11) 08:59 (B11) 15:38
12	04:42 22:00 19	05:31 (B15) 05:50 (B15) 21:04	06:39 19:45 37	07:40 07:29 (B18) 18:24	07:46 16:13 25	08:40 (B11) 08:58 (B11) 15:38
13	04:43 21:59 17	05:33 (B15) 05:50 (B15) 21:01	06:41 19:42 35	07:42 07:30 (B18) 18:22	07:48 16:11 30	08:41 (B11) 08:58 (B11) 15:38
14	04:45 21:58 14	05:34 (B15) 05:48 (B15) 20:59	06:43 19:39 32	07:44 07:31 (B18) 18:19	07:51 16:09 32	08:42 (B11) 09:23 (B12) 15:38
15	04:46 21:56 10	05:36 (B15) 05:46 (B15) 20:57	06:45 19:37 28	07:46 07:33 (B18) 18:17	07:53 16:07 32	08:43 (B11) 09:25 (B12) 15:38
16	04:48 21:55 1	05:41 (B15) 05:41 (B15) 20:54	06:47 19:34 24	07:48 07:59 (B18) 18:14	07:55 16:06 31	08:44 (B11) 09:27 (B12) 15:38
17	04:49 21:54 18	05:47 20:52 19	06:49 19:31 19	07:50 07:37 (B18) 18:12	07:57 16:04 27	08:45 (B11) 09:28 (B12) 15:38
18	04:51 21:52 19	05:49 20:49 18	06:51 19:28 9	07:52 07:40 (B18) 18:09	07:59 16:02 21	08:46 (B11) 09:28 (B12) 15:38
19	04:52 21:51 20	05:51 20:47 16	06:53 19:26 8	07:54 07:54 (B18) 18:07	08:01 16:01 22	08:47 (B11) 09:30 (B12) 15:38
20	04:54 21:49 21	05:53 20:44 16	06:55 19:23 7	07:56 18:04 15	08:03 15:59 23	08:48 (B11) 09:30 (B12) 15:38
21	04:56 21:48 22	05:55 20:42 22	06:57 19:20 18	07:59 18:02 17	08:05 15:57 23	08:48 (B11) 09:30 (B12) 15:39
22	04:57 21:46 23	05:57 20:39 26	06:59 19:18 17	08:01 17:59 16	08:07 15:56 24	08:49 (B11) 09:31 (B12) 15:39
23	04:59 21:44 24	05:59 20:37 30	07:01 19:15 16	08:03 17:57 7	08:09 15:55 24	08:49 (B11) 09:32 (B12) 15:40
24	05:01 21:43 25	06:01 20:34 32	07:03 19:12 15	08:05 17:54 15	08:11 15:53 24	08:50 (B11) 09:32 (B12) 15:40
25	05:03 21:41 26	06:03 20:32 35	07:05 19:10 14	08:07 17:52 20	08:13 15:52 24	08:50 (B11) 09:32 (B12) 15:41
26	05:04 21:39 27	06:05 20:29 44	07:07 19:07 13	08:09 17:50 23	08:15 15:51 24	08:50 (B11) 09:32 (B12) 15:42
27	05:06 21:37 28	06:07 20:27 52	07:09 19:04 12	08:11 17:47 26	08:17 15:49 24	08:51 (B11) 09:32 (B12) 15:43
28	05:08 21:35 29	06:09 20:24 56	07:11 19:01 11	08:13 17:44 27	08:19 15:48 23	08:51 (B11) 09:32 (B12) 15:44
29	05:10 21:34 30	06:11 20:22 61	07:13 18:59 10	08:15 17:43 29	08:20 15:47 23	08:51 (B11) 09:33 (B12) 15:44
30	05:12 21:32 31	06:13 20:19 63	07:15 18:56 9	08:17 17:41 30	08:22 15:46 23	08:51 (B11) 09:34 (B12) 15:45
Potential sun hours	529	469	385	324	247	216
Total, worst case	358	508	859	208	819	334
Sun reduction	0.49	0.50	0.43	0.26	0.08	0.07
Oper. time red.	0.94	0.94	0.94	0.94	0.94	0.94
Wind dir. red.	0.67	0.65	0.65	0.59	0.60	0.60
Total reduction	0.30	0.30	0.26	0.14	0.05	0.04
Total, real	109	152	220	29	37	13

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51		09:52 (B14)	08:15		08:56 (B24)	07:11		06:49				05:33		04:36			
	15:48	13	10:05 (B14)	16:45	65	10:29 (B14)	17:48		19:53				20:55		21:53			
2	08:50		09:52 (B14)	08:13		08:56 (B24)	07:08		06:46				05:30		04:35			
	15:49	15	10:07 (B14)	16:48	66	10:29 (B14)	17:50		19:55				20:57		21:54			
3	08:50		09:51 (B14)	08:11		08:57 (B24)	07:06		06:43				05:28		04:34			
	15:51	17	10:08 (B14)	16:50	64	10:29 (B14)	17:52		19:57				21:00		21:55			
4	08:50		09:50 (B14)	08:09		08:57 (B24)	07:03		06:41		07:14 (B22)		05:26		04:33			
	15:52	19	10:09 (B14)	16:52	63	10:29 (B14)	17:54		19:59	11	07:25 (B22)		21:02		21:57			
5	08:49		09:50 (B14)	08:07		08:58 (B24)	07:01		06:38		07:10 (B22)		05:23		04:32			
	15:53	21	10:11 (B14)	16:54	60	10:28 (B14)	17:56		20:01	17	07:27 (B22)		21:04		21:58			
6	08:49		09:50 (B14)	08:05		08:58 (B24)	06:58		06:35		07:08 (B22)		05:21		04:31			
	15:55	22	10:12 (B14)	16:56	58	10:27 (B14)	17:58		20:03	22	07:30 (B22)		21:06		21:59			
7	08:48		09:49 (B14)	08:03		08:59 (B24)	06:55		06:33		07:06 (B22)		05:19		04:30			
	15:56	24	10:13 (B14)	16:59	54	10:26 (B14)	18:01		20:05	25	07:31 (B22)		21:08		22:00			
8	08:48		09:49 (B14)	08:01		09:00 (B24)	06:53		06:30		07:05 (B22)		05:17		04:29			
	15:58	26	10:15 (B14)	17:01	51	10:26 (B14)	18:03		20:08	28	07:33 (B22)		21:10		22:01			
9	08:47		09:48 (B14)	07:58		09:01 (B24)	06:50		06:28		07:03 (B22)		05:15		04:29			
	16:00	28	10:16 (B14)	17:03	46	10:24 (B14)	18:05		20:10	30	07:33 (B22)		21:12		22:02			
10	08:46		09:48 (B14)	07:56		09:03 (B24)	06:47		06:25		07:02 (B22)		05:13		04:28			
	16:01	29	10:17 (B14)	17:05	39	10:23 (B14)	18:07		20:12	31	07:33 (B22)		21:14		22:03			
11	08:45		09:48 (B14)	07:54		09:07 (B24)	06:45		06:22		07:01 (B22)		05:11		04:27			
	16:03	30	10:18 (B14)	17:08	27	10:21 (B14)	18:09		20:14	33	07:34 (B22)		21:16		22:04			
12	08:44		09:47 (B14)	07:52		10:01 (B14)	06:42		06:20		07:00 (B22)		05:09		04:27			
	16:05	31	10:18 (B14)	17:10	17	10:18 (B14)	18:11		20:16	34	07:34 (B22)		21:18		22:05			
13	08:43		09:47 (B14)	07:50		10:06 (B14)	06:40		06:17		07:00 (B22)		05:07		04:26			
	16:06	33	10:20 (B14)	17:12	7	10:13 (B14)	18:13		20:18	34	07:34 (B22)		21:20		22:06			
14	08:42		09:47 (B14)	07:47			06:37		06:15		06:59 (B22)		05:05		04:26			
	16:08	34	10:21 (B14)	17:14			18:15		20:20	35	07:34 (B22)		21:22		22:07			
15	08:41		09:46 (B14)	07:45			06:34		06:12		06:59 (B22)		05:03		04:26			
	16:10	35	10:21 (B14)	17:17			18:18		20:22	35	07:34 (B22)		21:24		22:07			
16	08:40		09:47 (B14)	07:43			06:32		06:09		06:58 (B22)		05:01		04:26			
	16:12	36	10:23 (B14)	17:19			18:20		20:24	35	07:33 (B22)		21:25		22:08			
17	08:39		09:46 (B14)	07:40			06:29		06:07		06:59 (B22)		04:59		04:25			
	16:14	37	10:23 (B14)	17:21			18:22		20:26	34	07:33 (B22)		21:27		22:08			
18	08:37		09:46 (B14)	07:38			06:26		06:04		06:58 (B22)		04:57		04:25			
	16:16	38	10:24 (B14)	17:23			18:24		20:28	34	07:32 (B22)		21:29		22:09			
19	08:36		09:46 (B14)	07:36			06:24		06:02		06:59 (B22)		04:55		04:25			
	16:18	39	10:25 (B14)	17:26			18:26		20:30	33	07:32 (B22)		21:31		22:09			
20	08:35		09:47 (B14)	07:33			06:21		05:59		06:58 (B22)		04:53		04:25			
	16:20	39	10:26 (B14)	17:28			18:28		20:33	32	07:30 (B22)		21:33		22:10			
21	08:33		09:46 (B14)	07:31			06:18		05:57		06:59 (B22)		04:52		04:25			
	16:22	40	10:26 (B14)	17:30			18:30		20:35	31	07:30 (B22)		21:35		22:10			
22	08:32		09:05 (B24)	07:28			06:16		05:54		07:00 (B22)		04:50		04:26			
	16:24	45	10:27 (B14)	17:32			18:32		20:37	29	07:29 (B22)		21:37		22:10			
23	08:30		09:03 (B24)	07:26			06:13		05:52		07:00 (B22)		04:48		04:26			
	16:26	50	10:27 (B14)	17:34			18:34		20:39	27	07:27 (B22)		21:38		22:10			
24	08:29		09:02 (B24)	07:23			06:10		05:49		07:02 (B22)		04:47		04:26			
	16:28	54	10:29 (B14)	17:37			18:36		20:41	24	07:26 (B22)		21:40		22:10			
25	08:27		09:00 (B24)	07:21			06:08		05:47		07:03 (B22)		04:45		04:26			
	16:30	58	10:29 (B14)	17:39			18:38		20:43	21	07:24 (B22)		21:42		22:10			
26	08:26		08:58 (B24)	07:18			06:05		05:44		07:05 (B22)		04:44		04:27			
	16:32	61	10:29 (B14)	17:41			18:41		20:45	16	07:21 (B22)		21:43		22:10			
27	08:24		08:57 (B24)	07:16			06:02		05:42		07:08 (B22)		04:42		04:27			
	16:34	63	10:29 (B14)	17:43			18:43		20:47	10	07:18 (B22)		21:45		22:10			
28	08:22		08:57 (B24)	07:13			05:59		05:40				04:41		04:28			
	16:37	65	10:30 (B14)	17:45			18:45		20:49				21:47		22:10			
29	08:20		08:57 (B24)				06:57		05:37				04:40		04:29			
	16:39	66	10:30 (B14)				19:47		20:51				21:48		22:10			
30	08:18		08:57 (B24)				06:54		05:35				04:38		04:29			
	16:41	65	10:30 (B14)				19:49		20:53				21:50		22:09			
31	08:17		08:57 (B24)				06:51						04:37					
	16:43	66	10:30 (B14)				19:51						21:51					
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1199			617					661									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.94			0.94					0.94									
Wind dir. red.	0.61			0.60					0.66									
Total reduction	0.07			0.11					0.30									
Total, real	89			69					199									

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	07:00 (B22) 18:54	07:17 16:36	08:32 (B24) 15:45	09:30 (B14) 10:00 (B14)
2	04:31 22:08	05:18 21:26	06:19 20:11	07:01 (B22) 18:51	07:19 16:34	08:30 (B24) 15:44	09:31 (B14) 10:00 (B14)
3	04:32 22:08	05:20 21:24	06:21 20:09	07:01 (B22) 18:48	07:21 16:32	08:30 (B24) 15:43	09:31 (B14) 09:59 (B14)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:02 (B22) 18:46	07:23 16:29	08:28 (B24) 15:42	09:33 (B14) 09:59 (B14)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:03 (B22) 18:43	07:25 16:27	08:27 (B24) 15:42	09:34 (B14) 09:59 (B14)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:03 (B22) 18:40	07:27 16:25	08:28 (B24) 15:41	09:36 (B14) 09:59 (B14)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:05 (B22) 18:38	07:30 16:23	08:27 (B24) 15:40	09:36 (B14) 09:57 (B14)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:08 (B22) 18:35	07:32 16:21	08:27 (B24) 15:40	09:38 (B14) 09:57 (B14)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:19 (B22) 18:32	07:34 16:19	08:27 (B24) 15:39	09:39 (B14) 09:56 (B14)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:27 (B24) 15:39	09:41 (B14) 09:56 (B14)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:28 (B24) 15:39	09:42 (B14) 09:56 (B14)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:28 (B24) 15:38	09:44 (B14) 09:56 (B14)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:29 (B24) 15:38	09:46 (B14) 09:55 (B14)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:29 (B24) 15:38	09:47 (B14) 09:53 (B14)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:29 (B24) 15:38	09:48 (B14) 15:38
16	04:48 21:55	05:45 20:54	07:14 (B22) 19:34	06:47 18:14	07:55 16:06	08:31 (B24) 15:38	08:45 15:38
17	04:49 21:54	05:47 20:52	07:12 (B22) 19:31	06:49 18:12	07:57 16:04	08:33 (B24) 15:38	08:46 15:38
18	04:51 21:52	05:49 20:50	07:09 (B22) 19:29	06:51 18:09	07:59 16:02	08:36 (B24) 15:38	08:46 15:38
19	04:53 21:51	05:51 20:47	07:07 (B22) 19:26	06:53 18:07	08:01 16:01	08:38 (B24) 15:38	08:47 15:38
20	04:54 21:49	05:53 20:45	07:06 (B22) 19:23	06:55 18:04	08:03 15:59	08:40 (B24) 15:39	08:48 15:39
21	04:56 21:48	05:55 20:42	07:05 (B22) 19:21	06:57 18:02	08:05 15:58	09:21 (B14) 15:39	08:48 15:39
22	04:58 21:46	05:57 20:40	07:04 (B22) 19:18	06:59 18:00	08:07 15:56	09:23 (B14) 15:40	08:49 15:40
23	04:59 21:45	05:59 20:37	07:03 (B22) 19:15	07:01 17:57	08:09 15:55	09:23 (B14) 15:40	08:50 15:40
24	05:01 21:43	06:01 20:35	07:02 (B22) 19:12	07:03 17:55	08:11 15:53	09:23 (B14) 15:41	08:50 15:41
25	05:03 21:41	06:03 20:32	07:02 (B22) 19:10	07:05 17:52	08:13 15:52	09:24 (B14) 15:41	08:50 15:41
26	05:05 21:39	06:05 20:30	07:01 (B22) 19:07	07:07 17:50	08:15 15:51	09:25 (B14) 15:42	08:51 15:42
27	05:06 21:38	06:07 20:27	07:00 (B22) 19:04	07:09 17:48	08:17 15:49	09:26 (B14) 15:43	08:51 15:43
28	05:08 21:36	06:09 20:24	07:00 (B22) 19:02	07:11 17:46	08:19 15:48	09:27 (B14) 15:44	08:51 15:44
29	05:10 21:34	06:11 20:22	07:00 (B22) 18:59	07:13 17:43	08:21 15:47	09:28 (B14) 15:45	08:51 15:45
30	05:12 21:32	06:13 20:19	07:00 (B22) 18:56	07:18 17:41	08:22 15:46	09:29 (B14) 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17	07:00 (B22) 18:53	07:20 17:38	08:35 (B24) 15:45	10:01 (B14) 15:47	08:51 15:47
Potential sun hours	529	469	385	324	247	216	11
Total, worst case		467	198	58	1523	297	
Sun reduction		0.50	0.43	0.26	0.08	0.07	
Oper. time red.		0.94	0.94	0.94	0.94	0.94	
Wind dir. red.		0.66	0.66	0.61	0.61	0.61	
Total reduction		0.30	0.26	0.14	0.05	0.04	
Total, real		140	51	8	70	12	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March		April		May		June		
1	08:51	08:15	07:11		07:40 (B14)	06:49		05:33	06:17 (B22)	04:36	
	15:48	16:45	17:48	8	07:48 (B14)	19:53		20:55	16	06:33 (B22)	21:53
2	08:50	08:13	07:08		07:36 (B14)	06:46		05:30		06:18 (B22)	04:35
	15:50	16:48	17:50	15	07:51 (B14)	19:55		20:58	14	06:32 (B22)	21:54
3	08:50	08:11	07:06		07:34 (B14)	06:43		05:28		06:20 (B22)	04:34
	15:51	16:50	17:52	20	07:54 (B14)	19:57		21:00	10	06:30 (B22)	21:55
4	08:50	08:09	07:03		07:31 (B14)	06:41		05:26		06:23 (B22)	04:33
	15:52	16:52	17:54	24	07:55 (B14)	19:59		21:02	4	06:27 (B22)	21:57
5	08:49	08:07	07:01		07:30 (B14)	06:38		05:24			04:32
	15:54	16:54	17:56	26	07:56 (B14)	20:01		21:04			21:58
6	08:49	08:05	06:58		07:29 (B14)	06:36		05:21			04:31
	15:55	16:56	17:58	28	07:57 (B14)	20:03		21:06			21:59
7	08:48	08:03	06:55		07:28 (B14)	06:33		05:19			04:30
	15:56	16:59	18:01	29	07:57 (B14)	20:06		21:08			22:00
8	08:48	08:01	06:53		07:26 (B14)	06:30		05:17			04:29
	15:58	17:01	18:03	31	07:57 (B14)	20:08		21:10			22:01
9	08:47	07:58	06:50		07:26 (B14)	06:28		05:15			04:29
	16:00	17:03	18:05	32	07:58 (B14)	20:10		21:12			22:02
10	08:46	07:56	06:48		07:26 (B14)	06:25		05:13			04:28
	16:01	17:05	18:07	32	07:58 (B14)	20:12		21:14			22:03
11	08:45	07:54	06:45		07:25 (B14)	06:22		05:11			04:27
	16:03	17:08	18:09	33	07:58 (B14)	20:14		21:16			22:04
12	08:44	07:52	06:42		07:25 (B14)	06:20		05:09			04:27
	16:05	17:10	18:11	33	07:58 (B14)	20:16		21:18			22:05
13	08:43	07:50	06:40		07:25 (B14)	06:17		05:07			04:27
	16:06	17:12	18:13	32	07:57 (B14)	20:18		21:20			22:06
14	08:42	07:47	06:37		07:25 (B14)	06:15		05:05			04:26
	16:08	17:14	18:15	31	07:56 (B14)	20:20		21:22			22:07
15	08:41	07:45	06:34		07:26 (B14)	06:12		05:03			04:26
	16:10	17:17	18:18	30	07:56 (B14)	20:22		21:24			22:07
16	08:40	07:43	06:32		07:26 (B14)	06:09		05:01			04:26
	16:12	17:19	18:20	29	07:55 (B14)	20:24		21:25			22:08
17	08:39	07:40	06:29		07:26 (B14)	06:07		04:59			04:25
	16:14	17:21	18:22	27	07:53 (B14)	20:26		21:27			22:08
18	08:38	07:38	06:26		07:27 (B14)	06:04		04:57			04:25
	16:16	17:23	18:24	24	07:51 (B14)	20:28	1	06:31 (B22)	21:29		22:09
19	08:36	07:36	06:24		07:29 (B14)	06:02		06:28 (B22)	04:55		04:25
	16:18	17:26	18:26	21	07:50 (B14)	20:31	6	06:34 (B22)	21:31		22:09
20	08:35	07:33	06:21		07:31 (B14)	05:59		06:26 (B22)	04:53		04:25
	16:20	17:28	18:28	16	07:47 (B14)	20:33	10	06:36 (B22)	21:33		22:10
21	08:33	07:31	06:18		07:34 (B14)	05:57		06:23 (B22)	04:52		04:25
	16:22	17:30	18:30	8	07:42 (B14)	20:35	13	06:36 (B22)	21:35		22:10
22	08:32	07:28	06:16			05:54		06:21 (B22)	04:50		04:26
	16:24	17:32	18:32			20:37	16	06:37 (B22)	21:37		22:10
23	08:30	07:26	06:13			05:52		06:18 (B22)	04:48		04:26
	16:26	17:34	18:34			20:39	19	06:37 (B22)	21:38		22:10
24	08:29	07:23	06:10			05:49		06:16 (B22)	04:47		04:26
	16:28	17:37	18:36			20:41	21	06:37 (B22)	21:40		22:10
25	08:27	07:21	06:08			05:47		06:15 (B22)	04:45		04:27
	16:30	17:39	18:39			20:43	23	06:38 (B22)	21:42		22:10
26	08:26	07:18	06:05			05:44		06:15 (B22)	04:44		04:27
	16:32	17:41	18:41			20:45	22	06:37 (B22)	21:43		22:10
27	08:24	07:16	06:02			05:42		06:15 (B22)	04:42		04:27
	16:34	17:43	18:43			20:47	22	06:37 (B22)	21:45		22:10
28	08:22	07:13	06:00			05:40		06:15 (B22)	04:41		04:28
	16:37	17:45	18:45			20:49	21	06:36 (B22)	21:47		22:10
29	08:20		06:57			05:37		06:16 (B22)	04:40		04:29
	16:39		19:47			20:51	20	06:36 (B22)	21:48		22:10
30	08:19		06:54			05:35		06:17 (B22)	04:38		04:29
	16:41		19:49			20:53	18	06:35 (B22)	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				529		212			44		
Sun reduction				0.41		0.50			0.57		
Oper. time red.				0.94		0.94			0.94		
Wind dir. red.				0.62		0.65			0.65		
Total reduction				0.24		0.31			0.35		
Total, real				127		65			15		

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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SIA Estonian, Latvian & Lithuanian environment

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LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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

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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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 (B14)	07:23
	22:09	21:28	20:14	18:54	32 08:37 (B14)	16:36
2	04:31	05:18	06:19	07:19	08:04 (B14)	07:25
	22:09	21:26	20:11	18:51	33 08:37 (B14)	16:34
3	04:32	05:20	06:21	07:21	08:04 (B14)	07:27
	22:08	21:24	20:09	18:48	32 08:36 (B14)	16:32
4	04:33	05:22	06:23	07:23	08:03 (B14)	07:29
	22:07	21:22	20:06	18:46	33 08:36 (B14)	16:30
5	04:34	05:23	06:25	07:25	08:03 (B14)	07:31
	22:07	21:20	20:03	18:43	32 08:35 (B14)	16:27
6	04:35	05:25	06:27	07:28	08:03 (B14)	07:33
	22:06	21:17	20:01	18:40	31 08:34 (B14)	16:25
7	04:36	05:27	06:29	07:30	08:04 (B14)	07:36
	22:05	21:15	19:58	18:38	29 08:33 (B14)	16:23
8	04:37	05:29	06:31	07:32	08:04 (B14)	07:38
	22:04	21:13	19:56	18:35	27 08:31 (B14)	16:21
9	04:38	05:31	06:33	07:34	08:06 (B14)	07:40
	22:03	21:11	19:53	18:33	25 08:31 (B14)	16:19
10	04:40	05:33	06:35	07:36	08:07 (B14)	07:42
	22:02	21:08	19:50	18:30	22 08:29 (B14)	16:17
11	04:41	05:35	06:37	07:38	08:08 (B14)	07:44
	22:01	21:06	19:47	18:27	19 08:27 (B14)	16:15
12	04:42	05:37	06:39	07:40	08:11 (B14)	07:46
	22:00	21:04	19:45	18:25	13 08:24 (B14)	16:13
13	04:44	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	18:20		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	08:22 (B14)	08:07
	21:46	20:40	19:18	18:00	4 08:26 (B14)	15:56
23	04:59	05:59	07:01	08:03	08:16 (B14)	08:09
	21:45	20:37	19:15	17:57	15 08:31 (B14)	15:55
24	05:01	06:01	07:03	08:05	08:13 (B14)	08:11
	21:43	20:35	19:12	17:55	20 08:33 (B14)	15:53
25	05:03	06:03	07:05	08:11	07:07	08:13
	21:41	20:32	19:10	17:52	23 08:34 (B14)	15:52
26	05:05	06:05	07:07	08:10	07:10	08:15
	21:39	20:30	19:07	18:08	25 08:35 (B14)	15:51
27	05:06	06:07	07:09	08:08	07:12	08:17
	21:38	20:27	19:04	18:06	28 08:36 (B14)	15:50
28	05:08	06:09	07:11	08:07	07:14	08:19
	21:36	20:24	19:02	18:04	30 08:37 (B14)	15:48
29	05:10	06:11	07:13	08:06	07:16	08:21
	21:34	20:22	18:59	18:03	31 08:37 (B14)	15:47
30	05:12	06:13	07:15	08:05	07:18	08:22
	21:32	20:19	18:56	18:01	32 08:37 (B14)	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
Total, worst case		261	208		328	
Sun reduction		0.50	0.43		0.26	
Oper. time red.		0.94	0.94		0.94	
Wind dir. red.		0.65	0.62		0.62	
Total reduction		0.31	0.25		0.15	
Total, real		80	52		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:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	07:37 (B14) 18:00 (B14)	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	08:15 (B14) 16:36
2	08:50 15:50	08:13 16:48	07:08 17:50	07:35 (B14) 18:00 (B14)	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	08:13 (B14) 16:34
3	08:50 15:51	08:11 16:50	07:06 17:52	07:35 (B14) 18:01 (B14)	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	08:12 (B14) 16:32
4	08:50 15:52	08:09 16:52	07:03 17:54	07:34 (B14) 18:01 (B14)	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	08:11 (B14) 16:30
5	08:49 15:54	08:07 16:54	07:01 17:56	07:33 (B14) 18:01 (B14)	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	08:10 (B14) 16:27
6	08:49 15:55	08:05 16:57	06:58 17:58	07:33 (B14) 18:02 (B14)	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	08:09 (B14) 16:25
7	08:48 15:56	08:03 16:59	06:55 18:01	07:33 (B14) 18:01 (B14)	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 20:06	07:30 18:38	08:09 (B14) 16:23
8	08:48 15:58	08:01 17:01	06:53 18:03	07:33 (B14) 18:00 (B14)	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 20:04	07:32 18:35	08:08 (B14) 16:21
9	08:47 16:00	07:58 17:03	06:50 18:05	07:33 (B14) 18:00 (B14)	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 20:04	07:34 18:33	08:09 (B14) 16:19
10	08:46 16:01	07:56 17:05	06:48 18:07	07:33 (B14) 18:00 (B14)	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 20:04	07:36 18:30	08:09 (B14) 16:17
11	08:45 16:03	07:54 17:08	06:45 18:09	07:34 (B14) 18:01 (B14)	06:22 20:14	05:11 21:16	04:27 22:04	04:42 22:01	05:35 21:06	06:37 20:04	07:38 18:27	08:09 (B14) 16:15
12	08:44 16:05	07:52 17:10	06:42 18:11	07:35 (B14) 18:02 (B14)	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 20:04	07:40 18:25	08:10 (B14) 16:13
13	08:43 16:06	07:50 17:12	06:40 18:13	07:36 (B14) 18:03 (B14)	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 20:04	07:42 18:22	08:11 (B14) 16:11
14	08:42 16:08	07:47 17:14	06:37 18:15	07:38 (B14) 18:04 (B14)	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:13 (B14) 16:10
15	08:41 16:10	07:45 17:17	06:34 18:18	07:42 (B14) 18:06 (B14)	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:16 (B14) 16:08
16	08:40 16:12	07:43 17:19	06:32 18:20	07:48 (B14) 18:09	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	08:18 (B14) 16:06
17	08:39 16:14	07:40 17:21	06:29 18:22	07:49 (B14) 18:10	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	08:20 (B14) 16:04
18	08:38 16:16	07:38 17:23	06:26 18:24	07:50 (B14) 18:11	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	08:21 (B14) 16:03
19	08:36 16:18	07:36 17:26	06:24 18:26	07:51 (B14) 18:12	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	08:22 (B14) 16:01
20	08:35 16:20	07:33 17:28	06:21 18:28	07:52 (B14) 18:13	06:01 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	08:23 (B14) 15:59
21	08:33 16:22	07:31 17:30	06:18 18:30	07:53 (B14) 18:14	06:00 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	08:24 (B14) 15:58
22	08:32 16:24	07:28 17:32	06:16 18:32	07:54 (B14) 18:15	06:00 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	08:25 (B14) 15:56
23	08:30 16:26	07:26 17:34	06:13 18:34	07:55 (B14) 18:16	06:01 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	08:26 (B14) 15:55
24	08:29 16:28	07:23 17:37	06:10 18:36	07:56 (B14) 18:17	06:02 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	08:27 (B14) 15:53
25	08:27 16:30	07:21 17:39	06:08 18:39	07:57 (B14) 18:18	06:03 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	08:28 (B14) 15:52
26	08:26 16:32	07:18 17:41	06:05 18:41	07:58 (B14) 18:19	06:04 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:08 17:50	08:29 (B14) 15:51
27	08:24 16:34	07:16 17:43	06:02 18:43	07:59 (B14) 18:20	06:05 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:09 17:48	08:30 (B14) 15:50
28	08:22 16:37	07:13 17:45	06:00 18:45	08:00 (B14) 18:21	06:06 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:11 17:45	08:31 (B14) 15:48
29	08:20 16:39	07:11 17:46	05:57 18:47	08:01 (B14) 18:22	06:07 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 19:04	08:13 (B14) 17:43	08:32 (B14) 15:47
30	08:19 16:41	07:03 17:49	05:54 18:49	08:02 (B14) 18:23	06:08 20:52	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 19:04	08:15 (B14) 17:41	08:33 (B14) 15:46
31	08:17 16:43	07:01 17:51	05:52 18:51	08:03 (B14) 18:24	06:09 20:53	04:37 21:51	04:27 22:10	05:14 21:30	06:15 20:17	07:20 19:04	08:17 (B14) 17:38	08:34 (B14) 15:47
Potential sun hours	235	266	366		426	508	529	469	385	324	247	216
Total, worst case		44		351					29	369		
Sun reduction		0.20		0.41					0.43	0.26		
Oper. time red.		0.94		0.94					0.94	0.94		
Wind dir. red.		0.62		0.62					0.62	0.62		
Total reduction		0.12		0.24					0.25	0.15		
Total, real		5		85					7	56		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	07:57 (B14) 08:22 (B14)	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	07:57 (B14) 08:22 (B14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	4	07:32 (B14) 07:36 (B14)	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 (B14) 08:21 (B14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	10	07:29 (B14) 07:39 (B14)	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	25	07:56 (B14) 08:21 (B14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	14	07:26 (B14) 07:40 (B14)	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 (B14) 08:20 (B14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	18	07:24 (B14) 07:42 (B14)	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 (B14) 08:19 (B14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	22	07:21 (B14) 07:43 (B14)	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 (B14) 08:18 (B14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	24	07:19 (B14) 07:43 (B14)	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 (B14) 08:16 (B14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	25	07:19 (B14) 07:44 (B14)	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 (B14) 08:15 (B14)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	25	07:18 (B14) 07:43 (B14)	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 (B14) 08:13 (B14)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	26	07:17 (B14) 07:43 (B14)	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 16:04	07:52 17:10	06:42 18:11	25	07:18 (B14) 07:43 (B14)	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	24	07:18 (B14) 07:42 (B14)	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	23	07:18 (B14) 07:41 (B14)	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	22	07:19 (B14) 07:41 (B14)	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	19	07:20 (B14) 07:39 (B14)	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	16	07:21 (B14) 07:37 (B14)	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	10	07:24 (B14) 07:34 (B14)	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	08:46 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 21:49	05:53 20:45	06:55 19:23		07:57 18:04			08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30		05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21		07:59 18:02			08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32		05:54 20:37	04:50 21:37	04:26 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 19:12		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	8	08:08 (B14) 08:16 (B14)			07:07 16:52	08:13 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	15	08:04 (B14) 08:19 (B14)			07:10 16:50	08:15 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	18	08:02 (B14) 08:20 (B14)			07:12 16:48	08:17 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	21	08:00 (B14) 08:21 (B14)			07:14 16:45	08:19 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	23	07:59 (B14) 08:22 (B14)			07:16 16:43	08:21 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	24	07:58 (B14) 08:22 (B14)			07:18 16:41	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			07:20 16:38			07:20 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	529	529	469	385		324		247	216	
Total, worst case			307							109		203				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.94							0.94		0.94				
Wind dir. red.			0.62							0.62		0.62				
Total reduction			0.24							0.25		0.15				
Total, real			74							27		31				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	07:42 (B14) 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 15:50	08:13 16:48	07:08 17:50	07:42 (B14) 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	07:06 17:52	07:42 (B14) 19:57	06:44 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	08:26 (B14) 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	07:42 (B14) 19:59	06:41 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	08:23 (B14) 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	07:41 (B14) 19:59	06:38 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:25 18:43	08:21 (B14) 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	07:42 (B14) 19:59	06:36 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:19 (B14) 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	07:43 (B14) 19:59	06:33 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:18 (B14) 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	07:43 (B14) 19:59	06:30 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:17 (B14) 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	07:45 (B14) 19:59	06:28 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:17 (B14) 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	07:46 (B14) 19:59	06:25 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:16 (B14) 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	07:49 (B14) 19:59	06:22 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	08:16 (B14) 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	07:57 (B14) 19:59	06:20 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:16 (B14) 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	07:57 (B14) 19:59	06:17 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:16 (B14) 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	07:57 (B14) 19:59	06:15 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:16 (B14) 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	07:57 (B14) 19:59	06:12 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:17 (B14) 16:08	08:44 15:38
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17	08:39 16:14	07:40 17:21	06:29 18:22	07:57 (B14) 19:59	06:07 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:20 (B14) 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	07:57 (B14) 19:59	06:04 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:09	08:22 (B14) 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	07:57 (B14) 19:59	06:02 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:25 (B14) 16:01	08:47 15:38
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21	08:33 16:22	07:31 17:30	06:18 18:30	07:57 (B14) 19:59	05:57 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:27 (B14) 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	07:57 (B14) 19:59	05:54 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:28 (B14) 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	07:57 (B14) 19:59	05:52 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:29 (B14) 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	07:57 (B14) 19:59	05:49 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:30 (B14) 15:53	08:51 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	07:57 (B14) 19:59	05:47 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:31 (B14) 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	07:57 (B14) 19:59	05:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:32 (B14) 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	07:57 (B14) 19:59	05:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:33 (B14) 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		123	248							370		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.94	0.94							0.94		
Wind dir. red.		0.63	0.63							0.63		
Total reduction		0.12	0.24							0.15		
Total, real		15	60							56		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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) []

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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

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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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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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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
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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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

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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
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
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31	08:17 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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
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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 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
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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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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) []

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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:

10/04/2024 05:50/4.0.531

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) []

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51		09:34 (B12)	08:15		09:09 (B11)	07:11			06:49		07:14 (B23)	05:32			04:36		05:25 (B15)
	15:48	20	09:54 (B12)	16:45	32	09:41 (B11)	17:47			19:53	58	08:30 (B18)	20:55			21:52	23	05:48 (B15)
2	08:50		09:34 (B12)	08:13		09:09 (B11)	07:08			06:46		07:11 (B23)	05:30			04:35		05:24 (B15)
	15:49	20	09:54 (B12)	16:47	32	09:41 (B11)	17:50			19:55	64	08:30 (B18)	20:57			21:54	25	05:49 (B15)
3	08:50		09:34 (B12)	08:11		09:09 (B11)	07:05			06:43		07:09 (B23)	05:28			04:34		05:23 (B15)
	15:51	21	09:55 (B12)	16:50	33	09:42 (B11)	17:52			19:57	66	08:29 (B18)	20:59			21:55	27	05:50 (B15)
4	08:50		09:34 (B12)	08:09		09:10 (B11)	07:03			06:41		07:08 (B23)	05:26			04:33		05:22 (B15)
	15:52	22	09:56 (B12)	16:52	32	09:42 (B11)	17:54			19:59	69	08:30 (B18)	21:01			21:56	27	05:50 (B15)
5	08:49		09:34 (B12)	08:07		09:09 (B11)	07:00			06:38		07:07 (B23)	05:23			04:32		05:23 (B15)
	15:53	22	09:56 (B12)	16:54	32	09:41 (B11)	17:56			20:01	70	08:29 (B18)	21:03			21:58	29	05:52 (B15)
6	08:49		09:35 (B12)	08:05		09:10 (B11)	06:58			06:35		07:07 (B23)	05:21			04:31		05:23 (B15)
	15:55	23	09:58 (B12)	16:56	32	09:42 (B11)	17:58			20:03	70	08:29 (B18)	21:05			21:59	29	05:52 (B15)
7	08:48		09:35 (B12)	08:02		09:10 (B11)	06:55			06:33		07:06 (B23)	05:19			04:30		05:22 (B15)
	15:56	23	09:58 (B12)	16:58	32	09:42 (B11)	18:00			20:05	70	08:28 (B18)	21:08			22:00	30	05:52 (B15)
8	08:47		09:35 (B12)	08:00		09:11 (B11)	06:53			06:30		07:05 (B23)	05:17			04:29		05:22 (B15)
	15:58	24	09:59 (B12)	17:01	31	09:42 (B11)	18:02			20:07	70	08:27 (B18)	21:10			22:01	32	05:54 (B15)
9	08:47		09:36 (B12)	07:58		09:11 (B11)	06:50			06:27		07:06 (B23)	05:15			04:28		05:22 (B15)
	15:59	23	09:59 (B12)	17:03	30	09:41 (B11)	18:05			20:09	69	08:27 (B18)	21:12			22:02	32	05:54 (B15)
10	08:46		09:36 (B12)	07:56		09:12 (B11)	06:47			06:25		07:06 (B23)	05:12			04:28		05:22 (B15)
	16:01	24	10:00 (B12)	17:05	28	09:40 (B11)	18:07			20:12	67	08:26 (B18)	21:14			22:03	33	05:55 (B15)
11	08:45		09:36 (B12)	07:54		09:13 (B11)	06:45			06:22		07:06 (B23)	05:10			04:27		05:21 (B15)
	16:03	25	10:01 (B12)	17:07	26	09:39 (B11)	18:09			20:14	65	08:26 (B18)	21:16			22:04	33	05:54 (B15)
12	08:44		09:36 (B12)	07:52		09:14 (B11)	06:42			06:20		07:06 (B23)	05:08			04:27		05:22 (B15)
	16:04	24	10:00 (B12)	17:10	24	09:38 (B11)	18:11			20:16	62	08:24 (B18)	21:18			22:05	33	05:55 (B15)
13	08:43		09:37 (B12)	07:49		09:16 (B11)	06:39			06:17		07:08 (B23)	05:06			04:26		05:22 (B15)
	16:06	24	10:01 (B12)	17:12	21	09:37 (B11)	18:13			20:18	57	08:23 (B18)	21:19			22:06	34	05:56 (B15)
14	08:42		09:37 (B12)	07:47		09:17 (B11)	06:37			06:14		07:09 (B23)	05:04			04:26		05:21 (B15)
	16:08	25	10:02 (B12)	17:14	17	09:34 (B11)	18:15			20:20	52	08:22 (B18)	21:21			22:06	34	05:55 (B15)
15	08:41		09:37 (B12)	07:45		09:21 (B11)	06:34			06:12		07:11 (B23)	05:02			04:26		05:22 (B15)
	16:10	24	10:01 (B12)	17:16	11	09:32 (B11)	18:17			20:22	45	08:20 (B18)	21:23			22:07	34	05:56 (B15)
16	08:40		09:38 (B12)	07:42			06:31			06:09		07:46 (B18)	05:00			04:25		05:22 (B15)
	16:12	24	10:02 (B12)	17:19			18:19			20:24	32	08:18 (B18)	21:25			22:08	34	05:56 (B15)
17	08:39		09:38 (B12)	07:40			06:29			06:07		07:48 (B18)	04:59			04:25		05:22 (B15)
	16:14	24	10:02 (B12)	17:21			18:22			20:26	29	08:17 (B18)	21:27			22:08	35	05:57 (B15)
18	08:37		09:39 (B12)	07:38			06:26			06:04		07:49 (B18)	04:57			04:25		05:22 (B15)
	16:16	23	10:02 (B12)	17:23			18:24			20:28	25	08:14 (B18)	21:29			22:09	35	05:57 (B15)
19	08:36		09:40 (B12)	07:35			06:23			06:02		07:51 (B18)	04:55			04:25		05:22 (B15)
	16:18	22	10:02 (B12)	17:25			18:26			20:30	20	08:11 (B18)	21:31			22:09	35	05:57 (B15)
20	08:35		09:18 (B11)	07:33			06:21			05:59		07:54 (B18)	04:53			04:25		05:22 (B15)
	16:20	29	10:01 (B12)	17:28			18:28			20:32	13	08:07 (B18)	21:33			22:10	35	05:57 (B15)
21	08:33		09:16 (B11)	07:31			06:18		07:08 (B18)	05:57			04:51			04:25		05:22 (B15)
	16:22	34	10:02 (B12)	17:30			18:30	5	07:13 (B18)	20:34			21:35			22:10	35	05:57 (B15)
22	08:32		09:14 (B11)	07:28			06:15		07:01 (B18)	05:54			04:50			04:25		05:23 (B15)
	16:24	36	10:01 (B12)	17:32			18:32	18	07:19 (B18)	20:37			21:36			22:10	35	05:58 (B15)
23	08:30		09:13 (B11)	07:26			06:13		06:58 (B18)	05:52			04:48			04:26		05:23 (B15)
	16:26	37	10:00 (B12)	17:34			18:34	24	07:22 (B18)	20:39			21:38			22:10	35	05:58 (B15)
24	08:29		09:12 (B11)	07:23			06:10		06:55 (B18)	05:49			04:47			04:26		05:23 (B15)
	16:28	37	09:59 (B12)	17:36			18:36	29	07:24 (B18)	20:41			21:40			22:10	35	05:58 (B15)
25	08:27		09:11 (B11)	07:21			06:07		06:53 (B18)	05:47			04:45			04:26		05:24 (B15)
	16:30	36	09:58 (B12)	17:39			18:38	32	07:25 (B18)	20:43			21:41			22:10	35	05:59 (B15)
26	08:25		09:11 (B11)	07:18			06:05		06:52 (B18)	05:44			04:44			04:27		05:24 (B15)
	16:32	33	09:57 (B12)	17:41			18:40	35	07:27 (B18)	20:45			21:43			22:10	35	05:59 (B15)
27	08:24		09:11 (B11)	07:16			06:02		06:50 (B18)	05:42			04:42		05:32 (B15)	04:27		05:25 (B15)
	16:34	27	09:38 (B11)	17:43			18:42	38	07:28 (B18)	20:47			21:45	7	05:39 (B15)	22:10	34	05:59 (B15)
28	08:22		09:10 (B11)	07:13			05:59		06:48 (B18)	05:39			04:41		05:30 (B15)	04:28		05:24 (B15)
	16:36	29	09:39 (B11)	17:45			18:45	40	07:28 (B18)	20:49			21:46	12	05:42 (B15)	22:10	35	05:59 (B15)
29	08:20		09:10 (B11)				06:57		07:48 (B18)	05:37			04:39		05:28 (B15)	04:28		05:25 (B15)
	16:38	30	09:40 (B11)				19:47	41	08:29 (B18)	20:51			21:48	16	05:44 (B15)	22:10	34	05:59 (B15)
30	08:18		09:09 (B11)				06:54		07:46 (B18)	05:35			04:38		05:27 (B15)	04:29		05:26 (B15)
	16:41	31	09:40 (B11)				19:49	44	08:30 (B18)	20:53			21:49	19	05:46 (B15)	22:09	33	05:59 (B15)
31	08:16		09:09 (B11)				06:51		07:16 (B23)				04:37		05:26 (B15)			
	16:43	31	09:40 (B11)				19:51	52	08:29 (B18)				21:51	21	05:47 (B15)			
Potential sun hours		235		266			366			426			508			529		
Total, worst case		827		413			358			1073			75			975		
Sun reduction		0.13		0.20			0.41			0.50			0.57			0.56		
Oper. time red.		0.94		0.94			0.94			0.94			0.94			0.94		
Wind dir. red.		0.60		0.59			0.64			0.65			0.67			0.67		
Total reduction		0.07		0.11			0.24			0.30			0.35			0.35		
Total, real		61		45			87			319			26			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)	Minutes with flicker	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July			August			September			October			November			December		
1	04:30		05:26 (B15)	05:16		06:17	07:05 (B23)	07:17		07:22	08:42 (B11)	08:24		09:18 (B12)				
	22:09	33	05:59 (B15)	21:28		20:14	65	08:25 (B18)	18:53		16:36	28	09:10 (B11)	15:45	24	09:42 (B12)		
2	04:31		05:26 (B15)	05:17		06:19		07:04 (B23)	07:19		07:25		08:41 (B11)	08:26		09:18 (B12)		
	22:08	33	05:59 (B15)	21:26		20:11	68	08:25 (B18)	18:51		16:34	29	09:10 (B11)	15:44	24	09:42 (B12)		
3	04:32		05:27 (B15)	05:19		06:21		07:04 (B23)	07:21		07:27		08:40 (B11)	08:27		09:19 (B12)		
	22:08	32	05:59 (B15)	21:24		20:09	69	08:25 (B18)	18:48		16:31	30	09:10 (B11)	15:43	23	09:42 (B12)		
4	04:32		05:27 (B15)	05:21		06:23		07:02 (B23)	07:23		07:29		08:40 (B11)	08:29		09:19 (B12)		
	22:07	32	05:59 (B15)	21:21		20:06	70	08:24 (B18)	18:45		16:29	31	09:11 (B11)	15:42	24	09:43 (B12)		
5	04:33		05:28 (B15)	05:23		06:25		07:02 (B23)	07:25		07:31		08:39 (B11)	08:31		09:20 (B12)		
	22:06	31	05:59 (B15)	21:19		20:03	72	08:25 (B18)	18:43		16:27	32	09:11 (B11)	15:41	23	09:43 (B12)		
6	04:35		05:29 (B15)	05:25		06:27		07:02 (B23)	07:27		07:33		08:40 (B11)	08:32		09:21 (B12)		
	22:06	30	05:59 (B15)	21:17		20:01	70	08:24 (B18)	18:40		16:25	32	09:12 (B11)	15:41	23	09:44 (B12)		
7	04:36		05:29 (B15)	05:27		06:29		07:02 (B23)	07:29		07:35		08:39 (B11)	08:34		09:21 (B12)		
	22:05	29	05:58 (B15)	21:15		19:58	70	08:24 (B18)	18:38		16:23	33	09:12 (B11)	15:40	22	09:43 (B12)		
8	04:37		05:30 (B15)	05:29		06:31		07:03 (B23)	07:31		07:38		08:39 (B11)	08:35		09:22 (B12)		
	22:04	28	05:58 (B15)	21:13		19:55	69	08:24 (B18)	18:35		16:21	33	09:12 (B11)	15:40	22	09:44 (B12)		
9	04:38		05:31 (B15)	05:31		06:33		07:03 (B23)	07:33		07:40		08:40 (B11)	08:36		09:22 (B12)		
	22:03	27	05:58 (B15)	21:11		19:53	67	08:24 (B18)	18:32		16:19	32	09:12 (B11)	15:39	22	09:44 (B12)		
10	04:39		05:31 (B15)	05:33		06:35		07:04 (B23)	07:36		07:42		08:40 (B11)	08:38		09:24 (B12)		
	22:02	26	05:57 (B15)	21:08		19:50	64	08:23 (B18)	18:30		16:17	32	09:12 (B11)	15:39	20	09:44 (B12)		
11	04:41		05:32 (B15)	05:35		06:37		07:06 (B23)	07:38		07:44		08:41 (B11)	08:39		09:24 (B12)		
	22:01	24	05:56 (B15)	21:06		19:47	60	08:23 (B18)	18:27		16:15	31	09:12 (B11)	15:38	20	09:44 (B12)		
12	04:42		05:33 (B15)	05:37		06:39		07:08 (B23)	07:40		07:46		08:41 (B11)	08:40		09:24 (B12)		
	22:00	22	05:55 (B15)	21:04		19:45	54	08:22 (B18)	18:24		16:13	31	09:12 (B11)	15:38	20	09:44 (B12)		
13	04:43		05:35 (B15)	05:39		06:41		07:38 (B18)	07:42		07:48		08:42 (B11)	08:41		09:26 (B12)		
	21:59	20	05:55 (B15)	21:01		19:42	43	08:21 (B18)	18:22		16:11	30	09:12 (B11)	15:38	19	09:45 (B12)		
14	04:45		05:36 (B15)	05:41		06:43		07:38 (B18)	07:44		07:51		08:42 (B11)	08:42		09:26 (B12)		
	21:58	18	05:54 (B15)	20:59		19:39	42	08:20 (B18)	18:19		16:09	29	09:11 (B11)	15:38	19	09:45 (B12)		
15	04:46		05:37 (B15)	05:43		06:45		07:38 (B18)	07:46		07:53		08:43 (B11)	08:43		09:27 (B12)		
	21:56	15	05:52 (B15)	20:57		19:36	41	08:19 (B18)	18:17		16:07	27	09:10 (B11)	15:38	18	09:45 (B12)		
16	04:48		05:40 (B15)	05:45		06:47		07:39 (B18)	07:48		07:55		08:44 (B11)	08:44		09:27 (B12)		
	21:55	10	05:50 (B15)	20:54		19:34	39	08:18 (B18)	18:14		16:06	33	09:30 (B12)	15:38	19	09:46 (B12)		
17	04:49			05:47		06:49		07:40 (B18)	07:50		07:57		08:45 (B11)	08:45		09:28 (B12)		
	21:54			20:52		19:31	36	08:16 (B18)	18:12		16:04	36	09:32 (B12)	15:38	18	09:46 (B12)		
18	04:51			05:49		06:51		07:40 (B18)	07:52		07:59		08:46 (B11)	08:46		09:29 (B12)		
	21:52			20:49		19:28	33	08:13 (B18)	18:09		16:02	37	09:33 (B12)	15:38	17	09:46 (B12)		
19	04:52			05:51		06:53		07:42 (B18)	07:54		08:01		08:48 (B11)	08:47		09:29 (B12)		
	21:51			20:47		19:26	29	08:11 (B18)	18:07		16:01	37	09:35 (B12)	15:38	17	09:46 (B12)		
20	04:54			05:53		06:55		07:43 (B18)	07:56		08:03		08:49 (B11)	08:48		09:30 (B12)		
	21:49			20:44		19:23	26	08:09 (B18)	18:04		15:59	36	09:36 (B12)	15:38	17	09:47 (B12)		
21	04:56			05:55		06:57		07:46 (B18)	07:59		08:05		08:51 (B11)	08:48		09:30 (B12)		
	21:48			20:42		19:20	20	08:06 (B18)	18:02		15:57	33	09:37 (B12)	15:39	17	09:47 (B12)		
22	04:57			05:57		06:59		07:50 (B18)	08:01		08:07		08:54 (B11)	08:49		09:31 (B12)		
	21:46			20:39		19:18	11	08:01 (B18)	17:59		15:56	30	09:38 (B12)	15:39	17	09:48 (B12)		
23	04:59			05:59	07:58 (B18)	07:01			08:03		08:09		09:17 (B12)	08:49		09:31 (B12)		
	21:44			20:37	14	08:12 (B18)	19:15		17:57		15:55	22	09:39 (B12)	15:40	17	09:48 (B12)		
24	05:01			06:01	07:55 (B18)	07:03			08:05		08:11		09:16 (B12)	08:50		09:32 (B12)		
	21:43			20:34	21	08:16 (B18)	19:12		17:54		15:53	23	09:39 (B12)	15:40	17	09:49 (B12)		
25	05:03			06:03	07:51 (B18)	07:05			07:07		08:13		09:16 (B12)	08:50		09:32 (B12)		
	21:41			20:32	26	08:17 (B18)	19:10		16:52		15:52	24	09:40 (B12)	15:41	17	09:49 (B12)		
26	05:04			06:05	07:49 (B18)	07:07			07:09		08:15		09:16 (B12)	08:50		09:32 (B12)		
	21:39			20:29	30	08:19 (B18)	19:07		16:50		15:51	24	09:40 (B12)	15:42	18	09:50 (B12)		
27	05:06			06:07	07:48 (B18)	07:09			07:12	08:49 (B11)	08:17		09:16 (B12)	08:51		09:32 (B12)		
	21:37			20:27	32	08:20 (B18)	19:04		16:47	13	09:02 (B11)	15:49	24	09:40 (B12)	15:43	18	09:50 (B12)	
28	05:08			06:09	07:12 (B23)	07:11			07:14		08:46 (B11)	08:19		09:16 (B12)	08:51		09:33 (B12)	
	21:35			20:24	45	08:21 (B18)	19:01		16:45	18	09:04 (B11)	15:48	25	09:41 (B12)	15:44	18	09:51 (B12)	
29	05:10			06:11	07:09 (B23)	07:13			07:16		08:45 (B11)	08:20		09:18 (B12)	08:51		09:33 (B12)	
	21:34			20:22	52	08:22 (B18)	18:59		16:43	22	09:07 (B11)	15:47	24	09:42 (B12)	15:44	19	09:52 (B12)	
30	05:12			06:13	07:08 (B23)	07:15			07:18		08:43 (B11)	08:22		09:18 (B12)	08:51		09:34 (B12)	
	21:32			20:19	57	08:23 (B18)	18:56		16:40	25	09:08 (B11)	15:46	24	09:42 (B12)	15:45	19	09:53 (B12)	
31	05:14			06:15	07:06 (B23)				07:20		08:42 (B11)			08:51		09:33 (B12)		
	21:30			20:16	62	08:24 (B18)			16:38	26	09:08 (B11)			15:47	20	09:53 (B12)		
Potential sun hours	529			469		385			324		247			216				
Total, worst case	410			339		1118			104		892			608				
Sun reduction	0.49			0.50		0.43			0.26		0.08			0.07				
Oper. time red.	0.94			0.94		0.94			0.94		0.94			0.94				
Wind dir. red.	0.67			0.65		0.65			0.59		0.60			0.61				
Total reduction	0.30			0.30		0.25			0.14		0.05			0.04				
Total, real	125			100		284			15		40			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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	08:58 (B22) 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	08:30 (B22) 15:45
2	08:51 15:49	08:13 16:47	08:58 (B22) 17:50	07:08 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	07:25 16:34	08:29 (B22) 15:44
3	08:50 15:51	08:11 16:50	08:58 (B22) 17:52	07:06 19:57	06:43 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:20 20:09	06:21 18:48	07:27 16:32	08:29 (B22) 15:43
4	08:50 15:52	08:09 16:52	08:58 (B22) 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 (B22) 15:42
5	08:49 15:53	08:07 16:54	08:58 (B22) 17:56	07:01 19:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 18:43	07:25 16:27	08:29 (B22) 15:42
6	08:49 15:55	08:05 16:56	08:58 (B22) 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	08:28 (B22) 15:41
7	08:48 15:56	08:03 16:59	08:58 (B22) 18:01	06:55 20:06	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	08:28 (B22) 15:40
8	08:48 15:58	08:01 17:01	08:59 (B22) 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:29 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:28 (B22) 15:40
9	08:47 15:59	07:58 17:03	08:59 (B22) 18:05	06:50 20:10	06:28 21:12	05:15 22:02	04:29 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:28 (B22) 15:39
10	08:46 16:01	07:56 17:05	09:00 (B22) 18:07	06:47 20:12	06:25 21:14	05:13 22:03	04:28 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:29 (B22) 15:39
11	08:45 16:03	07:54 17:08	09:02 (B22) 18:09	06:45 20:14	06:22 21:16	05:11 22:04	04:27 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:30 (B22) 15:38
12	08:44 16:05	07:52 17:10	09:02 (B22) 18:11	06:42 20:16	06:20 21:18	05:08 22:05	04:27 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:30 (B22) 15:38
13	08:43 16:06	07:50 17:12	09:04 (B22) 18:13	06:40 20:18	06:17 21:20	05:06 22:06	04:26 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:31 (B22) 15:38
14	08:42 16:08	07:47 17:14	09:06 (B22) 18:15	06:37 20:20	06:15 21:22	05:04 22:07	04:26 21:58	05:45 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:32 (B22) 15:38
15	08:41 16:10	07:45 17:17	09:17 (B22) 18:16	06:34 20:22	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	08:34 (B22) 15:38
16	08:40 16:12	07:43 17:19	09:17 (B22) 18:18	06:32 20:24	06:09 21:26	05:01 22:08	04:25 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:35 (B22) 15:38
17	08:39 16:14	07:40 17:21	09:17 (B22) 18:19	06:29 20:26	06:07 21:27	04:59 22:09	04:25 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:36 (B22) 15:38
18	08:38 16:16	07:38 17:23	09:17 (B22) 18:20	06:26 20:28	06:04 21:29	04:57 22:09	04:25 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:37 (B22) 15:38
19	08:36 16:18	07:36 17:26	09:17 (B22) 18:21	06:24 20:31	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	08:39 (B22) 15:38
20	08:35 16:20	07:33 17:28	09:17 (B22) 18:22	06:21 20:33	05:59 21:33	04:53 22:10	04:25 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:40 15:39
21	08:33 16:22	07:31 17:30	09:17 (B22) 18:23	06:18 20:35	05:57 21:35	04:52 22:10	04:25 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:41 15:39
22	08:32 16:24	07:28 17:32	09:17 (B22) 18:24	06:16 20:37	05:54 21:37	04:50 22:10	04:25 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:42 15:39
23	08:30 16:26	07:26 17:34	09:17 (B22) 18:25	06:13 20:39	05:52 21:38	04:48 22:10	04:26 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:43 15:40
24	08:29 16:28	07:23 17:37	09:17 (B22) 18:26	06:10 20:41	05:49 21:40	04:47 22:10	04:26 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:44 15:41
25	08:27 16:30	07:21 17:39	09:17 (B22) 18:27	06:08 20:43	05:47 21:42	04:45 22:10	04:26 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:45 15:41
26	08:26 16:32	07:18 17:41	09:17 (B22) 18:28	06:05 20:45	05:44 21:43	04:44 22:10	04:27 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 15:51	08:46 15:42
27	08:24 16:34	07:16 17:43	09:17 (B22) 18:29	06:02 20:47	05:42 21:45	04:42 22:10	04:27 21:38	06:07 20:27	07:09 19:04	08:11 17:47	08:17 15:49	08:47 15:43
28	08:22 16:36	07:13 17:45	09:17 (B22) 18:30	05:59 20:49	05:40 21:47	04:41 22:10	04:28 21:36	06:09 20:24	07:11 19:02	08:13 17:45	08:19 15:48	08:48 15:44
29	08:20 16:39	07:09 17:48	09:17 (B22) 18:31	05:57 20:51	05:37 21:48	04:40 22:10	04:29 21:34	06:11 20:22	07:13 18:59	08:15 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:07 17:50	09:17 (B22) 18:32	05:54 20:53	05:35 21:50	04:38 22:09	04:29 21:32	06:13 20:19	07:15 18:56	08:17 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:05 17:52	09:17 (B22) 18:33	05:51 20:54	05:32 21:51	04:37 22:10	04:27 21:30	06:15 20:17	07:20 18:38	08:19 17:41	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	153	333								69	420	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.94	0.94								0.94	0.94	
Wind dir. red.	0.59	0.59								0.59	0.59	
Total reduction	0.07	0.11								0.14	0.05	
Total, real	11	37								10	19	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	08:07 17:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:11	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)	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Medni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (190)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14)	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28			08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	10 07:11 (B14)	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	17 20:14	07:19 (B14)	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	14 07:09 (B14)	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	19 20:11	07:20 (B14)	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	17 07:06 (B14)	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	20 20:09	07:20 (B14)	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	20 07:03 (B14)	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	21 20:04	07:20 (B14)	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	21 07:02 (B14)	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	21 20:01	07:20 (B14)	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	21 07:02 (B14)	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	21 20:01	07:20 (B14)	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	21 07:02 (B14)	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	20 19:58	07:19 (B14)	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	21 07:02 (B14)	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	17 19:56	07:17 (B14)	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	20 07:02 (B14)	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	14 19:53	07:16 (B14)	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	19 07:03 (B14)	05:11 21:16	04:28 22:03	04:41 22:01	05:35 21:06	11 19:50	07:15 (B14)	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	17 07:03 (B14)	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	7 19:48	07:13 (B14)	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	15 07:05 (B14)	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	1 19:45	07:09 (B14)	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	12 07:17 (B14)	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59		18:22	08:44 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	5 07:13 (B14)	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	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		18:22	08:51 15:46
31	08:17 16:43		06:52 19:51			04:37 21:51	04:29 22:09	05:14 20:17	06:15 20:17		18:22	08:51 15:47
Potential sun hours	235	266	366	426		508	528	529	469	385	324	216
Total, worst case				218					33	189		
Sun reduction				0.50					0.50	0.43		
Oper. time red.				0.94					0.94	0.94		
Wind dir. red.				0.66					0.66	0.66		
Total reduction				0.31					0.31	0.26		
Total, real				68					10	50		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51		13:26 (B22)	08:15		13:35 (B22)	07:11		06:49				05:32		04:36			
	15:48	40	14:06 (B22)	16:45	42	14:17 (B22)	17:47		19:53				20:55		21:53			
2	08:50		13:27 (B22)	08:13		13:36 (B22)	07:08		06:46				05:30		04:35			
	15:49	41	14:08 (B22)	16:47	41	14:17 (B22)	17:50		19:55				20:57		21:54			
3	08:50		13:26 (B22)	08:11		13:38 (B22)	07:06		06:43				05:28		04:34			
	15:51	42	14:08 (B22)	16:50	38	14:16 (B22)	17:52		19:57				20:59		21:55			
4	08:50		13:26 (B22)	08:09		13:39 (B22)	07:03		06:41				05:26		04:33			
	15:52	42	14:08 (B22)	16:52	37	14:16 (B22)	17:54		19:59				21:02		21:57			
5	08:49		13:27 (B22)	08:07		13:41 (B22)	07:00		06:38				05:23		04:32			
	15:53	43	14:10 (B22)	16:54	34	14:15 (B22)	17:56		20:01				21:04		21:58			
6	08:49		13:27 (B22)	08:05		13:42 (B22)	06:58		06:35				05:21		04:31			
	15:55	43	14:10 (B22)	16:56	31	14:13 (B22)	17:58		20:03				21:06		21:59			
7	08:48		13:27 (B22)	08:03		13:44 (B22)	06:55		06:33				05:19		04:30			
	15:56	44	14:11 (B22)	16:59	28	14:12 (B22)	18:00		20:05				21:08		22:00			
8	08:47		13:27 (B22)	08:00		13:47 (B22)	06:53		06:30				05:17		04:29			
	15:58	44	14:11 (B22)	17:01	23	14:10 (B22)	18:03		20:07				21:10		22:01			
9	08:47		13:27 (B22)	07:58		13:49 (B22)	06:50		06:27				05:15		04:28			
	15:59	45	14:12 (B22)	17:03	17	14:06 (B22)	18:05		20:10				21:12		22:02			
10	08:46		13:28 (B22)	07:56		13:56 (B22)	06:47		06:25				05:13		04:28			
	16:01	45	14:13 (B22)	17:05	4	14:00 (B22)	18:07		20:12				21:14		22:03			
11	08:45		13:28 (B22)	07:54			06:45		06:22			06:48 (B4)	05:10		04:27			
	16:03	46	14:14 (B22)	17:08			18:09		20:14	9	06:57 (B4)	21:16			22:04			
12	08:44		13:27 (B22)	07:52			06:42		06:20			06:45 (B4)	05:08		04:27			
	16:04	46	14:13 (B22)	17:10			18:11		20:16	13	06:58 (B4)	21:18			22:05			
13	08:43		13:28 (B22)	07:49			06:39		06:17			06:43 (B4)	05:06		04:26			
	16:06	46	14:14 (B22)	17:12			18:13		20:18	16	06:59 (B4)	21:20			22:06			
14	08:42		13:28 (B22)	07:47			06:37		06:14			06:40 (B4)	05:04		04:26			
	16:08	47	14:15 (B22)	17:14			18:15		20:20	20	07:00 (B4)	21:22			22:07			
15	08:41		13:28 (B22)	07:45			06:34		06:12			06:40 (B4)	05:02		04:26			
	16:10	47	14:15 (B22)	17:17			18:17		20:22	21	07:01 (B4)	21:24			22:07			
16	08:40		13:28 (B22)	07:43			06:31		06:09			06:38 (B4)	05:01		04:25			
	16:12	48	14:16 (B22)	17:19			18:20		20:24	22	07:00 (B4)	21:25			22:08			
17	08:39		13:28 (B22)	07:40			06:29		06:07			06:38 (B4)	04:59		04:25			
	16:14	48	14:16 (B22)	17:21			18:22		20:26	23	07:01 (B4)	21:27			22:08			
18	08:37		13:29 (B22)	07:38			06:26		06:04			06:38 (B4)	04:57		04:25			
	16:16	48	14:17 (B22)	17:23			18:24		20:28	22	07:00 (B4)	21:29			22:09			
19	08:36		13:29 (B22)	07:35			06:23		06:02			06:38 (B4)	04:55		04:25			
	16:18	48	14:17 (B22)	17:25			18:26		20:30	22	07:00 (B4)	21:31			22:09			
20	08:35		13:30 (B22)	07:33			06:21		05:59			06:37 (B4)	04:53		04:25			
	16:20	48	14:18 (B22)	17:28			18:28		20:32	22	06:59 (B4)	21:33			22:10			
21	08:33		13:30 (B22)	07:31			06:18		05:57			06:38 (B4)	04:52		04:25			
	16:22	48	14:18 (B22)	17:30			18:30		20:35	20	06:58 (B4)	21:35			22:10			
22	08:32		13:30 (B22)	07:28			06:15		05:54			06:39 (B4)	04:50		04:25			
	16:24	48	14:18 (B22)	17:32			18:32		20:37	19	06:58 (B4)	21:36			22:10			
23	08:30		13:30 (B22)	07:26			06:13		05:52			06:39 (B4)	04:48		04:26			
	16:26	48	14:18 (B22)	17:34			18:34		20:39	17	06:56 (B4)	21:38			22:10			
24	08:29		13:30 (B22)	07:23			06:10		05:49			06:41 (B4)	04:47		04:26			
	16:28	48	14:18 (B22)	17:37			18:36		20:41	14	06:55 (B4)	21:40			22:10			
25	08:27		13:32 (B22)	07:21			06:07		05:47			06:43 (B4)	04:45		04:26			
	16:30	47	14:19 (B22)	17:39			18:38		20:43	10	06:53 (B4)	21:42			22:10			
26	08:25		13:32 (B22)	07:18			06:05		05:44				04:44		04:27			
	16:32	47	14:19 (B22)	17:41			18:40		20:45				21:43		22:10			
27	08:24		13:32 (B22)	07:16			06:02		05:42				04:42		04:27			
	16:34	47	14:19 (B22)	17:43			18:43		20:47				21:45		22:10			
28	08:22		13:33 (B22)	07:13			05:59		05:40				04:41		04:28			
	16:36	46	14:19 (B22)	17:45			18:45		20:49				21:47		22:10			
29	08:20		13:34 (B22)				06:57		05:37				04:39		04:28			
	16:39	45	14:19 (B22)				19:47		20:51				21:48		22:10			
30	08:18		13:34 (B22)				06:54		05:35				04:38		04:29			
	16:41	45	14:19 (B22)				19:49		20:53				21:50		22:09			
31	08:17		13:34 (B22)				06:51						04:37					
	16:43	44	14:18 (B22)				19:51						21:51					
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1414			295					270									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.94			0.94					0.94									
Wind dir. red.	0.65			0.65					0.66									
Total reduction	0.08			0.12					0.31									
Total, real	115			36					83									

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 (B4)	07:17	07:23
	22:09	21:28	20:14	8	06:55 (B4)	18:54
2	04:31	05:17	06:19	07:19	07:25	8
	22:08	21:26	20:11	18:51	16:34	18
3	04:32	05:19	06:21	07:21	07:27	13:16 (B22)
	22:08	21:24	20:09	18:48	16:31	24
4	04:33	05:21	06:23	07:23	07:29	13:13 (B22)
	22:07	21:22	20:06	18:46	16:29	28
5	04:34	05:23	06:25	07:25	07:31	13:11 (B22)
	22:07	21:19	20:03	18:43	16:27	32
6	04:35	05:25	06:27	07:27	07:33	13:10 (B22)
	22:06	21:17	20:01	18:40	16:25	35
7	04:36	05:27	06:29	07:29	07:36	13:09 (B22)
	22:05	21:15	19:58	18:38	16:23	37
8	04:37	05:29	06:31	07:32	07:38	13:08 (B22)
	22:04	21:13	19:55	18:35	16:21	39
9	04:38	05:31	06:33	07:34	07:40	13:07 (B22)
	22:03	21:11	19:53	18:32	16:19	41
10	04:39	05:33	06:35	07:36	07:42	13:06 (B22)
	22:02	21:08	19:50	18:30	16:17	42
11	04:41	05:35	06:37	07:38	07:44	13:06 (B22)
	22:01	21:06	19:47	18:27	16:15	44
12	04:42	05:37	06:39	07:40	07:46	13:05 (B22)
	22:00	21:04	19:45	18:25	16:13	45
13	04:43	05:39	06:41	07:42	07:49	13:06 (B22)
	21:59	21:01	19:42	18:22	16:11	45
14	04:45	05:41	06:43	07:44	07:51	13:05 (B22)
	21:58	20:59	19:39	18:19	16:09	46
15	04:46	05:43	06:45	07:46	07:53	13:04 (B22)
	21:57	20:57	19:37	18:17	16:08	47
16	04:48	05:45	06:47	07:48	07:55	13:05 (B22)
	21:55	20:54	19:34	18:14	16:06	47
17	04:49	05:47	06:49	07:50	07:57	13:05 (B22)
	21:54	20:52	3	06:55 (B4)	19:31	18:12
18	04:51	05:49	06:51	07:52	07:59	13:04 (B22)
	21:52	20:49	11	06:59 (B4)	19:29	18:09
19	04:52	05:51	06:53	07:54	08:01	13:05 (B22)
	21:51	20:47	15	07:01 (B4)	19:26	18:07
20	04:54	05:53	06:55	07:57	08:03	13:05 (B22)
	21:49	20:45	17	07:02 (B4)	19:23	18:04
21	04:56	05:55	06:57	07:59	08:05	13:05 (B22)
	21:48	20:42	20	07:03 (B4)	19:20	18:02
22	04:57	05:57	06:59	08:01	08:07	13:06 (B22)
	21:46	20:40	20	07:03 (B4)	19:18	17:59
23	04:59	05:59	07:01	08:03	08:09	13:06 (B22)
	21:45	20:37	22	07:04 (B4)	19:15	17:57
24	05:01	06:01	07:03	08:05	08:11	13:06 (B22)
	21:43	20:35	22	07:04 (B4)	19:12	17:55
25	05:03	06:03	07:05	08:07	08:13	13:06 (B22)
	21:41	20:32	23	07:04 (B4)	19:10	16:52
26	05:04	06:05	07:07	08:09	08:15	13:07 (B22)
	21:39	20:29	22	07:02 (B4)	19:07	16:50
27	05:06	06:07	07:09	08:12	08:17	13:08 (B22)
	21:37	20:27	22	07:02 (B4)	19:04	16:47
28	05:08	06:09	07:11	08:14	08:19	13:08 (B22)
	21:36	20:24	20	07:01 (B4)	19:02	16:45
29	05:10	06:11	07:13	08:16	08:21	13:09 (B22)
	21:34	20:22	19	07:00 (B4)	18:59	16:43
30	05:12	06:13	07:15	08:18	08:22	13:09 (B22)
	21:32	20:19	16	06:59 (B4)	18:56	16:40
31	05:14	06:15	07:17	08:20	08:24	13:10 (B22)
	21:30	20:17	13	06:58 (B4)	18:53	16:38
Potential sun hours	529	469	385	324	247	216
Total, worst case		265	8		1243	1251
Sun reduction		0.50	0.43		0.08	0.07
Oper. time red.		0.94	0.94		0.94	0.94
Wind dir. red.		0.66	0.66		0.65	0.65
Total reduction		0.31	0.26		0.05	0.04
Total, real		81	2		63	54

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51		13:52 (B22)	08:15		13:52 (B22)	07:11		06:49				05:32		04:36			
	15:48	29	14:21 (B22)	16:45	48	14:40 (B22)	17:47		19:53				20:55		21:52			
2	08:50		13:52 (B22)	08:13		13:53 (B22)	07:08		06:46				05:30		04:35			
	15:49	30	14:22 (B22)	16:47	47	14:40 (B22)	17:50		19:55				20:57		21:54			
3	08:50		13:52 (B22)	08:11		13:54 (B22)	07:06		06:43				05:28		04:34			
	15:51	31	14:23 (B22)	16:50	46	14:40 (B22)	17:52		19:57				20:59		21:55			
4	08:50		13:51 (B22)	08:09		13:55 (B22)	07:03		06:41				05:26		04:33			
	15:52	33	14:24 (B22)	16:52	45	14:40 (B22)	17:54		19:59				21:02		21:57			
5	08:49		13:52 (B22)	08:07		13:56 (B22)	07:00		06:38				05:23		04:32			
	15:53	33	14:25 (B22)	16:54	44	14:40 (B22)	17:56		20:01				21:04		21:58			
6	08:49		13:52 (B22)	08:05		13:56 (B22)	06:58		06:35				05:21		04:31			
	15:55	34	14:26 (B22)	16:56	43	14:39 (B22)	17:58		20:03				21:06		21:59			
7	08:48		13:51 (B22)	08:03		13:57 (B22)	06:55		06:33				05:19		04:30			
	15:56	36	14:27 (B22)	16:59	41	14:38 (B22)	18:00		20:05				21:08		22:00			
8	08:47		13:51 (B22)	08:00		13:58 (B22)	06:53		06:30				05:17		04:29			
	15:58	37	14:28 (B22)	17:01	40	14:38 (B22)	18:03		20:07				21:10		22:01			
9	08:47		13:51 (B22)	07:58		13:59 (B22)	06:50		06:27				05:15		04:28			
	15:59	38	14:29 (B22)	17:03	37	14:36 (B22)	18:05		20:10				21:12		22:02			
10	08:46		13:51 (B22)	07:56		14:01 (B22)	06:47		06:25				05:13		04:28			
	16:01	39	14:30 (B22)	17:05	35	14:36 (B22)	18:07		20:12				21:14		22:03			
11	08:45		13:51 (B22)	07:54		14:03 (B22)	06:45		06:22				05:10		04:27			
	16:03	40	14:31 (B22)	17:08	32	14:35 (B22)	18:09		20:14				21:16		22:04			
12	08:44		13:50 (B22)	07:52		14:04 (B22)	06:42		06:20				05:08		04:27			
	16:04	41	14:31 (B22)	17:10	28	14:32 (B22)	18:11		20:16				21:18		22:05			
13	08:43		13:50 (B22)	07:49		14:07 (B22)	06:39		06:17				05:06		04:26			
	16:06	42	14:32 (B22)	17:12	23	14:30 (B22)	18:13		20:18				21:20		22:06			
14	08:42		13:51 (B22)	07:47		14:10 (B22)	06:37		06:14			06:40 (B4)	05:04		04:26			
	16:08	42	14:33 (B22)	17:14	17	14:27 (B22)	18:15		20:20		9	06:49 (B4)	21:22		22:07			
15	08:41		13:50 (B22)	07:45			06:34		06:12			06:38 (B4)	05:02		04:26			
	16:10	43	14:33 (B22)	17:17			18:17		20:22		13	06:51 (B4)	21:24		22:07			
16	08:40		13:50 (B22)	07:43			06:31		06:09			06:35 (B4)	05:01		04:25			
	16:12	45	14:35 (B22)	17:19			18:20		20:24		17	06:52 (B4)	21:25		22:08			
17	08:39		13:50 (B22)	07:40			06:29		06:07			06:33 (B4)	04:59		04:25			
	16:14	45	14:35 (B22)	17:21			18:22		20:26		20	06:53 (B4)	21:27		22:08			
18	08:37		13:50 (B22)	07:38			06:26		06:04			06:32 (B4)	04:57		04:25			
	16:16	46	14:36 (B22)	17:23			18:24		20:28		21	06:53 (B4)	21:29		22:09			
19	08:36		13:50 (B22)	07:35			06:23		06:02			06:32 (B4)	04:55		04:25			
	16:18	46	14:36 (B22)	17:25			18:26		20:30		22	06:54 (B4)	21:31		22:09			
20	08:35		13:51 (B22)	07:33			06:21		05:59			06:30 (B4)	04:53		04:25			
	16:20	47	14:38 (B22)	17:28			18:28		20:32		23	06:53 (B4)	21:33		22:10			
21	08:33		13:50 (B22)	07:31			06:18		05:57			06:30 (B4)	04:52		04:25			
	16:22	48	14:38 (B22)	17:30			18:30		20:35		24	06:54 (B4)	21:35		22:10			
22	08:32		13:50 (B22)	07:28			06:15		05:54			06:31 (B4)	04:50		04:25			
	16:24	48	14:38 (B22)	17:32			18:32		20:37		23	06:54 (B4)	21:36		22:10			
23	08:30		13:50 (B22)	07:26			06:13		05:52			06:30 (B4)	04:48		04:26			
	16:26	49	14:39 (B22)	17:34			18:34		20:39		23	06:53 (B4)	21:38		22:10			
24	08:29		13:50 (B22)	07:23			06:10		05:49			06:30 (B4)	04:47		04:26			
	16:28	49	14:39 (B22)	17:37			18:36		20:41		22	06:52 (B4)	21:40		22:10			
25	08:27		13:51 (B22)	07:21			06:07		05:47			06:31 (B4)	04:45		04:26			
	16:30	49	14:40 (B22)	17:39			18:38		20:43		21	06:52 (B4)	21:42		22:10			
26	08:25		13:51 (B22)	07:18			06:05		05:44			06:31 (B4)	04:44		04:27			
	16:32	49	14:40 (B22)	17:41			18:40		20:45		19	06:50 (B4)	21:43		22:10			
27	08:24		13:51 (B22)	07:16			06:02		05:42			06:32 (B4)	04:42		04:27			
	16:34	50	14:41 (B22)	17:43			18:43		20:47		17	06:49 (B4)	21:45		22:10			
28	08:22		13:52 (B22)	07:13			05:59		05:40			06:34 (B4)	04:41		04:28			
	16:36	49	14:41 (B22)	17:45			18:45		20:49		14	06:48 (B4)	21:47		22:10			
29	08:20		13:52 (B22)				06:57		05:37			06:36 (B4)	04:39		04:28			
	16:39	49	14:41 (B22)				19:47		20:51		10	06:46 (B4)	21:48		22:10			
30	08:18		13:52 (B22)				06:54		05:35				04:38		04:29			
	16:41	49	14:41 (B22)				19:49		20:53				21:50		22:09			
31	08:17		13:52 (B22)				06:51						04:37					
	16:43	48	14:40 (B22)				19:51						21:51					
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1314			526					298									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.94			0.94					0.94									
Wind dir. red.	0.66			0.66					0.65									
Total reduction	0.08			0.13					0.31									
Total, real	109			66					92									

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	13:30 (B22)	08:24 15:45	13:33 (B22)
2	04:31 22:08	05:17 21:26		06:19 20:11	07:19 18:51		07:25 16:34	13:28 (B22)	08:26 15:44	13:34 (B22)
3	04:32 22:08	05:19 21:24		06:21 20:09	07:21 18:48		07:27 16:31	13:28 (B22)	08:27 15:43	13:34 (B22)
4	04:33 22:07	05:21 21:22		06:23 20:06	07:23 18:46		07:29 16:29	13:27 (B22)	08:29 15:42	13:35 (B22)
5	04:34 22:07	05:23 21:19		06:25 20:03	07:25 18:43		07:31 16:27	13:25 (B22)	08:31 15:42	13:36 (B22)
6	04:35 22:06	05:25 21:17		06:27 20:01	07:27 18:40		07:33 16:25	13:25 (B22)	08:32 15:41	13:38 (B22)
7	04:36 22:05	05:27 21:15		06:29 19:58	07:29 18:38		07:36 16:23	13:24 (B22)	08:34 15:40	13:38 (B22)
8	04:37 22:04	05:29 21:13		06:31 19:55	07:32 18:35		07:38 16:21	13:25 (B22)	08:35 15:40	13:39 (B22)
9	04:38 22:03	05:31 21:11		06:33 19:53	07:34 18:32		07:40 16:19	13:24 (B22)	08:37 15:39	13:40 (B22)
10	04:39 22:02	05:33 21:08		06:35 19:50	07:36 18:30		07:42 16:17	13:23 (B22)	08:38 15:39	13:41 (B22)
11	04:41 22:01	05:35 21:06		06:37 19:47	07:38 18:27		07:44 16:15	13:24 (B22)	08:39 15:38	13:42 (B22)
12	04:42 22:00	05:37 21:04		06:39 19:45	07:40 18:25		07:46 16:13	13:23 (B22)	08:40 15:38	13:43 (B22)
13	04:43 21:59	05:39 21:01	5	06:46 (B4) 06:51 (B4)	07:42 18:22		07:49 16:11	13:24 (B22) 14:13 (B22)	08:41 15:38	13:44 (B22) 14:12 (B22)
14	04:45 21:58	05:41 20:59	12	06:42 (B4) 06:54 (B4)	07:44 18:19		07:51 16:09	13:24 (B22) 14:13 (B22)	08:43 15:38	13:45 (B22) 14:11 (B22)
15	04:46 21:57	05:43 20:57	15	06:41 (B4) 06:56 (B4)	07:46 18:17		07:53 16:08	13:23 (B22) 14:13 (B22)	08:44 15:38	13:45 (B22) 14:11 (B22)
16	04:48 21:55	05:45 20:54	18	06:39 (B4) 06:57 (B4)	07:48 18:14		07:55 16:06	13:24 (B22) 14:13 (B22)	08:45 15:38	13:46 (B22) 14:12 (B22)
17	04:49 21:54	05:47 20:52	20	06:37 (B4) 06:57 (B4)	07:50 18:12		07:57 16:04	13:24 (B22) 14:13 (B22)	08:45 15:38	13:47 (B22) 14:12 (B22)
18	04:51 21:52	05:49 20:49	21	06:37 (B4) 06:58 (B4)	07:52 18:09		07:59 16:02	13:24 (B22) 14:13 (B22)	08:46 15:38	13:48 (B22) 14:12 (B22)
19	04:52 21:51	05:51 20:47	22	06:36 (B4) 06:58 (B4)	07:54 18:07		08:01 16:01	13:25 (B22) 14:14 (B22)	08:47 15:38	13:48 (B22) 14:12 (B22)
20	04:54 21:49	05:53 20:45	22	06:36 (B4) 06:58 (B4)	07:55 18:04		08:03 15:59	13:25 (B22) 14:13 (B22)	08:48 15:39	13:49 (B22) 14:12 (B22)
21	04:56 21:48	05:55 20:42	23	06:35 (B4) 06:58 (B4)	07:59 18:02		08:05 15:58	13:25 (B22) 14:13 (B22)	08:48 15:39	13:50 (B22) 14:13 (B22)
22	04:57 21:46	05:57 20:40	23	06:35 (B4) 06:58 (B4)	08:01 17:59		08:07 15:56	13:27 (B22) 14:14 (B22)	08:49 15:39	13:50 (B22) 14:13 (B22)
23	04:59 21:45	05:59 20:37	23	06:35 (B4) 06:58 (B4)	08:03 17:57		08:09 15:55	13:27 (B22) 14:13 (B22)	08:49 15:40	13:51 (B22) 14:14 (B22)
24	05:01 21:43	06:01 20:35	22	06:35 (B4) 06:57 (B4)	08:05 17:55		08:11 15:53	13:27 (B22) 14:13 (B22)	08:50 15:40	13:51 (B22) 14:15 (B22)
25	05:03 21:41	06:03 20:32	21	06:36 (B4) 06:57 (B4)	07:07 16:52		08:13 15:52	13:28 (B22) 14:13 (B22)	08:50 15:41	13:51 (B22) 14:15 (B22)
26	05:04 21:39	06:05 20:29	20	06:35 (B4) 06:55 (B4)	07:09 16:50		08:15 15:51	13:28 (B22) 14:13 (B22)	08:51 15:42	13:51 (B22) 14:16 (B22)
27	05:06 21:37	06:07 20:27	16	06:37 (B4) 06:53 (B4)	07:12 16:47	13:44 (B22) 13:52 (B22)	08:17 15:49	13:30 (B22) 14:13 (B22)	08:51 15:43	13:51 (B22) 14:16 (B22)
28	05:08 21:36	06:09 20:24	13	06:39 (B4) 06:52 (B4)	07:14 16:45	13:39 (B22) 13:57 (B22)	08:19 15:48	13:31 (B22) 14:13 (B22)	08:51 15:44	13:51 (B22) 14:17 (B22)
29	05:10 21:34	06:11 20:22	8	06:41 (B4) 06:49 (B4)	07:16 16:43	13:36 (B22) 14:00 (B22)	08:21 15:47	13:31 (B22) 14:13 (B22)	08:51 15:45	13:52 (B22) 14:18 (B22)
30	05:12 21:32	06:13 20:19		07:15 18:56	07:18 16:40	13:33 (B22) 14:02 (B22)	08:22 15:46	13:32 (B22) 14:13 (B22)	08:51 15:46	13:52 (B22) 14:19 (B22)
31	05:14 21:30	06:15 20:17			07:20 16:38	13:31 (B22) 14:03 (B22)			08:51 15:47	13:52 (B22) 14:20 (B22)
Potential sun hours	529	469		385	324		247		216	
Total, worst case		304			111		1364		886	
Sun reduction		0.50			0.26		0.08		0.07	
Oper. time red.		0.94			0.94		0.94		0.94	
Wind dir. red.		0.65			0.66		0.66		0.66	
Total reduction		0.31			0.16		0.05		0.04	
Total, real		93			18		70		39	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April	May	June
1	08:51		12:19 (B25)	08:15		12:42 (B25)	07:11		15:36 (B24)	06:49	05:32	04:36
	15:48	49	13:08 (B25)	16:45	44	15:49 (B24)	17:47	8	15:44 (B24)	19:53	20:55	21:52
2	08:50		12:19 (B25)	08:13		12:45 (B25)	07:08			06:46	05:30	04:35
	15:49	49	13:08 (B25)	16:47	43	15:52 (B24)	17:50			19:55	20:57	21:54
3	08:50		12:20 (B25)	08:11		12:50 (B25)	07:06			06:43	05:28	04:34
	15:51	49	13:09 (B25)	16:50	36	15:53 (B24)	17:52			19:57	20:59	21:55
4	08:50		12:20 (B25)	08:09		15:25 (B24)	07:03			06:41	05:26	04:33
	15:52	49	13:09 (B25)	16:52	30	15:55 (B24)	17:54			19:59	21:01	21:56
5	08:49		12:20 (B25)	08:07		15:23 (B24)	07:00			06:38	05:23	04:32
	15:53	49	13:09 (B25)	16:54	33	15:56 (B24)	17:56			20:01	21:04	21:58
6	08:49		12:21 (B25)	08:05		15:22 (B24)	06:58			06:35	05:21	04:31
	15:55	50	13:11 (B25)	16:56	35	15:57 (B24)	17:58			20:03	21:06	21:59
7	08:48		12:22 (B25)	08:03		15:22 (B24)	06:55			06:33	05:19	04:30
	15:56	49	13:11 (B25)	16:59	36	15:58 (B24)	18:00			20:05	21:08	22:00
8	08:47		12:22 (B25)	08:00		15:22 (B24)	06:53			06:30	05:17	04:29
	15:58	49	13:11 (B25)	17:01	37	15:59 (B24)	18:03			20:07	21:10	22:01
9	08:47		12:22 (B25)	07:58		15:20 (B24)	06:50			06:27	05:15	04:29
	15:59	50	13:12 (B25)	17:03	39	15:59 (B24)	18:05			20:10	21:12	22:02
10	08:46		12:23 (B25)	07:56		15:20 (B24)	06:47		17:27 (B14)	06:25	05:13	04:28
	16:01	49	13:12 (B25)	17:05	40	16:00 (B24)	18:07	8	17:35 (B14)	20:12	21:14	22:03
11	08:45		12:24 (B25)	07:54		15:19 (B24)	06:45		17:23 (B14)	06:22	05:10	04:27
	16:03	49	13:13 (B25)	17:08	41	16:00 (B24)	18:09	15	17:38 (B14)	20:14	21:16	22:04
12	08:44		12:23 (B25)	07:52		15:19 (B24)	06:42		17:22 (B14)	06:20	05:08	04:27
	16:04	49	13:12 (B25)	17:10	42	16:01 (B24)	18:11	18	17:40 (B14)	20:16	21:18	22:05
13	08:43		12:24 (B25)	07:49		15:20 (B24)	06:39		17:20 (B14)	06:17	05:06	04:26
	16:06	49	13:13 (B25)	17:12	42	16:02 (B24)	18:13	21	17:41 (B14)	20:18	21:20	22:06
14	08:42		12:25 (B25)	07:47		15:19 (B24)	06:37		17:18 (B14)	06:14	05:04	04:26
	16:08	49	13:14 (B25)	17:14	42	16:01 (B24)	18:15	24	17:42 (B14)	20:20	21:21	22:06
15	08:41		12:25 (B25)	07:45		15:19 (B24)	06:34		17:17 (B14)	06:12	05:03	04:26
	16:10	48	13:13 (B25)	17:17	43	16:02 (B24)	18:17	25	17:42 (B14)	20:22	21:23	22:07
16	08:40		12:25 (B25)	07:42		15:19 (B24)	06:31		17:16 (B14)	06:09	05:01	04:25
	16:12	49	13:14 (B25)	17:19	42	16:01 (B24)	18:20	27	17:43 (B14)	20:24	21:25	22:08
17	08:39		12:26 (B25)	07:40		15:19 (B24)	06:29		17:15 (B14)	06:07	04:59	04:25
	16:14	48	13:14 (B25)	17:21	43	16:02 (B24)	18:22	28	17:43 (B14)	20:26	21:27	22:08
18	08:37		12:27 (B25)	07:38		15:19 (B24)	06:26		17:15 (B14)	06:04	04:57	04:25
	16:16	47	13:14 (B25)	17:23	42	16:01 (B24)	18:24	27	17:42 (B14)	20:28	21:29	22:09
19	08:36		12:27 (B25)	07:35		15:20 (B24)	06:23		17:15 (B14)	06:02	04:55	04:25
	16:18	47	13:14 (B25)	17:25	41	16:01 (B24)	18:26	28	17:43 (B14)	20:30	21:31	22:09
20	08:35		12:27 (B25)	07:33		15:20 (B24)	06:21		17:15 (B14)	05:59	04:53	04:25
	16:20	47	13:14 (B25)	17:28	40	16:00 (B24)	18:28	27	17:42 (B14)	20:32	21:33	22:10
21	08:33		12:29 (B25)	07:31		15:21 (B24)	06:18		17:15 (B14)	05:57	04:52	04:25
	16:22	45	13:14 (B25)	17:30	39	16:00 (B24)	18:30	26	17:41 (B14)	20:35	21:35	22:10
22	08:32		12:29 (B25)	07:28		15:21 (B24)	06:15		17:16 (B14)	05:54	04:50	04:25
	16:24	45	13:14 (B25)	17:32	38	15:59 (B24)	18:32	24	17:40 (B14)	20:37	21:36	22:10
23	08:30		12:30 (B25)	07:26		15:23 (B24)	06:13		17:16 (B14)	05:52	04:48	04:26
	16:26	44	13:14 (B25)	17:34	35	15:58 (B24)	18:34	23	17:39 (B14)	20:39	21:38	22:10
24	08:29		12:30 (B25)	07:23		15:23 (B24)	06:10		17:16 (B14)	05:49	04:47	04:26
	16:28	43	13:13 (B25)	17:37	34	15:57 (B24)	18:36	21	17:37 (B14)	20:41	21:40	22:10
25	08:27		12:31 (B25)	07:21		15:24 (B24)	06:07		17:18 (B14)	05:47	04:45	04:26
	16:30	42	13:13 (B25)	17:39	31	15:55 (B24)	18:38	17	17:35 (B14)	20:43	21:42	22:10
26	08:25		12:33 (B25)	07:18		15:26 (B24)	06:05		17:20 (B14)	05:44	04:44	04:27
	16:32	40	13:13 (B25)	17:41	28	15:54 (B24)	18:40	13	17:33 (B14)	20:45	21:43	22:10
27	08:24		12:34 (B25)	07:16		15:28 (B24)	06:02		17:25 (B14)	05:42	04:42	04:27
	16:34	38	13:12 (B25)	17:43	23	15:51 (B24)	18:43	2	17:27 (B14)	20:47	21:45	22:10
28	08:22		12:35 (B25)	07:13		15:31 (B24)	05:59			05:40	04:41	04:28
	16:36	37	13:12 (B25)	17:45	18	15:49 (B24)	18:45			20:49	21:46	22:10
29	08:20		12:37 (B25)				06:57			05:37	04:40	04:29
	16:39	34	13:11 (B25)				19:47			20:51	21:48	22:10
30	08:18		12:37 (B25)				06:54			05:35	04:38	04:29
	16:41	39	15:42 (B24)				19:49			20:53	21:49	22:09
31	08:16		12:39 (B25)				06:51				04:37	
	16:43	43	15:46 (B24)				19:51				21:51	
Potential sun hours	235			266			366		426		508	528
Total, worst case	1424			1037			382					58
Sun reduction	0.13			0.20			0.41					0.56
Oper. time red.	0.94			0.94			0.94					0.94
Wind dir. red.	0.64			0.66			0.66					0.61
Total reduction	0.08			0.12			0.25					0.32
Total, real	114			129			97					18

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	18:00 (B14) 20	07:22 16:36 14:50 (B24) 15:45 49	08:24 12:06 (B25) 12:55 (B25)
2	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	18:01 (B14) 17	07:25 16:34 14:50 (B24) 15:44 49	08:26 12:05 (B25) 12:54 (B25)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	18:03 (B14) 12	07:27 16:32 14:51 (B24) 15:43 49	08:27 12:06 (B25) 12:55 (B25)
4	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:46	18:15 (B14) 07:29	16:32 14:52 (B24) 15:42 49	08:29 12:06 (B25) 12:55 (B25)
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	14:52 (B24) 15:42 49	08:31 12:07 (B25) 12:56 (B25)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	14:54 (B24) 15:41 49	08:32 12:08 (B25) 12:57 (B25)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	14:55 (B24) 15:40 49	08:34 12:07 (B25) 12:56 (B25)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	12:20 (B25) 15:40 49	08:35 12:08 (B25) 12:57 (B25)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	12:15 (B25) 15:39 49	08:36 12:08 (B25) 12:57 (B25)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	12:12 (B25) 15:39 49	08:38 12:09 (B25) 12:58 (B25)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	12:11 (B25) 15:38 49	08:39 12:09 (B25) 12:58 (B25)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	12:09 (B25) 15:38 48	08:40 12:10 (B25) 12:58 (B25)
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	16:06 (B24) 13	07:48 16:11 12:43 (B25) 15:38 48	08:41 12:11 (B25) 12:59 (B25)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	16:02 (B24) 20	07:51 16:09 12:44 (B25) 15:38 48	08:42 12:11 (B25) 12:59 (B25)
15	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	16:00 (B24) 25	07:53 16:08 12:06 (B25) 15:38 48	08:44 12:12 (B25) 13:00 (B25)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	15:58 (B24) 29	07:55 16:06 12:06 (B25) 15:38 48	08:44 12:12 (B25) 13:00 (B25)
17	04:49 21:54	05:47 20:52	06:49 19:31	18:09 (B14) 07:50	15:56 (B24) 32	07:57 16:04 12:05 (B25) 15:38 48	08:45 12:13 (B25) 13:01 (B25)
18	04:51 21:52	05:49 20:49	06:51 19:28	18:12 (B14) 07:52	16:28 (B24) 34	16:04 07:59 12:04 (B25) 15:38 48	16:04 07:59 12:04 (B25) 15:38 48
19	04:52 21:51	05:51 20:47	06:53 19:26	18:23 (B14) 07:54	16:28 (B24) 36	16:02 08:01 12:05 (B25) 15:38 48	16:02 08:01 12:05 (B25) 15:38 48
20	04:54 21:49	05:53 20:44	06:55 19:23	18:04 (B14) 07:57	16:29 (B24) 38	16:01 08:03 12:04 (B25) 15:39 48	16:01 08:03 12:04 (B25) 15:39 48
21	04:56 21:48	05:55 20:42	06:57 19:20	18:24 (B14) 07:59	15:52 (B24) 39	15:59 08:05 12:49 (B25) 15:39 48	15:59 08:05 12:49 (B25) 15:39 48
22	04:57 21:46	05:57 20:40	06:59 19:18	18:00 (B14) 08:01	15:51 (B24) 41	15:58 08:07 12:04 (B25) 15:39 48	15:58 08:07 12:04 (B25) 15:39 48
23	04:59 21:44	05:59 20:37	07:01 19:15	17:59 (B14) 08:03	15:50 (B24) 41	08:09 15:55 12:51 (B25) 15:40 48	08:09 15:55 12:51 (B25) 15:40 48
24	05:01 21:43	06:01 20:34	07:03 19:12	18:25 (B14) 08:05	17:57 (B14) 42	15:54 15:53 12:51 (B25) 15:41 48	15:54 15:53 12:51 (B25) 15:41 48
25	05:03 21:41	06:03 20:32	07:05 19:10	17:58 (B14) 08:05	17:55 (B14) 42	15:53 15:52 12:52 (B25) 15:41 48	15:53 15:52 12:52 (B25) 15:41 48
26	05:04 21:39	06:05 20:29	07:07 19:07	18:25 (B14) 08:07	16:52 (B14) 43	15:51 15:51 12:52 (B25) 15:42 48	15:51 15:51 12:52 (B25) 15:42 48
27	05:06 21:37	06:07 20:27	07:09 19:04	17:57 (B14) 08:09	17:57 (B14) 42	15:50 15:49 12:52 (B25) 15:43 48	15:50 15:49 12:52 (B25) 15:43 48
28	05:08 21:36	06:09 20:24	07:11 19:02	18:24 (B14) 08:11	17:57 (B14) 43	15:49 15:48 12:52 (B25) 15:44 49	15:49 15:48 12:52 (B25) 15:44 49
29	05:10 21:34	06:11 20:22	07:13 18:59	17:58 (B14) 08:13	17:57 (B14) 42	15:49 15:47 12:05 (B25) 15:45 48	15:49 15:47 12:05 (B25) 15:45 48
30	05:12 21:32	06:13 20:19	07:15 18:56	18:23 (B14) 08:15	16:43 (B14) 42	15:47 15:46 12:54 (B25) 15:46 49	15:47 15:46 12:54 (B25) 15:46 49
31	05:14 21:30	06:15 20:16		17:59 (B14) 08:17	18:22 (B14) 41	15:49 (B24) 15:30 (B24)	08:51 15:47
Potential sun hours	529	469	385	324	247	216	
Total, worst case			330	734	1257	1501	
Sun reduction			0.43	0.26	0.08	0.07	
Oper. time red.			0.94	0.94	0.94	0.94	
Wind dir. red.			0.66	0.66	0.64	0.64	
Total reduction			0.26	0.16	0.05	0.04	
Total, real			87	117	63	63	

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

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

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Muižnieki (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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	08:40 (B22) 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	08:11 (B22) 15:45
2	08:50 15:49	08:13 16:47	07:08 17:50	08:41 (B22) 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	08:12 (B22) 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	08:44 (B22) 19:57	06:43 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:20 20:09	06:21 18:48	07:27 16:32	08:15 (B22) 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	08:47 (B22) 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	07:29 16:29	08:18 (B22) 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	08:58 (B22) 19:58	06:38 20:58	05:23 21:53	04:32 22:07	04:34 21:20	05:23 20:03	06:25 18:43	07:25 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	07:06 17:58	08:56 (B22) 19:58	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	07:03 18:01	08:47 (B22) 19:57	06:35 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 15:40
8	08:48 15:58	08:01 17:01	07:04 18:03	08:45 (B22) 19:57	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 15:40
9	08:47 15:59	07:58 17:03	07:05 18:05	08:43 (B22) 19:56	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	08:37 15:39
10	08:46 16:01	07:56 17:05	07:06 18:07	08:41 (B22) 19:57	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 16:15	08:38 15:39
11	08:45 16:03	07:54 17:08	07:07 18:09	08:41 (B22) 19:57	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	08:39 15:38
12	08:44 16:05	07:52 17:10	07:08 18:11	08:39 (B22) 19:56	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	08:40 15:38
13	08:43 16:06	07:50 17:12	07:09 18:13	08:38 (B22) 19:55	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	08:42 15:38
14	08:42 16:08	07:47 17:14	07:10 18:15	08:37 (B22) 19:54	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	08:43 15:38
15	08:41 16:10	07:45 17:17	07:11 18:18	08:37 (B22) 19:53	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	08:44 15:38
16	08:40 16:12	07:43 17:19	07:12 18:20	08:36 (B22) 19:52	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	08:45 15:38
17	08:39 16:14	07:40 17:21	07:13 18:22	08:36 (B22) 19:51	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	08:46 15:38
18	08:37 16:16	07:38 17:23	07:14 18:24	08:35 (B22) 19:50	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 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	07:15 18:26	08:36 (B22) 19:49	06:02 21:31	04:55 22:09	04:51 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	07:16 18:28	08:35 (B22) 19:48	06:00 21:33	04:53 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	07:18 18:30	08:35 (B22) 19:47	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 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	07:19 18:32	08:35 (B22) 19:46	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 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	07:20 18:34	08:36 (B22) 19:45	05:52 21:38	04:48 22:10	04:59 21:45	05:59 20:37	08:03 19:15	08:09 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	07:21 18:36	08:36 (B22) 19:44	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 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	07:22 18:38	08:37 (B22) 19:43	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 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	07:23 18:41	08:37 (B22) 19:42	05:44 21:43	04:44 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:06 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	07:24 18:43	08:37 (B22) 19:41	05:42 21:45	04:42 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:07 17:47	08:17 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	07:25 18:45	08:39 (B22) 19:40	05:40 21:47	04:41 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:09 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:47	07:26 18:47	08:40 (B22) 19:39	05:37 21:48	04:40 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:11 17:43	08:21 15:47	08:51 15:45
30	08:18 16:41	07:09 17:49	07:27 18:49	08:41 (B22) 19:38	05:35 21:50	04:38 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:12 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:07 17:49	07:28 18:51	08:42 (B22) 19:37	05:34 21:51	04:37 22:09	05:14 21:30	06:15 20:17	07:20 18:38	08:13 17:39	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	529	469	385	324	247	216
Total, worst case		726		79						726		83
Sun reduction		0.20		0.41						0.26		0.08
Oper. time red.		0.94		0.94						0.94		0.94
Wind dir. red.		0.61		0.61						0.61		0.61
Total reduction		0.12		0.24						0.15		0.05
Total, real		84		19						108		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:
10/04/2024 05:50/4.0.531

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
425 448 518 446 469 751 755 902 1,169 1,037 801 535 8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December				
1	08:50	08:14	15:34 (B3)	07:10	06:48	05:32	04:35	04:29	05:15	06:17	07:17	07:22	08:24			
	15:48	16:45	22	15:56 (B3)	17:47	19:53	20:55	21:52	22:09	21:28	20:14	18:53	16:35	15:44		
2	08:50	08:12	15:34 (B3)	07:08	06:46	05:30	04:34	04:30	05:17	06:19	07:19	07:24	08:26			
	15:49	16:47	22	15:56 (B3)	17:49	19:55	20:57	21:54	22:08	21:25	20:11	18:50	16:33	15:43		
3	08:50	08:10	15:35 (B3)	07:05	06:43	05:27	04:33	04:31	05:19	06:21	07:21	07:27	15:10 (B3)	08:27		
	15:50	16:49	21	15:56 (B3)	17:51	19:57	20:59	21:55	22:08	21:23	20:08	18:48	16:31	10	15:20 (B3)	15:43
4	08:49	08:08	15:36 (B3)	07:03	06:40	05:25	04:32	04:32	05:21	06:23	07:23	07:29	07:29	15:09 (B3)	08:29	
	15:51	16:51	20	15:56 (B3)	17:54	19:59	21:01	21:56	22:07	21:21	20:06	18:45	16:29	14	15:23 (B3)	15:42
5	08:49	08:06	15:36 (B3)	07:00	06:38	05:23	04:31	04:33	05:23	06:25	07:25	07:31	07:31	15:07 (B3)	08:30	
	15:53	16:54	18	15:54 (B3)	17:56	20:01	21:03	21:58	22:06	21:19	20:03	18:42	16:27	17	15:24 (B3)	15:41
6	08:49	08:04	15:37 (B3)	06:57	06:35	05:21	04:30	04:34	05:25	06:27	07:27	07:33	07:33	15:07 (B3)	08:32	
	15:54	16:56	17	15:54 (B3)	17:58	20:03	21:05	21:59	22:06	21:17	20:00	18:40	16:25	18	15:25 (B3)	15:40
7	08:48	08:02	15:39 (B3)	06:55	06:32	05:18	04:29	04:35	05:27	06:29	07:29	07:35	07:35	15:05 (B3)	08:33	
	15:56	16:58	14	15:53 (B3)	18:00	20:05	21:07	22:00	22:05	21:15	19:58	18:37	16:22	21	15:26 (B3)	15:40
8	08:47	08:00	15:41 (B3)	06:52	06:30	05:16	04:29	04:36	05:29	06:31	07:31	07:37	07:37	15:05 (B3)	08:35	
	15:57	17:00	9	15:50 (B3)	18:02	20:07	21:09	22:01	22:04	21:13	19:55	18:35	16:20	21	15:26 (B3)	15:39
9	08:47	07:58		06:50	06:27	05:14	04:28	04:37	05:31	06:33	07:33	07:40	15:05 (B3)	08:36		
	15:59	17:03		18:04	20:09	21:11	22:02	22:03	21:10	19:52	18:32	16:18	22	15:27 (B3)	15:39	
10	08:46	07:56		06:47	06:24	05:12	04:27	04:39	05:33	06:35	07:35	07:42	15:04 (B3)	08:38		
	16:00	17:05		18:06	20:11	21:13	22:03	22:02	21:08	19:50	18:29	16:16	23	15:27 (B3)	15:38	
11	08:45	07:54		06:44	06:22	05:10	04:27	04:40	05:35	06:37	07:37	07:44	15:05 (B3)	08:39		
	16:02	17:07		18:09	20:13	21:15	22:04	22:01	21:06	19:47	18:27	16:14	23	15:28 (B3)	15:38	
12	08:44	07:51		06:42	06:19	05:08	04:26	04:41	05:37	06:39	07:39	07:46	15:05 (B3)	08:40		
	16:04	17:09		18:11	20:15	21:17	22:05	22:00	21:03	19:44	18:24	16:13	22	15:27 (B3)	15:38	
13	08:43	07:49		06:39	06:17	05:06	04:26	04:43	05:39	06:41	07:42	07:48	15:05 (B3)	08:41		
	16:06	17:12		18:13	20:18	21:19	22:06	21:59	21:01	19:42	18:22	16:11	22	15:27 (B3)	15:37	
14	08:42	07:47		06:36	06:14	05:04	04:25	04:44	05:41	06:43	07:44	07:50	15:06 (B3)	08:42		
	16:07	17:14		18:15	20:20	21:21	22:06	21:58	20:59	19:39	18:19	16:09	21	15:27 (B3)	15:37	
15	08:41	07:45		06:34	06:11	05:02	04:25	04:46	05:43	06:45	07:46	07:52	15:06 (B3)	08:43		
	16:09	17:16		18:17	20:22	21:23	22:07	21:56	20:56	19:36	18:16	16:07	21	15:27 (B3)	15:37	
16	08:40	07:42		06:31	06:09	05:00	04:25	04:47	05:45	06:47	07:48	07:55	15:07 (B3)	08:44		
	16:11	17:18		18:19	20:24	21:25	22:08	21:55	20:54	19:34	18:14	16:05	20	15:27 (B3)	15:37	
17	08:38	07:40		06:28	06:06	04:58	04:25	04:49	05:47	06:49	07:50	07:57	15:08 (B3)	08:45		
	16:13	17:21		18:21	20:26	21:27	22:08	21:54	20:52	19:31	18:11	16:03	18	15:26 (B3)	15:37	
18	08:37	07:38		06:26	06:04	04:56	04:24	04:50	05:49	06:51	07:52	07:59	15:08 (B3)	08:46		
	16:15	17:23		18:23	20:28	21:29	22:09	21:52	20:49	19:28	18:09	16:02	16	15:24 (B3)	15:37	
19	08:36	07:35		06:23	06:01	04:54	04:24	04:52	05:51	06:53	07:54	08:01	15:10 (B3)	08:47		
	16:17	17:25		18:25	20:30	21:31	22:09	21:51	20:47	19:25	18:06	16:00	13	15:23 (B3)	15:38	
20	08:34	07:33		06:20	05:59	04:53	04:25	04:53	05:53	06:55	07:56	08:03	15:11 (B3)	08:48		
	16:19	17:27		18:28	20:32	21:33	22:09	21:49	20:44	19:23	18:04	15:59	10	15:21 (B3)	15:38	
21	08:33	15:38 (B3)	07:30	06:18	05:56	04:51	04:25	04:55	05:55	06:57	07:58	08:05	15:13 (B3)	08:48		
	16:21	5	15:43 (B3)	17:29	18:30	20:34	21:34	22:10	21:48	20:42	19:20	18:01	15:57	6	15:19 (B3)	15:38
22	08:32	15:36 (B3)	07:28	06:15	05:54	04:49	04:25	04:57	05:57	06:59	08:01	08:07			08:49	
	16:23	10	15:46 (B3)	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	15:35 (B3)	07:25	06:12	05:51	04:48	04:25	04:59	05:59	07:01	08:03	08:09			08:49	
	16:25	13	15:48 (B3)	17:34	18:34	20:38	21:38	22:10	21:44	20:37	19:15	17:56	15:54			15:39
24	08:28	15:34 (B3)	07:23	06:10	05:49	04:46	04:25	05:00	06:01	07:03	08:05	08:11			08:50	
	16:27	16	15:50 (B3)	17:36	18:36	20:41	21:40	22:10	21:43	20:34	19:12	17:54	15:53			15:40
25	08:27	15:34 (B3)	07:20	06:07	05:46	04:45	04:26	05:02	06:03	07:05	07:07	08:13			08:50	
	16:29	18	15:52 (B3)	17:38	18:38	20:43	21:41	22:10	21:41	20:32	19:09	16:52	15:51			15:41
26	08:25	15:33 (B3)	07:18	06:04	05:44	04:43	04:26	05:04	06:05	07:07	07:09	08:15			08:50	
	16:32	20	15:53 (B3)	17:40	18:40	20:45	21:43	22:10	21:39	20:29	19:07	16:49	15:50			15:41
27	08:24	15:33 (B3)	07:15	06:02	05:41	04:42	04:27	05:06	06:07	07:09	07:11	08:17			08:51	
	16:34	21	15:54 (B3)	17:43	18:42	20:47	21:45	22:10	21:37	20:27	19:04	16:47	15:49			15:42
28	08:22	15:33 (B3)	07:13	05:59	05:39	04:40	04:27	05:08	06:09	07:11	07:13	08:19			08:51	
	16:36	21	15:54 (B3)	17:45	18:44	20:49	21:46	22:10	21:35	20:24	19:01	16:45	15:48			15:43
29	08:20	15:33 (B3)		06:56	05:37	04:39	04:28	05:09	06:11	07:13	07:16	08:20			08:51	
	16:38	22	15:55 (B3)		19:46	20:51	21:48	22:09	21:33	20:21	18:58	16:42	15:46			15:44
30	08:18	15:33 (B3)		06:54	05:34	04:38	04:29	05:11	06:13	07:15	07:18	08:22			08:51	
	16:40	22	15:55 (B3)		19:48	20:53	21:49	22:09	21:32	20:19	18:56	16:40	15:45			15:45
31	08:16	15:33 (B3)		06:51		04:36		05:13	06:15		07:20					08:51
	16:42	23	15:56 (B3)		19:50		21:51		21:30	20:16		16:38				15:46
Potential sun hours	235	266		366	426	508	529	529	469	385	324	247				216
Total, worst case	191	143											338			
Sun reduction	0.13	0.20											0.08			
Oper. time red.	0.94	0.94											0.94			
Wind dir. red.	0.66	0.66											0.66			
Total reduction	0.08	0.12											0.05			
Total, real	16	18										17				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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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
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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
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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	08:40 15:38
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Total, worst case												
Sun reduction												
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Total reduction												
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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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 2 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (67)

Assumptions for shadow calculations

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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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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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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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) []

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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	04:53 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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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
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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												
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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 17:34	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
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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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Total, worst case												
Sun reduction												
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Nomales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (160)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:23 16:36	08:24 15:45	
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44	
3	08:50 15:50	08:11 16:49	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43	
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:25 21:02	04:32 21:57	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42	
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10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:38	
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38	
12	08:44 16:04	07:52 17:10	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:24	07:46 16:13	08:40 15:38	
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38	
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:26 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37	
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16	08:40 16:11	07:43 17:19	06:31 18:19	06:09 20:24	05:00 21:26	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:37	
17	08:39 16:13	07:40 17:21	06:29 18:22	06:07 20:26	04:58 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38	5 11:19 (B17)
18	08:38 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38	6 11:25 (B17)
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	7 11:26 (B17)
20	08:35 16:19	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38	8 11:27 (B17)
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	8 11:28 (B17)
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	8 11:28 (B17)
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	8 11:29 (B17)
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40	8 11:29 (B17)
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	6 11:28 (B17)
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	5 11:28 (B17)
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	3 11:27 (B17)
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:47	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43	
29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:44	
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:51 15:45	
31	08:17 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:17		07:20 16:38		08:51 15:46	
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216	
Total, worst case													72
Sun reduction													0.07
Oper. time red.													0.94
Wind dir. red.													0.62
Total reduction													0.04
Total, real													3

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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
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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
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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 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: OŠ ini (kad. apz. 76860060068001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (218)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:52 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:40	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Day in month	Sun rise (hh:mm)	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales - Shadow Receptor: 1.0 × 1.0
Assumptions for shadow calculations

Azimuth: 0.0° Slope: 90.0° (118)

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	07:52 (B18) 16:56 (B22)	06:49 19:53	07:19 (B15) 20:55
2	08:50 15:49	08:13 16:47	07:08 17:50	07:52 (B18) 16:55 (B22)	06:46 19:55	07:18 (B15) 20:57
3	08:50 15:51	08:11 16:50	07:06 17:52	07:52 (B18) 16:54 (B22)	06:43 19:57	07:16 (B15) 20:59
4	08:50 15:52	08:09 16:52	07:03 17:54	07:52 (B18) 16:53 (B22)	06:41 19:59	07:16 (B15) 21:01
5	08:49 15:53	08:07 16:54	07:00 17:56	07:53 (B18) 16:50 (B22)	06:38 20:01	07:15 (B15) 21:04
6	08:49 15:55	08:05 16:56	06:58 17:58	07:54 (B18) 16:48 (B22)	06:35 20:03	07:15 (B15) 21:06
7	08:48 15:56	08:03 16:58	06:55 18:00	07:55 (B18) 08:12 (B18)	06:33 20:05	07:15 (B15) 21:08
8	08:47 15:58	08:00 17:01	06:53 18:03	07:57 (B18) 08:09 (B18)	06:30 20:07	07:14 (B15) 21:10
9	08:47 15:59	07:58 17:03	06:50 18:05		06:27 20:10	07:15 (B15) 21:12
10	08:46 16:01	07:56 17:05	06:47 18:07		06:25 20:12	07:15 (B15) 21:14
11	08:45 16:03	07:54 17:07	06:45 18:09		06:22 20:14	07:16 (B15) 21:16
12	08:44 16:04	07:52 17:10	06:42 18:11		06:20 20:16	07:16 (B15) 21:18
13	08:43 16:06	07:49 17:12	06:39 18:13		06:17 20:18	07:18 (B15) 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15		06:14 20:20	07:19 (B15) 21:22
15	08:41 16:10	07:45 17:16	06:34 18:17		06:12 20:22	07:22 (B15) 21:23
16	08:40 16:12	07:42 17:19	06:31 18:19		06:09 20:24	05:00 21:25
17	08:39 16:14	07:40 17:21	06:29 18:22		06:07 20:26	04:59 21:27
18	08:37 16:16	07:38 17:23	16:39 (B22) 16:49 (B22)	06:26 18:24	06:04 20:28	04:57 21:29
19	08:36 16:18	07:35 17:25	16:37 (B22) 16:52 (B22)	06:23 18:26	06:02 20:30	04:55 21:31
20	08:35 16:20	07:33 17:28	16:35 (B22) 16:53 (B22)	06:21 18:28	05:59 20:32	04:53 21:33
21	08:33 16:22	07:31 17:30	08:00 (B18) 16:55 (B22)	06:18 18:30	05:57 20:35	04:52 21:35
22	08:32 16:24	07:28 17:32	07:57 (B18) 16:56 (B22)	06:15 18:32	05:54 20:37	04:50 21:36
23	08:30 16:26	07:26 17:34	07:56 (B18) 16:57 (B22)	06:13 18:34	05:52 20:39	04:48 21:38
24	08:29 16:28	07:23 17:36	07:55 (B18) 16:57 (B22)	06:10 18:36	05:49 20:41	04:47 21:40
25	08:27 16:30	07:21 17:39	07:53 (B18) 16:57 (B22)	06:07 18:38	05:47 20:43	04:45 21:42
26	08:25 16:32	07:18 17:41	07:53 (B18) 16:57 (B22)	06:05 18:40	05:44 20:45	04:44 21:43
27	08:24 16:34	07:16 17:43	07:52 (B18) 16:57 (B22)	06:02 18:42	05:42 20:47	04:42 21:45
28	08:22 16:36	07:13 17:45	07:52 (B18) 16:57 (B22)	05:59 18:45	05:39 20:49	04:41 21:46
29	08:20 16:38		06:57 19:47	07:26 (B15) 07:37 (B15)	05:37 20:51	04:39 21:48
30	08:18 16:41		06:54 19:49	07:23 (B15) 07:39 (B15)	05:35 20:53	5 05:46 (B4) 04:38 05:38 (B4)
31	08:16 16:43		06:51 19:51	07:20 (B15) 07:40 (B15)	05:33 20:55	12 05:50 (B4) 04:37 05:36 (B4)
Potential sun hours	235	266	366	426	508	529
Total, worst case		416	336	345	33	993
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.65	0.65	0.66	0.67	0.67
Total reduction		0.12	0.25	0.31	0.36	0.35
Total, real		51	84	106	12	350

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

July		August		September		October		November		December	
1	04:30	05:33 (B4)	05:16	06:17	07:15 (B15)	07:17		07:22	08:24		
	22:09	34 06:07 (B4)	21:28	20:14	23 07:38 (B15)	18:53		16:36	15:45		
2	04:31	05:33 (B4)	05:17	06:19	07:14 (B15)	07:19		07:25	08:26		
	22:08	34 06:07 (B4)	21:26	20:11	25 07:39 (B15)	18:51		16:34	15:44		
3	04:32	05:34 (B4)	05:19	06:21	07:13 (B15)	07:21		07:27	08:27		
	22:08	33 06:07 (B4)	21:24	20:09	26 07:39 (B15)	18:48		16:31	15:43		
4	04:32	05:35 (B4)	05:21	06:23	07:12 (B15)	07:23		07:29	08:29		
	22:07	32 06:07 (B4)	21:22	20:06	27 07:39 (B15)	18:45		16:29	15:42		
5	04:33	05:36 (B4)	05:23	06:25	07:11 (B15)	07:25	08:36 (B18)	07:31	08:31		
	22:07	30 06:06 (B4)	21:19	20:03	27 07:38 (B15)	18:43	8 08:44 (B18)	16:27	15:41		
6	04:35	05:36 (B4)	05:25	06:27	07:11 (B15)	07:27		08:32 (B18)	07:33	08:32	
	22:06	30 06:06 (B4)	21:17	20:01	27 07:38 (B15)	18:40	15 08:47 (B18)	16:25	15:41		
7	04:36	05:37 (B4)	05:27	06:29	07:10 (B15)	07:29		08:30 (B18)	07:35	08:34	
	22:05	29 06:06 (B4)	21:15	19:58	28 07:38 (B15)	18:38	26 17:22 (B22)	16:23	15:40		
8	04:37	05:38 (B4)	05:29	06:31	07:10 (B15)	07:31		08:28 (B18)	07:38	08:35	
	22:04	27 06:05 (B4)	21:13	19:55	27 07:37 (B15)	18:35	36 17:25 (B22)	16:21	15:40		
9	04:38	05:39 (B4)	05:31	06:33	07:11 (B15)	07:34		08:27 (B18)	07:40	08:36	
	22:03	25 06:04 (B4)	21:11	19:53	26 07:37 (B15)	18:32	41 17:26 (B22)	16:19	15:39		
10	04:39	05:40 (B4)	05:33	06:35	07:11 (B15)	07:36		08:27 (B18)	07:42	08:38	
	22:02	23 06:03 (B4)	21:08	19:50	25 07:36 (B15)	18:30	45 17:28 (B22)	16:17	15:39		
11	04:41	05:41 (B4)	05:35	06:37	07:12 (B15)	07:38		08:26 (B18)	07:44	08:39	
	22:01	21 06:02 (B4)	21:06	19:47	22 07:34 (B15)	18:27	48 17:29 (B22)	16:15	15:38		
12	04:42	05:42 (B4)	05:37	06:39	07:12 (B15)	07:40		08:25 (B18)	07:46	08:40	
	22:00	19 06:01 (B4)	21:04	19:45	21 07:33 (B15)	18:25	51 17:29 (B22)	16:13	15:38		
13	04:43	05:45 (B4)	05:39	06:41	07:14 (B15)	07:42		08:25 (B18)	07:48	08:41	
	21:59	15 06:00 (B4)	21:01	19:42	17 07:31 (B15)	18:22	52 17:29 (B22)	16:11	15:38		
14	04:45	05:47 (B4)	05:41	06:43	07:16 (B15)	07:44		08:25 (B18)	07:51	08:43	
	21:58	10 05:57 (B4)	20:59	19:39	12 07:28 (B15)	18:19	51 17:29 (B22)	16:09	15:38		
15	04:46		05:43	06:45		07:46		08:24 (B18)	07:53	08:44	
	21:56		20:57	19:37		18:17	53 17:29 (B22)	16:07	15:38		
16	04:48		05:45	06:47		07:48		08:25 (B18)	07:55	08:45	
	21:55		20:54	19:34		18:14	51 17:29 (B22)	16:06	15:38		
17	04:49		05:47	06:49		07:50		08:26 (B18)	07:57	08:45	
	21:54		20:52	19:31		18:12	50 17:29 (B22)	16:04	15:38		
18	04:51		05:49	06:51		07:52		08:26 (B18)	07:59	08:46	
	21:52		20:49	19:28		18:09	47 17:28 (B22)	16:02	15:38		
19	04:52		05:51	06:53		07:54		08:27 (B18)	08:01	08:47	
	21:51		20:47	19:26		18:07	43 17:27 (B22)	16:01	15:38		
20	04:54		05:53	06:55		07:57		08:29 (B18)	08:03	08:48	
	21:49		20:44	19:23		18:04	38 17:27 (B22)	15:59	15:38		
21	04:56		05:55	06:57		07:59		08:31 (B18)	08:05	08:48	
	21:48		20:42	19:20		18:02	31 17:25 (B22)	15:57	15:39		
22	04:57		05:57	06:59		08:01		17:05 (B22)	08:07	08:49	
	21:46		20:40	19:18		17:59	18 17:23 (B22)	15:56	15:39		
23	04:59		05:59	07:01		08:03		17:08 (B22)	08:09	08:49	
	21:44		20:37	19:15		17:57	14 17:22 (B22)	15:55	15:40		
24	05:01		06:01	07:03		08:05		17:10 (B22)	08:11	08:50	
	21:43		20:34	19:12		17:54	8 17:18 (B22)	15:53	15:40		
25	05:03		06:03	07:05		07:07			08:13	08:50	
	21:41		20:32	19:10		16:52			15:52	15:41	
26	05:04		06:05	07:07		07:09			08:15	08:50	
	21:39		20:29	19:07		16:50			15:51	15:42	
27	05:06		06:07	07:09		07:12			08:17	08:51	
	21:37		20:27	19:04		16:47			15:49	15:43	
28	05:08		06:09	07:11		07:14			08:19	08:51	
	21:36		20:24	9 07:32 (B15)	19:02	16:45			15:48	15:44	
29	05:10		06:11	07:20 (B15)	07:13	07:16			08:21	08:51	
	21:34		20:22	14 07:34 (B15)	18:59	16:43			15:47	15:44	
30	05:12		06:13	07:18 (B15)	07:15	07:18			08:22	08:51	
	21:32		20:19	18 07:36 (B15)	18:56	16:40			15:46	15:45	
31	05:14		06:15	07:16 (B15)		07:20				08:51	
	21:30		20:16	21 07:37 (B15)		16:38				15:47	
Potential sun hours	529		469	385		324		247		216	
Total, worst case	362		62	333		726					
Sun reduction	0.49		0.50	0.43		0.26					
Oper. time red.	0.94		0.94	0.94		0.94					
Wind dir. red.	0.67		0.66	0.66		0.65					
Total reduction	0.31		0.31	0.26		0.16					
Total, real	112		19	88		114					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	07:52 (B18) 16:54 (B22)	06:49 19:53	07:20 (B15) 20:55	04:36 21:52	05:33 (B4) 06:01 (B4)
2	08:50 15:49	08:13 16:47	07:08 17:50	07:52 (B18) 16:53 (B22)	06:46 19:55	07:18 (B15) 20:57	04:35 21:54	05:33 (B4) 06:02 (B4)
3	08:50 15:51	08:11 16:50	07:06 17:52	07:53 (B18) 16:52 (B22)	06:43 19:57	07:17 (B15) 20:59	04:34 21:55	05:32 (B4) 06:02 (B4)
4	08:50 15:52	08:09 16:52	07:03 17:54	07:53 (B18) 16:50 (B22)	06:41 19:59	07:17 (B15) 21:01	04:33 21:56	05:31 (B4) 06:03 (B4)
5	08:49 15:53	08:07 16:54	07:00 17:56	07:53 (B18) 16:48 (B22)	06:38 20:01	07:16 (B15) 21:04	04:32 21:58	05:32 (B4) 06:05 (B4)
6	08:49 15:55	08:05 16:56	06:58 17:58	07:55 (B18) 16:45 (B22)	06:35 20:03	07:16 (B15) 21:06	04:31 21:59	05:31 (B4) 06:05 (B4)
7	08:48 15:56	08:03 16:58	06:55 18:00	07:56 (B18) 08:11 (B18)	06:33 20:05	07:16 (B15) 21:08	04:30 22:00	05:30 (B4) 06:05 (B4)
8	08:47 15:58	08:00 17:01	06:53 18:03	07:58 (B18) 08:08 (B18)	06:30 20:07	07:16 (B15) 21:10	04:29 22:01	05:31 (B4) 06:06 (B4)
9	08:47 15:59	07:58 17:03	06:50 18:05		06:27 20:10	07:16 (B15) 21:12	04:28 22:02	05:30 (B4) 06:06 (B4)
10	08:46 16:01	07:56 17:05	06:47 18:07		06:25 20:12	07:16 (B15) 21:14	04:28 22:03	05:30 (B4) 06:07 (B4)
11	08:45 16:03	07:54 17:07	06:45 18:09		06:22 20:14	07:18 (B15) 21:16	04:27 22:04	05:30 (B4) 06:07 (B4)
12	08:44 16:04	07:52 17:10	06:42 18:11		06:20 20:16	07:18 (B15) 21:18	04:27 22:05	05:30 (B4) 06:08 (B4)
13	08:43 16:06	07:49 17:12	06:39 18:13		06:17 20:18	07:20 (B15) 21:20	04:26 22:06	05:30 (B4) 06:09 (B4)
14	08:42 16:08	07:47 17:14	06:37 18:15		06:14 20:20	07:22 (B15) 21:22	04:26 22:07	05:30 (B4) 06:08 (B4)
15	08:41 16:10	07:45 17:16	06:34 18:17		06:12 20:22	05:02 21:23	04:26 22:07	05:30 (B4) 06:09 (B4)
16	08:40 16:12	07:42 17:19	06:31 18:19		06:09 20:24	05:00 21:25	04:25 22:08	05:30 (B4) 06:09 (B4)
17	08:39 16:14	07:40 17:21	06:29 18:22	16:39 (B22) 16:46 (B22)	06:07 20:26	04:59 21:27	04:25 22:08	05:30 (B4) 06:10 (B4)
18	08:37 16:16	07:38 17:23	06:26 18:24	16:35 (B22) 16:49 (B22)	06:04 20:28	04:57 21:29	04:25 22:09	05:30 (B4) 06:10 (B4)
19	08:36 16:18	07:35 17:25	06:23 18:26	16:34 (B22) 16:52 (B22)	06:02 20:30	04:55 21:31	04:25 22:09	05:30 (B4) 06:10 (B4)
20	08:35 16:20	07:33 17:28	06:21 18:28	08:04 (B18) 16:53 (B22)	05:59 20:32	04:53 21:33	04:25 22:10	05:30 (B4) 06:10 (B4)
21	08:33 16:22	07:31 17:30	06:18 18:30	08:00 (B18) 16:54 (B22)	05:57 20:35	04:52 21:35	04:25 22:10	05:30 (B4) 06:10 (B4)
22	08:32 16:24	07:28 17:32	06:15 18:32	07:57 (B18) 16:54 (B22)	05:54 20:37	04:50 21:36	04:25 22:10	05:31 (B4) 06:11 (B4)
23	08:30 16:26	07:26 17:34	06:13 18:34	07:56 (B18) 16:55 (B22)	05:52 20:39	04:48 21:38	04:26 22:10	05:31 (B4) 06:11 (B4)
24	08:29 16:28	07:23 17:36	06:10 18:36	07:55 (B18) 16:55 (B22)	05:49 20:41	04:47 21:40	04:26 22:10	05:31 (B4) 06:11 (B4)
25	08:27 16:30	07:21 17:39	06:07 18:38	07:53 (B18) 16:55 (B22)	05:47 20:43	04:45 21:42	04:26 22:10	05:32 (B4) 06:12 (B4)
26	08:25 16:32	07:18 17:41	06:05 18:40	07:53 (B18) 16:55 (B22)	05:44 20:45	04:44 21:43	04:27 22:10	05:32 (B4) 06:12 (B4)
27	08:24 16:34	07:16 17:43	06:02 18:42	07:52 (B18) 16:55 (B22)	05:42 20:47	04:42 21:45	04:27 22:10	05:33 (B4) 06:12 (B4)
28	08:22 16:36	07:13 17:45	05:59 18:45	07:53 (B18) 16:55 (B22)	05:39 20:49	04:41 21:46	04:28 22:10	05:33 (B4) 06:12 (B4)
29	08:20 16:38		06:57 19:47	06:36 (B15) 07:26 (B15)	05:37 20:51	04:39 21:48	04:28 22:10	05:33 (B4) 06:12 (B4)
30	08:18 16:41		06:54 19:49	07:23 (B15) 07:41 (B15)	05:35 20:53	04:38 21:50	04:29 22:09	05:34 (B4) 06:12 (B4)
31	08:16 16:43		06:51 19:51	07:21 (B15) 07:42 (B15)		04:37 21:51	05:34 (B4) 06:00 (B4)	
Potential sun hours	235	266	366	426	508	529		
Total, worst case		438	334	325	103	1114		
Sun reduction		0.20	0.41	0.50	0.57	0.56		
Oper. time red.		0.94	0.94	0.94	0.94	0.94		
Wind dir. red.		0.65	0.65	0.66	0.67	0.67		
Total reduction		0.12	0.25	0.31	0.36	0.35		
Total, real		54	83	100	37	392		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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Assumptions for shadow calculations

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Operational time

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425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July			August			September			October			November			December		
1	04:30		05:34 (B4)	05:16			06:17		07:16 (B15)	07:17			07:22		08:24			
	22:09	38	06:12 (B4)	21:28			20:14	22	07:38 (B15)	18:53			16:36		15:45			
2	04:31		05:35 (B4)	05:17			06:19		07:15 (B15)	07:19			07:25		08:26			
	22:08	37	06:12 (B4)	21:26			20:11	24	07:39 (B15)	18:51			16:34		15:44			
3	04:32		05:35 (B4)	05:19			06:21		07:14 (B15)	07:21			07:27		08:27			
	22:08	37	06:12 (B4)	21:24			20:09	26	07:40 (B15)	18:48			16:31		15:43			
4	04:32		05:36 (B4)	05:21			06:23		07:14 (B15)	07:23			07:29		08:29			
	22:07	36	06:12 (B4)	21:22			20:06	26	07:40 (B15)	18:45			16:29		15:42			
5	04:33		05:36 (B4)	05:23			06:25		07:12 (B15)	07:25		08:37 (B18)	07:31		08:31			
	22:07	36	06:12 (B4)	21:19			20:03	27	07:39 (B15)	18:43	6	08:43 (B18)	16:27		15:41			
6	04:35		05:37 (B4)	05:25			06:27		07:12 (B15)	07:27			08:33 (B18)	07:33	08:32			
	22:06	34	06:11 (B4)	21:17			20:01	27	07:39 (B15)	18:40	13	08:46 (B18)	16:25		15:41			
7	04:36		05:38 (B4)	05:27			06:29		07:11 (B15)	07:29			08:31 (B18)	07:35	08:34			
	22:05	33	06:11 (B4)	21:15			19:58	28	07:39 (B15)	18:38	17	08:48 (B18)	16:23		15:40			
8	04:37		05:38 (B4)	05:29			06:31		07:11 (B15)	07:31			08:29 (B18)	07:38	08:35			
	22:04	33	06:11 (B4)	21:13			19:55	27	07:38 (B15)	18:35	32	17:22 (B22)	16:21		15:40			
9	04:38		05:39 (B4)	05:31			06:33		07:11 (B15)	07:34			08:27 (B18)	07:40	08:36			
	22:03	31	06:10 (B4)	21:11			19:53	27	07:38 (B15)	18:32	40	17:24 (B22)	16:19		15:39			
10	04:39		05:40 (B4)	05:33			06:35		07:12 (B15)	07:36			08:27 (B18)	07:42	08:38			
	22:02	29	06:09 (B4)	21:08			19:50	25	07:37 (B15)	18:30	44	17:26 (B22)	16:17		15:39			
11	04:41		05:41 (B4)	05:35			06:37		07:12 (B15)	07:38			08:26 (B18)	07:44	08:39			
	22:01	28	06:09 (B4)	21:06			19:47	24	07:36 (B15)	18:27	47	17:26 (B22)	16:15		15:38			
12	04:42		05:41 (B4)	05:37			06:39		07:13 (B15)	07:40			08:26 (B18)	07:46	08:40			
	22:00	27	06:08 (B4)	21:04			19:45	21	07:34 (B15)	18:25	49	17:27 (B22)	16:13		15:38			
13	04:43		05:43 (B4)	05:39			06:41		07:14 (B15)	07:42			08:25 (B18)	07:48	08:41			
	21:59	25	06:08 (B4)	21:01			19:42	19	07:33 (B15)	18:22	51	17:27 (B22)	16:11		15:38			
14	04:45		05:44 (B4)	05:41			06:43		07:15 (B15)	07:44			08:25 (B18)	07:51	08:43			
	21:58	22	06:06 (B4)	20:59			19:39	15	07:30 (B15)	18:19	51	17:27 (B22)	16:09		15:38			
15	04:46		05:46 (B4)	05:43			06:45		07:18 (B15)	07:46			08:25 (B18)	07:53	08:44			
	21:56	18	06:04 (B4)	20:57			19:37	9	07:27 (B15)	18:17	52	17:28 (B22)	16:07		15:38			
16	04:48		05:48 (B4)	05:45			06:47			07:48			08:25 (B18)	07:55	08:45			
	21:55	15	06:03 (B4)	20:54			19:34			18:14	52	17:28 (B22)	16:06		15:38			
17	04:49		05:51 (B4)	05:47			06:49			07:50			08:26 (B18)	07:57	08:45			
	21:54	9	06:00 (B4)	20:52			19:31			18:12	50	17:27 (B22)	16:04		15:38			
18	04:51			05:49			06:51			07:52			08:26 (B18)	07:59	08:46			
	21:52			20:49			19:28			18:09	47	17:26 (B22)	16:02		15:38			
19	04:52			05:51			06:53			07:54			08:27 (B18)	08:01	08:47			
	21:51			20:47			19:26			18:07	44	17:25 (B22)	16:01		15:38			
20	04:54			05:53			06:55			07:57			08:29 (B18)	08:03	08:48			
	21:49			20:45			19:23			18:04	39	17:25 (B22)	15:59		15:38			
21	04:56			05:55			06:57			07:59			08:31 (B18)	08:05	08:48			
	21:48			20:42			19:20			18:02	33	17:24 (B22)	15:57		15:39			
22	04:57			05:57			06:59			08:01			17:03 (B22)	08:07	08:49			
	21:46			20:40			19:18			17:59	19	17:22 (B22)	15:56		15:39			
23	04:59			05:59			07:01			08:03			17:05 (B22)	08:09	08:49			
	21:44			20:37			19:15			17:57	16	17:21 (B22)	15:55		15:40			
24	05:01			06:01			07:03			08:05			17:06 (B22)	08:11	08:50			
	21:43			20:34			19:12			17:54	13	17:19 (B22)	15:53		15:40			
25	05:03			06:03			07:05			07:07			16:10 (B22)	08:13	08:50			
	21:41			20:32			19:10			16:52	4	16:14 (B22)	15:52		15:41			
26	05:04			06:05			07:07			07:09				08:15	08:50			
	21:39			20:29			19:07			16:50				15:51	15:42			
27	05:06			06:07			07:09			07:12				08:17	08:51			
	21:37			20:27			19:04			16:47				15:49	15:43			
28	05:08			06:09			07:11			07:14				08:19	08:51			
	21:36			20:24			19:02			16:45				15:48	15:44			
29	05:10			06:11		07:22 (B15)	07:13			07:16				08:21	08:51			
	21:34			20:22	11	07:33 (B15)	18:59			16:43				15:47	15:44			
30	05:12			06:13		07:20 (B15)	07:15			07:18				08:22	08:51			
	21:32			20:19	16	07:36 (B15)	18:56			16:40				15:46	15:45			
31	05:14			06:15		07:18 (B15)				07:20					08:51			
	21:30			20:16	19	07:37 (B15)				16:38					15:47			
Potential sun hours	529			469			385			324			247		216			
Total, worst case	488			46			347			719								
Sun reduction	0.49			0.50			0.43			0.26								
Oper. time red.	0.94			0.94			0.94			0.94								
Wind dir. red.	0.67			0.66			0.66			0.65								
Total reduction	0.31			0.31			0.26			0.16								
Total, real	152			14			91			113								

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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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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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)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Pumpuri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (199)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Pumpuri (kad. apz. 56960040091) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (76)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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 18:05	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
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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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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
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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.												
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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:

10/04/2024 05:50/4.0.531

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
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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

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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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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
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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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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
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20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
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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
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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 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:56	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:58	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:50	08:11 16:49	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:56	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:25 21:02	04:32 21:57	04:32 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
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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:

10/04/2024 05:50/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:54 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
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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
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	08:14 17:45	08:18 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:33	06:11 20:22	07:13 18:59	08:16 17:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Rijasvecumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (206)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 20:55	05:33 21:53	04:36 22:09	04:30 21:28		06:17 20:14	22	07:04 (B14) 07:26 (B14)	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 (B14) 20:58	05:30 21:54	04:35 22:09	04:31 21:26		06:19 20:11	23	07:03 (B14) 07:26 (B14)	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 (B14) 21:00	05:28 21:55	04:34 22:08	04:32 21:24		06:21 20:09	24	07:02 (B14) 07:26 (B14)	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	07:07 (B14) 21:02	05:26 21:57	04:33 22:07	04:33 21:22		06:23 20:06	24	07:02 (B14) 07:26 (B14)	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 (B14) 21:04	05:24 21:58	04:34 22:07	04:32 21:20		06:25 20:04	25	07:01 (B14) 07:26 (B14)	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 (B14) 21:06	05:21 21:59	04:31 22:06	04:35 21:17		06:27 20:01	25	07:01 (B14) 07:26 (B14)	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 (B14) 21:08	05:19 22:00	04:30 22:05	04:36 21:15		06:29 19:58	23	07:01 (B14) 07:24 (B14)	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 (B14) 21:10	05:17 22:01	04:29 22:04	04:37 21:13		06:31 19:56	22	07:01 (B14) 07:23 (B14)	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 (B14) 21:12	05:15 22:02	04:29 22:03	04:38 21:11		06:33 19:53	22	07:02 (B14) 07:22 (B14)	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 (B14) 21:14	05:13 22:03	04:28 22:02	04:40 21:08		06:35 19:50	20	07:04 (B14) 07:20 (B14)	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 (B14) 21:16	05:11 22:04	04:41 22:01	04:41 21:06		06:37 19:48	12	07:06 (B14) 07:18 (B14)	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 (B14) 21:18	05:09 22:05	04:42 22:00	04:37 21:04		06:39 19:45	8	07:16 (B14)	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 (B14) 21:20	05:07 22:06	04:44 21:59	04:39 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	07:07 (B14) 21:22	05:05 22:07	04:45 21:58	04:45 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	07:09 (B14) 21:24	05:03 22:07	04:46 21:57	04:46 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	07:20 (B14) 21:25	05:01 22:08	04:48 21:55	04:48 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	07:21 (B14) 21:27	04:59 22:08	04:46 21:54	04:50 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	07:22 (B14) 21:29	04:57 22:09	04:45 21:52	04:51 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	07:23 (B14) 21:31	04:55 22:09	04:53 21:51	04:55 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	07:24 (B14) 21:33	04:54 22:10	04:25 21:49	04:54 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	07:25 (B14) 21:35	04:52 22:10	04:26 21:48	04:56 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	07:26 (B14) 21:37	04:50 22:10	04:26 21:46	04:58 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	07:27 (B14) 21:38	04:49 22:10	04:26 21:45	04:59 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	07:28 (B14) 21:40	04:47 22:10	04:26 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	07:29 (B14) 21:42	04:45 22:10	04:27 21:41	05:03 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	07:30 (B14) 21:43	04:44 22:10	04:27 21:39	05:05 20:30		07:07 19:07			08:08 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	07:31 (B14) 21:45	04:42 22:10	04:28 21:38	05:06 20:27		07:09 19:04			08:10 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	07:32 (B14) 21:47	04:41 22:10	04:28 21:36	05:08 20:24	07:10 (B14)	07:11 19:02			08:12 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	07:33 (B14) 21:48	04:40 22:10	04:29 21:34	05:10 20:22	07:08 (B14)	07:13 18:59			08:14 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:06 17:49	05:54 18:49		05:35 20:53	07:34 (B14) 21:50	04:38 22:09	04:29 21:32	05:12 20:19	07:06 (B14)	07:15 18:56			08:16 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:02 19:51	05:52 19:51	07:17 (B14) 07:24 (B14)	20:53	07:35 (B14) 21:51	04:37 21:30	05:14 20:17	06:15 20:17	07:05 (B14) 07:05 (B14)	07:15 20:17	18	07:24 (B14) 07:25 (B14)	08:18 17:41	08:24 15:46	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469		385			324	247	216
Total, worst case						300				64				244		
Sun reduction						0.50				0.50				0.43		
Oper. time red.						0.94				0.94				0.94		
Wind dir. red.						0.66				0.66				0.66		
Total reduction						0.26				0.31				0.26		
Total, real			2			93				20				65		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51		13:46 (B22)	08:15		13:55 (B22)	07:11		06:49				05:32		04:36			
	15:48	35	14:21 (B22)	16:45	37	14:32 (B22)	17:47		19:53				20:55		21:53			
2	08:50		13:46 (B22)	08:13		13:57 (B22)	07:08		06:46				05:30		04:35			
	15:49	36	14:22 (B22)	16:47	34	14:31 (B22)	17:50		19:55				20:57		21:54			
3	08:50		13:46 (B22)	08:11		13:58 (B22)	07:06		06:43				05:28		04:34			
	15:51	37	14:23 (B22)	16:50	32	14:30 (B22)	17:52		19:57				20:59		21:55			
4	08:50		13:46 (B22)	08:09		14:00 (B22)	07:03		06:41				05:26		04:33			
	15:52	37	14:23 (B22)	16:52	30	14:30 (B22)	17:54		19:59				21:02		21:57			
5	08:49		13:47 (B22)	08:07		14:02 (B22)	07:00		06:38				05:23		04:32			
	15:53	38	14:25 (B22)	16:54	26	14:28 (B22)	17:56		20:01				21:04		21:58			
6	08:49		13:47 (B22)	08:05		14:03 (B22)	06:58		06:35				05:21		04:31			
	15:55	38	14:25 (B22)	16:56	23	14:26 (B22)	17:58		20:03				21:06		21:59			
7	08:48		13:47 (B22)	08:03		14:06 (B22)	06:55		06:33				05:19		04:30			
	15:56	39	14:26 (B22)	16:59	18	14:24 (B22)	18:00		20:05				21:08		22:00			
8	08:47		13:47 (B22)	08:00		14:11 (B22)	06:53		06:30				05:17		04:29			
	15:58	39	14:26 (B22)	17:01	9	14:20 (B22)	18:03		20:07				21:10		22:01			
9	08:47		13:47 (B22)	07:58			06:50		06:27				05:15		04:28			
	15:59	40	14:27 (B22)	17:03			18:05		20:10		8	07:01 (B4)	21:12		22:02			
10	08:46		13:47 (B22)	07:56			06:47		06:25				06:50 (B4)		05:13		04:28	
	16:01	41	14:28 (B22)	17:05			18:07		20:12		13	07:03 (B4)	21:14		22:03			
11	08:45		13:47 (B22)	07:54			06:45		06:22				06:48 (B4)		05:10		04:27	
	16:03	42	14:29 (B22)	17:08			18:09		20:14		17	07:05 (B4)	21:16		22:04			
12	08:44		13:47 (B22)	07:52			06:42		06:20				06:46 (B4)		05:08		04:27	
	16:04	41	14:28 (B22)	17:10			18:11		20:16		19	07:05 (B4)	21:18		22:05			
13	08:43		13:47 (B22)	07:49			06:39		06:17				06:45 (B4)		05:06		04:26	
	16:06	42	14:29 (B22)	17:12			18:13		20:18		21	07:06 (B4)	21:20		22:06			
14	08:42		13:48 (B22)	07:47			06:37		06:14				06:44 (B4)		05:04		04:26	
	16:08	42	14:30 (B22)	17:14			18:15		20:20		22	07:06 (B4)	21:22		22:07			
15	08:41		13:47 (B22)	07:45			06:34		06:12				06:44 (B4)		05:02		04:26	
	16:10	43	14:30 (B22)	17:17			18:17		20:22		23	07:07 (B4)	21:24		22:07			
16	08:40		13:48 (B22)	07:43			06:31		06:09				06:43 (B4)		05:01		04:25	
	16:12	43	14:31 (B22)	17:19			18:20		20:24		23	07:06 (B4)	21:25		22:08			
17	08:39		13:48 (B22)	07:40			06:29		06:07				06:43 (B4)		04:59		04:25	
	16:14	43	14:31 (B22)	17:21			18:22		20:26		23	07:06 (B4)	21:27		22:08			
18	08:37		13:48 (B22)	07:38			06:26		06:04				06:42 (B4)		04:57		04:25	
	16:16	44	14:32 (B22)	17:23			18:24		20:28		23	07:05 (B4)	21:29		22:09			
19	08:36		13:48 (B22)	07:35			06:23		06:02				06:43 (B4)		04:55		04:25	
	16:18	44	14:32 (B22)	17:25			18:26		20:30		22	07:05 (B4)	21:31		22:09			
20	08:35		13:49 (B22)	07:33			06:21		05:59				06:42 (B4)		04:53		04:25	
	16:20	44	14:33 (B22)	17:28			18:28		20:32		22	07:04 (B4)	21:33		22:10			
21	08:33		13:49 (B22)	07:31			06:18		05:57				06:43 (B4)		04:52		04:25	
	16:22	44	14:33 (B22)	17:30			18:30		20:35		20	07:03 (B4)	21:35		22:10			
22	08:32		13:49 (B22)	07:28			06:15		05:54				06:45 (B4)		04:50		04:25	
	16:24	44	14:33 (B22)	17:32			18:32		20:37		17	07:02 (B4)	21:36		22:10			
23	08:30		13:49 (B22)	07:26			06:13		05:52				06:45 (B4)		04:48		04:26	
	16:26	44	14:33 (B22)	17:34			18:34		20:39		15	07:00 (B4)	21:38		22:10			
24	08:29		13:50 (B22)	07:23			06:10		05:49				06:47 (B4)		04:47		04:26	
	16:28	43	14:33 (B22)	17:37			18:36		20:41		11	06:58 (B4)	21:40		22:10			
25	08:27		13:51 (B22)	07:21			06:07		05:47				06:52 (B4)		04:45		04:26	
	16:30	43	14:34 (B22)	17:39			18:38		20:43		2	06:54 (B4)	21:42		22:10			
26	08:25		13:52 (B22)	07:18			06:05		05:44						04:44		04:27	
	16:32	42	14:34 (B22)	17:41			18:40		20:45						21:43		22:10	
27	08:24		13:52 (B22)	07:16			06:02		05:42						04:42		04:27	
	16:34	42	14:34 (B22)	17:43			18:43		20:47						21:45		22:10	
28	08:22		13:53 (B22)	07:13			05:59		05:39						04:41		04:28	
	16:36	41	14:34 (B22)	17:45			18:45		20:49						21:47		22:10	
29	08:20		13:53 (B22)				06:57		05:37						04:39		04:28	
	16:39	41	14:34 (B22)				19:47		20:51						21:48		22:10	
30	08:18		13:54 (B22)				06:54		05:35						04:38		04:29	
	16:41	39	14:33 (B22)				19:49		20:53						21:50		22:09	
31	08:17		13:54 (B22)				06:51								04:37			
	16:43	38	14:32 (B22)				19:51								21:51			
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1269			209					301									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.94			0.94					0.94									
Wind dir. red.	0.66			0.66					0.66									
Total reduction	0.08			0.13					0.31									
Total, real	105			26					93									

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 (B4)	07:17	07:23
	22:09	21:28	20:14	17 07:04 (B4)	18:54	16:36
2	04:31	05:17	06:19	06:49 (B4)	07:19	07:25
	22:08	21:26	20:11	13 07:02 (B4)	18:51	16:34
3	04:32	05:19	06:21	06:51 (B4)	07:21	07:27
	22:08	21:24	20:09	8 06:59 (B4)	18:48	16:31
4	04:33	05:21	06:23	07:23	07:29	13:35 (B22)
	22:07	21:22	20:06	18:46	16:29	19 13:54 (B22)
5	04:34	05:23	06:25	07:25	07:31	13:33 (B22)
	22:07	21:19	20:03	18:43	16:27	23 13:56 (B22)
6	04:35	05:25	06:27	07:27	07:33	13:31 (B22)
	22:06	21:17	20:01	18:40	16:25	27 13:58 (B22)
7	04:36	05:27	06:29	07:29	07:36	13:29 (B22)
	22:05	21:15	19:58	18:38	16:23	30 13:59 (B22)
8	04:37	05:29	06:31	07:32	07:38	13:29 (B22)
	22:04	21:13	19:55	18:35	16:21	32 14:01 (B22)
9	04:38	05:31	06:33	07:34	07:40	13:27 (B22)
	22:03	21:11	19:53	18:32	16:19	35 14:02 (B22)
10	04:39	05:33	06:35	07:36	07:42	13:26 (B22)
	22:02	21:08	19:50	18:30	16:17	37 14:03 (B22)
11	04:41	05:35	06:37	07:38	07:44	13:26 (B22)
	22:01	21:06	19:47	18:27	16:15	38 14:04 (B22)
12	04:42	05:37	06:39	07:40	07:46	13:25 (B22)
	22:00	21:04	19:45	18:25	16:13	39 14:04 (B22)
13	04:43	05:39	06:41	07:42	07:49	13:25 (B22)
	21:59	21:01	19:42	18:22	16:11	41 14:06 (B22)
14	04:45	05:41	06:43	07:44	07:51	13:25 (B22)
	21:58	20:59	19:39	18:19	16:09	41 14:06 (B22)
15	04:46	05:43	06:45	07:46	07:53	13:24 (B22)
	21:57	20:57	19:37	18:17	16:08	42 14:06 (B22)
16	04:48	05:45	06:47	07:48	07:55	13:24 (B22)
	21:55	20:54	19:34	18:14	16:06	43 14:07 (B22)
17	04:49	05:47	06:49	07:50	07:57	13:24 (B22)
	21:54	20:52	19:31	18:12	16:04	43 14:07 (B22)
18	04:51	05:49	06:51	07:52	07:59	13:24 (B22)
	21:52	20:49	5 07:01 (B4)	18:09	16:02	43 14:07 (B22)
19	04:52	05:51	06:53	07:54	08:01	13:24 (B22)
	21:51	20:47	12 07:04 (B4)	18:07	16:01	44 14:08 (B22)
20	04:54	05:53	06:55	07:57	08:03	13:24 (B22)
	21:49	20:45	16 07:06 (B4)	18:04	15:59	44 14:08 (B22)
21	04:56	05:55	06:57	07:59	08:05	13:24 (B22)
	21:48	20:42	18 07:07 (B4)	18:02	15:58	44 14:08 (B22)
22	04:57	05:57	06:59	08:01	08:07	13:25 (B22)
	21:46	20:40	20 07:08 (B4)	17:59	15:56	44 14:09 (B22)
23	04:59	05:59	07:01	08:03	08:09	13:25 (B22)
	21:45	20:37	22 07:09 (B4)	17:57	15:55	44 14:09 (B22)
24	05:01	06:01	07:03	08:05	08:11	13:25 (B22)
	21:43	20:35	23 07:09 (B4)	17:55	15:53	44 14:09 (B22)
25	05:03	06:03	07:05	07:07	08:13	13:26 (B22)
	21:41	20:32	23 07:09 (B4)	16:52	15:52	43 14:09 (B22)
26	05:04	06:05	07:07	07:09	08:15	13:26 (B22)
	21:39	20:29	23 07:08 (B4)	16:50	15:51	43 14:09 (B22)
27	05:06	06:07	07:09	07:12	08:17	13:27 (B22)
	21:37	20:27	24 07:08 (B4)	16:47	15:49	43 14:10 (B22)
28	05:08	06:09	07:11	07:14	08:19	13:28 (B22)
	21:36	20:24	24 07:08 (B4)	16:45	15:48	42 14:10 (B22)
29	05:10	06:11	07:13	07:16	08:21	13:28 (B22)
	21:34	20:22	22 07:07 (B4)	16:43	15:47	42 14:10 (B22)
30	05:12	06:13	07:15	07:18	08:22	13:29 (B22)
	21:32	20:19	21 07:06 (B4)	16:40	15:46	42 14:11 (B22)
31	05:14	06:15	07:17	07:20		08:51
	21:30	20:17	19 07:05 (B4)	16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		272	38		1062	1096
Sun reduction		0.50	0.43		0.08	0.07
Oper. time red.		0.94	0.94		0.94	0.94
Wind dir. red.		0.66	0.66		0.66	0.66
Total reduction		0.31	0.26		0.05	0.04
Total, real		84	10		54	48

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	08:41 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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	09:00 (B22) 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	08:38 (B22) 15:45
2	08:51 15:49	08:13 16:47	09:01 (B22) 17:50	07:08 19:55	06:46 20:58	05:30 21:54	04:31 22:09	04:31 21:26	05:18 20:11	06:19 18:51	07:25 16:34	08:36 (B22) 15:44
3	08:50 15:51	08:11 16:50	09:01 (B22) 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	08:35 (B22) 15:43
4	08:50 15:52	08:09 16:52	09:02 (B22) 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	08:33 (B22) 15:42
5	08:49 15:53	08:07 16:54	09:03 (B22) 17:56	07:01 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	08:33 (B22) 15:42
6	08:49 15:55	08:05 16:56	09:03 (B22) 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	07:28 16:25	08:32 (B22) 15:41
7	08:48 15:56	08:03 16:59	09:04 (B22) 18:01	06:55 20:06	06:33 21:08	05:19 22:00	04:36 22:05	04:36 21:15	05:27 19:58	06:29 18:38	07:30 16:23	08:32 (B22) 15:40
8	08:48 15:58	08:01 17:01	09:05 (B22) 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:32 (B22) 15:40
9	08:47 15:59	07:58 17:03	09:06 (B22) 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	08:32 (B22) 15:39
10	08:46 16:01	07:56 17:05	09:09 (B22) 18:07	06:47 20:12	06:25 21:14	05:13 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:32 (B22) 15:39
11	08:45 16:03	07:54 17:08	09:20 (B22) 18:07	06:45 20:12	06:22 21:14	05:11 22:03	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:32 (B22) 15:38
12	08:44 16:05	07:52 17:10	09:20 (B22) 18:07	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	08:32 (B22) 15:38
13	08:43 16:06	07:50 17:12	09:20 (B22) 18:07	06:40 20:16	06:17 21:20	05:06 22:06	04:43 22:02	05:39 21:59	06:41 19:42	07:42 18:22	07:49 16:11	08:33 (B22) 15:38
14	08:42 16:08	07:47 17:14	09:20 (B22) 18:07	06:37 20:20	06:15 21:22	05:04 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:33 (B22) 15:38
15	08:41 16:10	07:45 17:17	09:20 (B22) 18:07	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	08:34 (B22) 15:38
16	08:40 16:12	07:43 17:19	09:20 (B22) 18:07	06:32 20:24	06:09 21:26	05:01 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:35 (B22) 15:38
17	08:39 16:14	07:40 17:21	09:20 (B22) 18:07	06:29 20:26	06:07 21:27	04:59 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:36 (B22) 15:38
18	08:38 16:16	07:38 17:23	09:20 (B22) 18:07	06:26 20:28	06:04 21:29	04:57 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:37 (B22) 15:38
19	08:36 16:18	07:36 17:26	09:20 (B22) 18:07	06:24 20:31	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 16:01	08:39 (B22) 15:38
20	08:35 16:20	07:33 17:28	09:20 (B22) 18:07	06:21 20:33	06:00 21:33	04:53 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:40 (B22) 15:39
21	08:33 16:22	07:31 17:30	09:20 (B22) 18:07	06:18 20:35	05:57 21:35	04:52 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:43 (B22) 15:39
22	08:32 16:24	07:28 17:32	09:20 (B22) 18:07	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 15:56	08:51 (B22) 15:39
23	08:30 16:26	07:26 17:34	09:20 (B22) 18:07	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 15:55	08:50 (B22) 15:40
24	08:29 16:28	07:23 17:37	09:20 (B22) 18:07	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 15:53	08:51 (B22) 15:41
25	08:27 16:30	07:21 17:39	09:20 (B22) 18:07	06:08 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 15:52	08:50 (B22) 15:41
26	08:26 16:32	07:18 17:41	09:20 (B22) 18:07	06:05 20:45	05:44 21:43	04:44 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 15:51	08:51 (B22) 15:42
27	08:24 16:34	07:16 17:43	09:20 (B22) 18:07	06:02 20:47	05:42 21:45	04:42 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:47	08:17 15:49	08:51 (B22) 15:43
28	08:22 16:36	07:13 17:45	09:20 (B22) 18:07	05:59 20:49	05:40 21:47	04:41 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:45	08:19 15:48	08:51 (B22) 15:44
29	08:20 16:39	07:11 17:46	09:20 (B22) 18:07	05:57 20:51	05:37 21:48	04:40 22:10	04:29 21:34	05:10 20:22	06:11 18:59	07:13 17:46	08:21 15:47	08:51 (B22) 15:45
30	08:19 16:41	07:09 17:49	09:20 (B22) 18:07	05:54 20:53	05:35 21:50	04:38 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 17:41	08:22 15:46	08:51 (B22) 15:46
31	08:17 16:43	07:09 17:51	09:20 (B22) 18:07	06:51 21:51	05:37 21:51	04:37 22:10	05:14 21:30	06:15 20:17	07:20 16:38	08:42 (B22) 08:46 (B22)	08:22 15:46	08:51 (B22) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	212	210								4	425	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.94	0.94								0.94	0.94	
Wind dir. red.	0.59	0.59								0.59	0.59	
Total reduction	0.07	0.11								0.14	0.05	
Total, real	16	23								1	19	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 08:26 (B14)	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 (B14) 08:26 (B14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	9	07:32 (B14) 07:41 (B14)	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	07:58 (B14) 08:26 (B14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	14	07:29 (B14) 07:43 (B14)	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 (B14) 08:25 (B14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	18	07:26 (B14) 07:44 (B14)	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 (B14) 08:24 (B14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	22	07:24 (B14) 07:46 (B14)	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	25	07:58 (B14) 08:23 (B14)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	25	07:22 (B14) 07:47 (B14)	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 (B14) 08:22 (B14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	26	07:21 (B14) 07:47 (B14)	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 (B14) 08:20 (B14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	27	07:21 (B14) 07:48 (B14)	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 (B14) 08:19 (B14)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	28	07:20 (B14) 07:48 (B14)	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 (B14) 08:17 (B14)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	28	07:19 (B14) 07:47 (B14)	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	5	08:07 (B14) 08:12 (B14)	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	29	07:19 (B14) 07:48 (B14)	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	28	07:19 (B14) 07:47 (B14)	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	27	07:19 (B14) 07:46 (B14)	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	26	07:20 (B14) 07:46 (B14)	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	24	07:20 (B14) 07:44 (B14)	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	21	07:21 (B14) 07:42 (B14)	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	19	07:21 (B14) 07:40 (B14)	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	14	07:24 (B14) 07:38 (B14)	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	7	07:27 (B14) 07:34 (B14)	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	04:25 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	08:09 (B14) 08:21 (B14)	08:05 17:55	12		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	08:06 (B14) 08:23 (B14)	07:07 16:52	17		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	08:04 (B14) 08:25 (B14)	07:10 16:50	21		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	08:02 (B14) 08:26 (B14)	07:12 16:48	24		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	08:01 (B14) 08:26 (B14)	07:14 16:45	25		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	08:00 (B14) 08:26 (B14)	07:16 16:43	26		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	07:59 (B14) 08:27 (B14)	07:18 16:41	28		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			08:24 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	529	529	469	385		324		247	216	
Total, worst case				392						153		241				
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.94						0.94		0.94				
Wind dir. red.				0.62						0.62		0.62				
Total reduction				0.24						0.25		0.15				
Total, real				94						38		36				

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:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 08:18 (B14)	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 (B14) 08:17 (B14)	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 (B14) 08:16 (B14)	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 (B14) 08:15 (B14)	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 (B14) 08:13 (B14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	8	07:24 (B14) 07:32 (B14)	06:36 20:03	05:21 21:06	04:35 21:59	05:25 21:17	06:27 20:01		07:28 18:40	15	07:56 (B14) 08:11 (B14)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	13	07:21 (B14) 07:34 (B14)	06:33 20:06	05:19 21:08	04:30 22:00	05:27 21:15	06:29 19:58		07:30 18:38	11	07:58 (B14) 08:09 (B14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	18	07:18 (B14) 07:36 (B14)	06:30 21:08	05:17 22:01	04:29 22:04	05:29 21:31	06:31 19:56		07:32 18:35	4	08:00 (B14) 08:04 (B14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	21	07:16 (B14) 07:37 (B14)	06:28 21:10	05:15 21:12	04:29 22:02	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	24	07:14 (B14) 07:38 (B14)	06:25 21:12	05:13 22:03	04:28 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	26	07:12 (B14) 07:39 (B14)	06:22 21:14	05:11 22:04	04:27 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	27	07:12 (B14) 07:39 (B14)	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 16:15	08:40 15:39
13	08:43 16:06	07:50 17:12	06:40 18:13	28	07:11 (B14) 07:39 (B14)	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 (B14) 07:38 (B14)	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 (B14) 07:38 (B14)	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 (B14) 07:38 (B14)	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 (B14) 07:37 (B14)	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	24	07:11 (B14) 07:35 (B14)	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 (B14) 07:35 (B14)	06:02 21:31	04:55 21:31	04:25 21:29	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	20	07:13 (B14) 07:33 (B14)	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	16	07:14 (B14) 07:30 (B14)	05:57 21:35	04:52 21:35	04:25 22:10	05:55 20:42	06:57 19:21	08:03 (B14)	07:59 18:02	10	08:13 (B14)	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	11	07:17 (B14) 07:28 (B14)	05:54 21:37	04:50 21:37	04:26 22:10	05:57 20:40	06:59 19:18	08:00 (B14)	08:01 18:00	15	08:15 (B14)	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	07:58 (B14)	08:03 17:57	19	08:17 (B14)	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 (B14)	08:05 17:55	22	08:18 (B14)	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 (B14)	07:07 16:52	24	08:19 (B14)	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 (B14)	07:10 16:50	25	08:19 (B14)	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 (B14)	07:12 16:48	26	08:19 (B14)	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 (B14)	07:14 16:45	27	08:19 (B14)	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	07:52 (B14)	07:16 16:43	27	08:19 (B14)	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 (B14)	07:18 16:41	28	08:19 (B14)	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			08:24 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case				366						223		150				
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.94						0.94		0.94				
Wind dir. red.				0.62						0.62		0.62				
Total reduction				0.24						0.25		0.15				
Total, real				88						56		23				

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	11	07:46 (B14) 07:57 (B14)	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	7	07:09 (B14) 07:16 (B14)	06:20 20:16	05:09 21:18	04:27 22:05	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	15	07:05 (B14) 07:20 (B14)	06:17 20:18	05:07 21:20	04:27 22:06	05:39 21:02	06:41 19:42	12	07:52 (B14) 08:04 (B14)			07:49 18:22	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	19	07:02 (B14) 07:21 (B14)	06:15 20:20	05:05 21:22	04:26 22:07	05:41 21:58	06:43 19:39	17	07:49 (B14) 08:06 (B14)			07:51 18:20	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	22	07:01 (B14) 07:23 (B14)	06:12 20:22	05:03 21:24	04:26 22:07	05:43 21:57	06:45 19:37	21	07:47 (B14) 08:08 (B14)			07:53 18:17	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	25	06:59 (B14) 07:24 (B14)	06:09 20:24	05:01 21:25	04:26 22:08	05:45 21:55	06:47 19:34	24	07:45 (B14) 08:09 (B14)			07:55 18:15	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	27	06:57 (B14) 07:24 (B14)	06:07 20:26	04:59 21:27	04:25 22:08	05:47 21:54	06:49 19:31	26	07:44 (B14) 08:10 (B14)			07:50 18:12	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	29	06:56 (B14) 07:25 (B14)	06:04 20:28	04:57 21:29	04:25 22:09	05:49 21:52	06:51 19:29	27	07:43 (B14) 08:10 (B14)			07:52 18:09	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	29	06:56 (B14) 07:25 (B14)	06:02 20:31	04:55 21:31	04:25 22:09	05:51 21:51	06:53 19:26	29	07:42 (B14) 08:11 (B14)			07:55 18:07	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	30	06:55 (B14) 07:25 (B14)	05:59 20:33	04:54 21:33	04:25 22:10	05:53 21:49	06:55 19:23	30	07:41 (B14) 08:11 (B14)			07:57 18:04	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	31	06:54 (B14) 07:25 (B14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 21:48	06:57 19:21	30	07:41 (B14) 08:11 (B14)			07:59 18:02	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	30	06:55 (B14) 07:25 (B14)	05:54 20:37	04:50 21:37	04:26 22:10	05:57 21:46	06:59 19:18	30	07:40 (B14) 08:10 (B14)			08:01 18:00	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	30	06:54 (B14) 07:24 (B14)	05:52 20:39	04:48 21:38	04:26 22:10	05:59 21:45	07:01 19:15	30	07:40 (B14) 08:10 (B14)			08:03 17:57	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	29	06:54 (B14) 07:23 (B14)	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	29	07:03 08:09 (B14)			07:07 17:55	08:51 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	28	06:55 (B14) 07:23 (B14)	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	28	07:05 08:08 (B14)			07:07 17:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	26	06:55 (B14) 07:21 (B14)	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	28	07:07 08:08 (B14)			07:10 17:50	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	24	06:56 (B14) 07:20 (B14)	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:38	06:07 20:27	26	07:09 08:06 (B14)			07:12 17:48	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	22	06:57 (B14) 07:19 (B14)	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	24	07:11 08:05 (B14)			07:14 17:45	08:51 15:44
29	08:20 16:39	07:11 17:47	06:57 18:47	18	07:58 (B14) 08:16 (B14)	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	21	07:13 08:03 (B14)			07:16 17:43	08:51 15:45
30	08:19 16:41	07:09 17:54	06:54 18:49	13	08:00 (B14) 08:13 (B14)	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	17	07:15 08:01 (B14)			07:18 17:41	08:51 15:46
31	08:17 16:43	07:07 17:51	06:52 18:51				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				454						449			11			
Sun reduction				0.41						0.43			0.26			
Oper. time red.				0.94						0.94			0.94			
Wind dir. red.				0.63						0.63			0.63			
Total reduction				0.25						0.26			0.15			
Total, real				112						115			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:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50	08:14	07:11	06:49	05:33	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	22:09	21:28	20:14	18:54	16:36	15:45
2	08:50	08:12	07:08	06:46	05:30	04:35	04:31	05:18	06:19	07:19	07:24	08:25
	15:50	16:48	17:50	19:55	20:57	21:54	22:08	21:25	20:11	18:51	16:34	15:44
3	08:50	08:11	07:05	06:43	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	21:23	20:09	18:48	16:32	15:43
4	08:49	08:09	07:03	06:41	05:26	04:33	04:33	05:22	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	18:46	16:29	15:43
5	08:49	08:07	07:00	06:38	05:24	04:32	04:34	05:23	06:25	07:25	07:31	08:30
	15:54	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	21:59	22:06	21:17	20:01	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	16:59	18:00	20:05	21:07	22:00	22:05	21:15	19:58	18:38	16:23	15:40
8	08:47	08:00	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:31	07:38	08:35
	15:58	17:01	18:03	20:07	21:09	22:01	22:04	21:13	19:55	18:35	16:21	15:40
9	08:46	07:58	06:50	06:28	05:15	04:29	04:38	05:31	06:33	07:33	07:40	08:36
	16:00	17:03	18:05	20:09	21:11	22:02	22:03	21:10	19:53	18:32	16:19	15:39
10	08:46	07:56	06:47	06:25	05:13	04:28	04:40	05:33	06:35	07:36	07:42	08:38
	16:01	17:05	18:07	20:12	21:13	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	21:15	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	21:17	22:05	22:00	21:04	19:45	18:25	16:13	15:38
13	08:43	07:49	06:39	06:17	05:07	04:27	04:44	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	06:15	05:05	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	05:03	04:26	04:46	05:43	06:45	07:46	07:52	08:43
	16:10	17:17	18:17	20:22	21:23	22:07	21:56	20:57	19:37	18:17	16:08	15:38
16	08:40	07:42	06:31	06:09	05:01	04:26	04:48	05:45	06:47	07:48	07:55	08:44
	16:12	17:19	18:20	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	04:26	04:49	05:47	06:49	07:50	07:57	08:45
	16:14	17:21	18:22	20:26	21:27	22:08	21:53	20:52	19:31	18:12	16:04	15:38
18	08:37	07:38	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	16:03	15:38
19	08:36	07:35	06:23	06:02	04:55	04:25	04:53	05:51	06:53	07:54	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	15:38
20	08:34	07:33	06:21	05:59	04:54	04:25	04:54	05:53	06:55	07:56	08:03	08:47
	16:20	17:28	18:28	20:32	21:33	22:09	21:49	20:44	19:23	18:04	15:59	15:39
21	08:33	07:30	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	20:34	21:34	22:10	21:47	20:42	19:20	18:02	15:58	15:39
22	08:32	07:28	06:15	05:54	04:50	04:26	04:58	05:57	06:59	08:01	08:07	08:49
	16:24	17:32	18:32	20:36	21:36	22:10	21:46	20:39	19:18	17:59	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	17:34	18:34	20:39	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	08:50
	16:28	17:37	18:36	20:41	21:40	22:10	21:43	20:34	19:12	17:55	15:53	15:41
25	08:27	07:21	06:07	05:47	04:45	04:27	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	19:10	16:52	15:52	15:41
26	08:25	07:18	06:05	05:44	04:44	04:27	05:05	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	16:50	15:51	15:42
27	08:24	07:16	06:02	05:42	04:42	04:28	05:06	06:07	07:09	07:11	08:17	08:50
	16:34	17:43	18:42	20:47	21:45	22:10	21:37	20:27	19:04	16:47	15:50	15:43
28	08:22	07:13	05:59	05:40	04:41	04:28	05:08	06:09	07:11	07:14	08:18	08:51
	16:37	17:45	18:45	20:49	21:46	22:10	21:35	20:24	19:02	16:45	15:48	15:44
29	08:20		06:57	05:37	04:40	04:29	05:10	06:11	07:13	07:16	08:20	08:51
	16:39		19:47	20:51	21:48	22:09	21:33	20:22	18:59	16:43	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	08:51
	16:41		19:49	20:53	21:49	22:09	21:31	20:19	18:56	16:41	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		21:30	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:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	09:35 (B22) 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	08:24 15:45
2	08:50 15:49	08:13 16:47	09:35 (B22) 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	08:26 15:44
3	08:50 15:51	08:11 16:50	09:36 (B22) 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	08:28 15:43
4	08:50 15:52	08:09 16:52	09:36 (B22) 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	09:37 (B22) 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	08:31 15:42
6	08:49 15:55	08:05 16:56	09:36 (B22) 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	09:37 (B22) 18:00	06:55 20:05	06:33 21:08	05:19 22:00	04:36 22:05	04:36 21:15	05:27 19:58	06:29 18:38	07:30 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	09:38 (B22) 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	08:35 15:40
9	08:47 15:59	07:58 17:03	09:38 (B22) 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	08:37 15:39
10	08:46 16:01	07:56 17:05	09:39 (B22) 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	08:38 15:39
11	08:45 16:03	07:54 17:08	09:40 (B22) 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	08:39 15:38
12	08:44 16:04	07:52 17:10	09:40 (B22) 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	08:40 15:38
13	08:43 16:06	07:49 17:12	09:42 (B22) 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	08:42 15:38
14	08:42 16:08	07:47 17:14	09:42 (B22) 18:15	06:37 20:20	06:14 21:22	05:04 22:07	04:46 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	09:44 (B22) 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	08:44 15:38
16	08:40 16:12	07:43 17:19	09:46 (B22) 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	08:45 15:38
17	08:39 16:14	07:40 17:21	09:49 (B22) 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	08:46 15:38
18	08:37 16:16	07:38 17:23	09:54 (B22) 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 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	10:00 (B22) 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 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	10:03 (B22) 18:28	06:21 20:33	06:00 21:33	04:54 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	10:05 (B22) 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 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	10:07 (B22) 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 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	10:09 (B22) 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 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	10:11 (B22) 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 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	10:13 (B22) 18:38	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 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	10:15 (B22) 18:41	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 16:50	08:19 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	10:17 (B22) 18:43	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 16:47	08:21 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	10:19 (B22) 18:45	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 16:45	08:23 15:48	08:51 15:44
29	08:20 16:39	07:11 17:48	10:21 (B22) 18:47	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 16:43	08:25 15:47	08:51 15:45
30	08:18 16:41	07:09 17:55	10:23 (B22) 18:49	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 16:40	08:26 15:46	08:51 15:46
31	08:17 16:43	07:06 18:01	10:25 (B22) 19:01	05:51 21:51	05:31 21:57	04:37 22:10	05:14 21:30	06:15 20:17	07:20 16:38	08:23 15:45	08:27 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	636	621								217	1057	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.94	0.94								0.94	0.94	
Wind dir. red.	0.61	0.61								0.61	0.61	
Total reduction	0.08	0.11								0.15	0.05	
Total, real	48	71								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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:51	08:15	09:37 (B22)	07:11	06:49	05:33
	15:48	16:45	10:22 (B22)	17:48	19:53	20:55
2	08:50	08:13	09:38 (B22)	07:08	06:46	05:30
	15:49	16:47	10:23 (B22)	17:50	19:55	20:57
3	08:50	08:11	09:38 (B22)	07:06	06:43	05:28
	15:51	16:50	10:23 (B22)	17:52	19:57	21:00
4	08:50	08:09	09:38 (B22)	07:03	06:41	05:26
	15:52	16:52	10:23 (B22)	17:54	19:59	21:02
5	08:49	08:07	09:39 (B22)	07:00	06:38	05:23
	15:53	16:54	10:23 (B22)	17:56	20:01	21:04
6	08:49	08:05	09:38 (B22)	06:58	06:35	05:21
	15:55	16:56	10:23 (B22)	17:58	20:03	21:06
7	08:48	08:03	09:39 (B22)	06:55	06:33	05:19
	15:56	16:59	10:23 (B22)	18:00	20:05	21:08
8	08:48	08:01	09:40 (B22)	06:53	06:30	05:17
	15:58	17:01	10:23 (B22)	18:03	20:08	21:10
9	08:47	07:58	09:40 (B22)	06:50	06:28	05:15
	15:59	17:03	10:22 (B22)	18:05	20:10	21:12
10	08:46	07:56	09:40 (B22)	06:47	06:25	05:13
	16:01	17:05	10:21 (B22)	18:07	20:12	21:14
11	08:45	09:53 (B22)	07:54	09:42 (B22)	06:45	06:22
	16:03	17:08	10:21 (B22)	18:09	20:14	21:16
12	08:44	09:49 (B22)	07:52	09:42 (B22)	06:42	06:20
	16:04	17:10	10:20 (B22)	18:11	20:16	21:18
13	08:43	09:47 (B22)	07:49	09:43 (B22)	06:40	06:17
	16:06	17:12	10:19 (B22)	18:13	20:18	21:20
14	08:42	09:46 (B22)	07:47	09:44 (B22)	06:37	06:14
	16:08	17:14	10:17 (B22)	18:15	20:20	21:22
15	08:41	09:44 (B22)	07:45	09:45 (B22)	06:34	06:12
	16:10	17:17	10:16 (B22)	18:18	20:22	21:24
16	08:40	09:43 (B22)	07:43	09:46 (B22)	06:32	06:09
	16:12	17:19	10:14 (B22)	18:20	20:24	21:25
17	08:39	09:43 (B22)	07:40	09:49 (B22)	06:29	06:07
	16:14	17:21	10:12 (B22)	18:22	20:26	21:27
18	08:37	09:42 (B22)	07:38	09:51 (B22)	06:26	06:04
	16:16	17:23	10:09 (B22)	18:24	20:28	21:29
19	08:36	09:41 (B22)	07:36	09:57 (B22)	06:24	06:02
	16:18	17:26	10:04 (B22)	18:26	20:30	21:31
20	08:35	09:41 (B22)	07:33	06:21	05:59	04:53
	16:20	17:28	18:28	20:33	21:33	22:10
21	08:33	09:40 (B22)	07:31	06:18	05:57	04:52
	16:22	17:30	18:30	20:35	21:35	22:10
22	08:32	09:40 (B22)	07:28	06:16	05:54	04:50
	16:24	17:32	18:32	20:37	21:37	22:10
23	08:30	09:39 (B22)	07:26	06:13	05:52	04:48
	16:26	17:34	18:34	20:39	21:38	22:10
24	08:29	09:39 (B22)	07:23	06:10	05:49	04:47
	16:28	17:37	18:36	20:41	21:40	22:10
25	08:27	09:39 (B22)	07:21	06:07	05:47	04:45
	16:30	17:39	18:38	20:43	21:42	22:10
26	08:26	09:39 (B22)	07:18	06:05	05:44	04:44
	16:32	17:41	18:41	20:45	21:43	22:10
27	08:24	09:38 (B22)	07:16	06:02	05:42	04:42
	16:34	17:43	18:43	20:47	21:45	22:10
28	08:22	09:38 (B22)	07:13	05:59	05:40	04:41
	16:36	17:45	18:45	20:49	21:47	22:10
29	08:20	09:38 (B22)	06:57	05:37	04:40	04:29
	16:39	17:44	19:47	20:51	21:48	22:10
30	08:18	09:38 (B22)	06:54	05:35	04:38	04:29
	16:41	17:44	19:49	20:53	21:50	22:09
31	08:17	09:38 (B22)	06:51	04:37		
	16:43	17:45	19:51	21:51		
Potential sun hours	235	266	366	426	508	529
Total, worst case	664	692				
Sun reduction	0.13	0.20				
Oper. time red.	0.94	0.94				
Wind dir. red.	0.61	0.61				
Total reduction	0.08	0.12				
Total, real	51	80				

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)

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
425 448 518 446 469 751 755 902 1,169 1,037 801 535 8,256

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	09:10 (B22) 15:45
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:09 (B22) 15:44
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:09 (B22) 15:43
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:09 (B22) 15:42
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:08 (B22) 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:08 (B22) 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:08 (B22) 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:09 (B22) 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:08 (B22) 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:09 (B22) 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:09 (B22) 15:38
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:09 (B22) 15:38
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:10 (B22) 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:10 (B22) 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:10 (B22) 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:12 (B22) 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:12 (B22) 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:13 (B22) 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:14 (B22) 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:15 (B22) 15:39
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:15 (B22) 15:39
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:17 (B22) 15:39
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:18 (B22) 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:19 (B22) 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	09:20 (B22) 15:41
26	05:04 21:39	06:05 20:30	07:07 19:07	08:09 16:50	08:15 15:51	09:22 (B22) 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 16:47	08:17 15:49	09:24 (B22) 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 16:45	08:19 15:48	09:26 (B22) 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 16:43	08:21 15:47	09:28 (B22) 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 16:40	08:22 15:46	09:30 (B22) 15:46
31	05:14 21:30	06:15 20:17		08:19 16:38	08:23 15:47	09:32 (B22) 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case				264	1098	4
Sun reduction				0.26	0.08	0.07
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.61	0.61	0.61
Total reduction				0.15	0.05	0.04
Total, real				39	52	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:51	08:15	09:44 (B22)	07:11	06:49	05:33
	15:48	16:45	10:29 (B22)	17:48	19:53	20:55
2	08:50	08:13	09:44 (B22)	07:08	06:46	05:30
	15:49	16:47	10:29 (B22)	17:50	19:55	20:57
3	08:50	08:11	09:44 (B22)	07:06	06:43	05:28
	15:51	16:50	10:29 (B22)	17:52	19:57	21:00
4	08:50	08:09	09:45 (B22)	07:03	06:41	05:26
	15:52	16:52	10:29 (B22)	17:54	19:59	21:02
5	08:49	08:07	09:46 (B22)	07:00	06:38	05:23
	15:53	16:54	10:29 (B22)	17:56	20:01	21:04
6	08:49	08:05	09:45 (B22)	06:58	06:35	05:21
	15:55	16:56	10:28 (B22)	17:58	20:03	21:06
7	08:48	08:03	09:46 (B22)	06:55	06:33	05:19
	15:56	16:59	10:28 (B22)	18:00	20:05	21:08
8	08:48	09:54 (B22)	08:01	09:47 (B22)	06:53	06:30
	15:58	10:04 (B22)	17:01	10:28 (B22)	18:03	20:08
9	08:47	09:53 (B22)	07:58	09:47 (B22)	06:50	06:28
	15:59	10:07 (B22)	17:03	10:27 (B22)	18:05	20:10
10	08:46	09:52 (B22)	07:56	09:48 (B22)	06:47	06:25
	16:01	10:09 (B22)	17:05	10:27 (B22)	18:07	20:12
11	08:45	09:51 (B22)	07:54	09:49 (B22)	06:45	06:22
	16:03	10:11 (B22)	17:08	10:26 (B22)	18:09	20:14
12	08:44	09:50 (B22)	07:52	09:50 (B22)	06:42	06:20
	16:04	10:13 (B22)	17:10	10:24 (B22)	18:11	20:16
13	08:43	09:48 (B22)	07:49	09:51 (B22)	06:40	06:17
	16:06	10:14 (B22)	17:12	10:23 (B22)	18:13	20:18
14	08:42	09:48 (B22)	07:47	09:52 (B22)	06:37	06:14
	16:08	10:15 (B22)	17:14	10:21 (B22)	18:15	20:20
15	08:41	09:47 (B22)	07:45	09:55 (B22)	06:34	06:12
	16:10	10:16 (B22)	17:17	10:20 (B22)	18:18	20:22
16	08:40	09:47 (B22)	07:43	09:57 (B22)	06:32	06:09
	16:12	10:18 (B22)	17:19	10:16 (B22)	18:20	20:24
17	08:39	09:47 (B22)	07:40	10:01 (B22)	06:29	06:07
	16:14	10:19 (B22)	17:21	10:13 (B22)	18:22	20:26
18	08:37	09:46 (B22)	07:38		06:26	06:04
	16:16	10:20 (B22)	17:23		18:24	20:28
19	08:36	09:45 (B22)	07:35		06:24	06:02
	16:18	10:21 (B22)	17:26		18:26	20:30
20	08:35	09:46 (B22)	07:33		06:21	05:59
	16:20	10:22 (B22)	17:28		18:28	20:33
21	08:33	09:45 (B22)	07:31		06:18	05:57
	16:22	10:23 (B22)	17:30		18:30	20:35
22	08:32	09:44 (B22)	07:28		06:16	05:54
	16:24	10:24 (B22)	17:32		18:32	20:37
23	08:30	09:44 (B22)	07:26		06:13	05:52
	16:26	10:24 (B22)	17:34		18:34	20:39
24	08:29	09:45 (B22)	07:23		06:10	05:49
	16:28	10:26 (B22)	17:37		18:36	20:41
25	08:27	09:44 (B22)	07:21		06:07	05:47
	16:30	10:26 (B22)	17:39		18:38	20:43
26	08:26	09:44 (B22)	07:18		06:05	05:44
	16:32	10:27 (B22)	17:41		18:41	20:45
27	08:24	09:44 (B22)	07:16		06:02	05:42
	16:34	10:28 (B22)	17:43		18:43	20:47
28	08:22	09:44 (B22)	07:13		05:59	05:40
	16:36	10:28 (B22)	17:45		18:45	20:49
29	08:20	09:44 (B22)			06:57	05:37
	16:39	10:28 (B22)			19:47	20:51
30	08:18	09:44 (B22)			06:54	05:35
	16:41	10:29 (B22)			19:49	20:53
31	08:17	09:44 (B22)			06:51	
	16:43	10:29 (B22)			19:51	
Potential sun hours	235	266	366	426	508	529
Total, worst case	801	615				
Sun reduction	0.13	0.20				
Oper. time red.	0.94	0.94				
Wind dir. red.	0.61	0.61				
Total reduction	0.08	0.12				
Total, real	61	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	09:17 (B22) 09:56 (B22)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:16 (B22) 09:57 (B22)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:16 (B22) 09:58 (B22)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:16 (B22) 09:58 (B22)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:15 (B22) 09:58 (B22)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:15 (B22) 09:59 (B22)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:15 (B22) 09:59 (B22)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:15 (B22) 10:00 (B22)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:15 (B22) 10:00 (B22)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:15 (B22) 10:00 (B22)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:15 (B22) 10:00 (B22)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:15 (B22) 10:00 (B22)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:16 (B22) 10:00 (B22)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:16 (B22) 10:00 (B22)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:16 (B22) 09:59 (B22)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:17 (B22) 10:00 (B22)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:17 (B22) 09:59 (B22)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:19 (B22) 10:00 (B22)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:19 (B22) 09:59 (B22)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:19 (B22) 09:59 (B22)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:20 (B22) 09:58 (B22)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:22 (B22) 09:59 (B22)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:22 (B22) 09:58 (B22)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:23 (B22) 09:57 (B22)
25	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	09:24 (B22) 09:57 (B22)
26	05:04 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	09:25 (B22) 09:56 (B22)
27	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	09:27 (B22) 09:56 (B22)
28	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	09:28 (B22) 09:56 (B22)
29	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	09:30 (B22) 09:55 (B22)
30	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	09:31 (B22) 09:54 (B22)
31	05:14 21:30	06:15 20:17		07:20 16:38	09:18 (B22) 09:55 (B22)	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case				196	1171	64
Sun reduction				0.26	0.08	0.07
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.61	0.61	0.61
Total reduction				0.15	0.05	0.04
Total, real				29	55	3

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

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

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Smelceja - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (216)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Mezares_AB211223

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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	06:22 20:09	07:21 18:48	07:27 16:32	08:28 15:44
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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:

10/04/2024 05:50/4.0.531

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
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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 20:55	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
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12	08:44 16:05	07:52 17:10	08:20 (B22) 18:11	06:42 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	08:18 (B22) 18:13	06:40 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	08:17 (B22) 18:15	06:37 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	08:16 (B22) 18:18	06:34 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:55 (B22) 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	08:15 (B22) 18:20	06:32 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	08:52 (B22) 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	08:15 (B22) 18:22	06:29 20:26	05:07 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	09:05 (B22) 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	08:14 (B22) 18:24	06:26 20:28	05:04 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	08:48 (B22) 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	08:15 (B22) 18:26	06:24 20:31	05:02 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:47 (B22) 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	08:14 (B22) 18:28	06:21 20:33	05:59 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:46 (B22) 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	08:15 (B22) 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	09:09 (B22) 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	08:15 (B22) 18:32	06:16 20:37	05:54 21:37	04:25 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:45 (B22) 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	08:16 (B22) 18:34	06:13 20:39	05:52 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:45 (B22) 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	08:17 (B22) 18:36	06:10 20:41	05:49 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:45 (B22) 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	08:19 (B22) 18:38	06:08 20:43	05:47 21:42	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	09:09 (B22) 15:52	08:51 15:42
26	08:26 16:32	07:18 17:41	08:20 (B22) 18:41	06:05 20:45	05:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:08 (B22) 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	08:31 (B22)	06:02 20:47	05:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:48	07:46 (B22) 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45		05:59 20:49	05:40 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:07 (B22) 15:48	08:51 15:44
29	08:20 16:39			06:57 20:51	05:37 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:06 (B22) 15:47	08:51 15:45
30	08:19 16:41			06:54 20:53	05:35 21:50	04:38 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:03 (B22) 15:46	08:51 15:46
31	08:17 16:43			06:51 19:51	05:37 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 16:38	08:20 16:38	08:01 (B22)	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction		311								319		
Oper. time red.		0.20								0.26		
Wind dir. red.		0.94								0.94		
Total reduction		0.62								0.62		
Total, real		0.12								0.15		
		37								48		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 27	09:50 (B22) 16:45 15	10:06 (B22) 17:48 9	07:11 10:21 (B22) 17:50	06:49 19:53 17:55	05:33 20:55 20:58	04:36 21:53 21:54	04:30 22:09 22:09	05:16 21:28 21:26	06:17 20:14 20:11	07:17 18:54 18:51	07:23 16:36 16:34
2	08:51 15:49 28	09:51 (B22) 16:47 9	10:09 (B22) 17:50 9	07:08 10:21 (B22) 17:50	06:46 19:55 17:55	05:30 20:58 20:58	04:35 21:54 21:54	04:31 22:09 22:08	05:18 21:26 21:24	06:19 20:11 20:09	07:19 18:51 18:48	07:25 16:34 16:32
3	08:50 15:51 28	09:51 (B22) 16:50 9	10:19 (B22) 17:52 9	07:06 10:21 (B22) 17:52	06:43 19:57 17:52	05:28 21:00 21:00	04:34 21:55 21:55	04:32 22:08 22:07	05:19 21:24 21:22	06:21 20:09 20:06	07:21 18:48 18:46	07:27 16:32 16:29
4	08:50 15:52 29	09:50 (B22) 16:52 9	10:19 (B22) 17:54 9	07:03 10:21 (B22) 17:54	06:41 19:59 17:54	05:26 21:02 21:02	04:33 21:57 21:57	04:33 22:07 22:07	05:21 21:22 21:22	06:23 20:06 20:06	07:23 18:46 18:46	07:29 16:29 16:29
5	08:49 15:53 30	09:51 (B22) 16:54 9	10:21 (B22) 17:56 9	07:00 10:21 (B22) 17:56	06:38 19:58 17:56	05:23 21:04 21:04	04:32 21:58 21:58	04:34 22:07 22:07	05:23 21:20 21:20	06:25 20:03 20:03	07:25 18:43 18:43	07:31 16:27 16:27
6	08:49 15:55 30	09:51 (B22) 16:56 9	10:21 (B22) 17:58 9	06:58 10:21 (B22) 17:58	06:35 19:58 17:58	05:21 21:06 21:06	04:31 21:59 21:59	04:35 22:06 22:06	05:25 21:17 21:17	06:27 20:01 20:01	07:27 18:40 18:40	07:33 16:25 16:25
7	08:48 15:56 31	09:51 (B22) 16:59 9	10:21 (B22) 17:59 9	06:55 10:21 (B22) 17:59	06:33 19:59 17:59	05:19 21:08 21:08	04:30 21:58 21:58	04:36 22:09 22:09	05:27 21:24 21:24	06:29 20:06 20:06	07:30 18:46 18:46	07:36 16:29 16:29
8	08:48 15:58 32	09:51 (B22) 17:01 9	10:21 (B22) 18:01 9	06:53 10:21 (B22) 18:01	06:30 19:59 17:59	05:17 21:10 21:10	04:29 21:58 21:58	04:37 22:10 22:10	05:29 21:26 21:26	06:31 20:08 20:08	07:32 18:48 18:48	07:38 16:31 16:31
9	08:47 15:59 31	09:52 (B22) 17:03 9	10:22 (B22) 18:03 9	06:50 10:22 (B22) 18:03	06:28 19:59 17:59	05:15 21:12 21:12	04:28 22:02 22:02	04:38 22:13 22:13	05:31 21:33 21:33	06:33 20:10 20:10	07:34 18:50 18:50	07:40 16:37 16:37
10	08:46 16:01 32	09:52 (B22) 17:05 9	10:23 (B22) 18:05 9	06:47 10:23 (B22) 18:05	06:25 19:59 17:59	05:13 21:14 21:14	04:28 22:03 22:03	04:39 22:14 22:14	05:33 21:41 21:41	06:35 20:12 20:12	07:36 18:52 18:52	07:42 16:39 16:39
11	08:45 16:03 33	09:52 (B22) 17:08 9	10:24 (B22) 18:07 9	06:45 10:24 (B22) 18:07	06:22 19:59 17:59	05:11 21:16 21:16	04:27 22:04 22:04	04:41 22:01 22:01	05:35 21:47 21:47	06:37 20:14 20:14	07:38 18:54 18:54	07:44 16:41 16:41
12	08:44 16:04 32	09:53 (B22) 17:10 9	10:25 (B22) 18:09 9	06:42 10:25 (B22) 18:09	06:20 19:59 17:59	05:08 21:18 21:18	04:27 22:05 22:05	04:42 22:02 22:02	05:37 21:49 21:49	06:39 20:16 20:16	07:40 18:56 18:56	07:46 16:43 16:43
13	08:43 16:06 33	09:53 (B22) 17:12 9	10:26 (B22) 18:11 9	06:40 10:26 (B22) 18:11	06:17 19:59 17:59	05:06 21:20 21:20	04:26 22:06 22:06	04:43 22:03 22:03	05:39 21:51 21:51	06:41 20:18 20:18	07:42 18:58 18:58	07:49 16:45 16:45
14	08:42 16:08 33	09:53 (B22) 17:14 9	10:27 (B22) 18:13 9	06:37 10:27 (B22) 18:13	06:14 19:59 17:59	05:04 21:22 21:22	04:26 22:07 22:07	04:45 22:04 22:04	05:41 21:53 21:53	06:43 20:20 20:20	07:44 18:59 18:59	07:51 16:47 16:47
15	08:41 16:10 34	09:53 (B22) 17:17 9	10:28 (B22) 18:15 9	06:34 10:28 (B22) 18:15	06:12 19:59 17:59	05:03 21:24 21:24	04:26 22:08 22:08	04:46 22:05 22:05	05:43 21:55 21:55	06:45 20:22 20:22	07:46 19:01 19:01	07:53 16:49 16:49
16	08:40 16:12 34	09:53 (B22) 17:19 9	10:29 (B22) 18:17 9	06:32 10:29 (B22) 18:17	06:09 19:59 17:59	05:01 21:26 21:26	04:25 22:09 22:09	04:48 22:06 22:06	05:45 21:57 21:57	06:47 20:24 20:24	07:48 19:03 19:03	07:55 16:50 16:50
17	08:39 16:14 34	09:54 (B22) 17:21 9	10:30 (B22) 18:19 9	06:29 10:30 (B22) 18:19	06:07 19:59 17:59	04:59 21:27 21:27	04:25 22:10 22:10	04:49 22:07 22:07	05:47 21:59 21:59	06:49 20:26 20:26	07:50 19:05 19:05	07:57 16:52 16:52
18	08:38 16:16 34	09:54 (B22) 17:23 9	10:31 (B22) 18:21 9	06:26 10:31 (B22) 18:21	06:04 19:59 17:59	04:57 21:29 21:29	04:25 22:11 22:11	04:51 22:08 22:08	05:49 21:59 21:59	06:51 20:28 20:28	07:52 19:07 19:07	07:59 16:54 16:54
19	08:36 16:18 34	09:54 (B22) 17:26 9	10:32 (B22) 18:23 9	06:24 10:32 (B22) 18:23	06:02 19:59 17:59	04:55 21:31 21:31	04:25 22:12 22:12	04:52 22:09 22:09	05:51 21:59 21:59	06:53 20:30 20:30	07:55 19:09 19:09	08:01 16:56 16:56
20	08:35 16:20 34	09:55 (B22) 17:28 9	10:33 (B22) 18:25 9	06:21 10:33 (B22) 18:25	05:59 19:59 17:59	04:53 21:33 21:33	04:25 22:13 22:13	04:54 22:10 22:10	05:53 21:59 21:59	06:55 20:32 20:32	07:57 19:11 19:11	08:03 16:58 16:58
21	08:33 16:22 33	09:55 (B22) 17:30 9	10:34 (B22) 18:27 9	06:18 10:34 (B22) 18:27	05:57 19:59 17:59	04:52 21:35 21:35	04:25 22:14 22:14	04:56 22:11 22:11	05:55 21:59 21:59	06:57 20:34 20:34	07:59 19:13 19:13	08:05 17:00 17:00
22	08:32 16:24 33	09:55 (B22) 17:32 9	10:35 (B22) 18:29 9	06:16 10:35 (B22) 18:29	05:54 19:59 17:59	04:50 21:37 21:37	04:25 22:15 22:15	04:57 22:12 22:12	05:57 21:59 21:59	06:59 20:36 20:36	08:01 19:15 19:15	08:07 17:02 17:02
23	08:30 16:26 32	09:56 (B22) 17:34 9	10:36 (B22) 18:31 9	06:13 10:36 (B22) 18:31	05:52 19:59 17:59	04:48 21:39 21:39	04:26 22:16 22:16	04:59 22:13 22:13	05:59 21:59 21:59	07:01 20:38 20:38	08:09 19:17 19:17	08:15 17:04 17:04
24	08:29 16:28 32	09:56 (B22) 17:37 9	10:37 (B22) 18:33 9	06:10 10:37 (B22) 18:33	05:49 19:59 17:59	04:47 21:41 21:41	04:26 22:17 22:17	05:01 22:14 22:14	06:01 21:59 21:59	07:03 20:40 20:40	08:11 19:19 19:19	08:17 17:06 17:06
25	08:27 16:30 30	09:58 (B22) 17:39 9	10:39 (B22) 18:35 9	06:07 10:39 (B22) 18:35	05:47 19:59 17:59	04:45 21:43 21:43	04:26 22:18 22:18	05:03 22:15 22:15	06:03 21:59 21:59	07:05 20:42 20:42	08:13 19:21 19:21	08:19 17:08 17:08
26	08:26 16:32 30	09:58 (B22) 17:41 9	10:40 (B22) 18:37 9	06:05 10:40 (B22) 18:37	05:44 19:59 17:59	04:44 21:45 21:45	04:27 22:19 22:19	05:04 22:16 22:16	06:05 21:59 21:59	07:07 20:44 20:44	08:15 19:23 19:23	08:21 17:10 17:10
27	08:24 16:34 29	09:59 (B22) 17:43 9	10:41 (B22) 18:39 9	06:02 10:41 (B22) 18:39	05:42 19:59 17:59	04:42 21:47 21:47	04:27 22:20 22:20	05:06 22:17 22:17	06:07 21:59 21:59	07:09 20:46 20:46	08:17 19:25 19:25	08:23 17:12 17:12
28	08:22 16:36 27	10:00 (B22) 17:45 9	10:42 (B22) 18:41 9	05:59 10:42 (B22) 18:41	05:40 19:59 17:59	04:41 21:49 21:49	04:28 22:21 22:21	05:08 22:18 22:18	06:09 21:59 21:59	07:11 20:48 20:48	08:19 19:27 19:27	08:25 17:14 17:14
29	08:20 16:39 25	10:01 (B22) 17:47 9	10:43 (B22) 18:43 9	06:57 10:43 (B22) 18:43	05:37 19:59 17:59	04:40 21:51 21:51	04:29 22:22 22:22	05:10 22:19 22:19	06:11 21:59 21:59	07:13 20:50 20:50	08:21 19:29 19:29	08:27 17:16 17:16
30	08:18 16:41 22	10:03 (B22) 17:49 9	10:45 (B22) 18:45 9	06:54 10:45 (B22) 18:45	05:35 19:59 17:59	04:38 21:53 21:53	04:29 22:23 22:23	05:12 22:20 22:20	06:13 21:59 21:59	07:15 20:52 20:52	08:22 19:31 19:31	08:28 17:18 17:18
31	08:17 16:43 19	10:05 (B22) 17:51 9	10:47 (B22) 18:47 9	06:51 10:47 (B22) 18:47	05:31 19:59 17:59	04:37 21:55 21:55	04:31 22:24 22:24	05:14 22:21 22:21	06:15 21:59 21:59	07:20 20:54 20:54	08:29 19:33 19:33	08:35 17:20 17:20
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	945	24									640	829
Sun reduction	0.13	0.20									0.08	0.07
Oper. time red.	0.94	0.94									0.94	0.94
Wind dir. red.	0.61	0.61									0.61	0.61
Total reduction	0.08	0.12									0.05	0.04
Total, real	73	3									30	34

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January		February		March	April	May	June
1	08:51	09:59 (B22)	08:15	09:53 (B22)	07:11	06:49	05:33	04:36
	15:48	9 10:08 (B22)	16:45	41 10:34 (B22)	17:48	19:53	20:55	21:53
2	08:50	09:59 (B22)	08:13	09:54 (B22)	07:08	06:46	05:30	04:35
	15:49	12 10:11 (B22)	16:47	40 10:34 (B22)	17:50	19:55	20:57	21:54
3	08:50	09:57 (B22)	08:11	09:54 (B22)	07:06	06:43	05:28	04:34
	15:51	15 10:12 (B22)	16:50	40 10:34 (B22)	17:52	19:57	21:00	21:55
4	08:50	09:56 (B22)	08:09	09:55 (B22)	07:03	06:41	05:26	04:33
	15:52	17 10:13 (B22)	16:52	39 10:34 (B22)	17:54	19:59	21:02	21:57
5	08:49	09:57 (B22)	08:07	09:56 (B22)	07:00	06:38	05:23	04:32
	15:53	18 10:15 (B22)	16:54	38 10:34 (B22)	17:56	20:01	21:04	21:58
6	08:49	09:56 (B22)	08:05	09:56 (B22)	06:58	06:35	05:21	04:31
	15:55	21 10:17 (B22)	16:56	36 10:32 (B22)	17:58	20:03	21:06	21:59
7	08:48	09:55 (B22)	08:03	09:57 (B22)	06:55	06:33	05:19	04:30
	15:56	23 10:18 (B22)	16:59	35 10:32 (B22)	18:00	20:05	21:08	22:00
8	08:48	09:55 (B22)	08:01	09:59 (B22)	06:53	06:30	05:17	04:29
	15:58	24 10:19 (B22)	17:01	32 10:31 (B22)	18:03	20:08	21:10	22:01
9	08:47	09:54 (B22)	07:58	09:59 (B22)	06:50	06:28	05:15	04:28
	15:59	26 10:20 (B22)	17:03	30 10:29 (B22)	18:05	20:10	21:12	22:02
10	08:46	09:54 (B22)	07:56	10:01 (B22)	06:47	06:25	05:13	04:28
	16:01	27 10:21 (B22)	17:05	27 10:28 (B22)	18:07	20:12	21:14	22:03
11	08:45	09:54 (B22)	07:54	10:04 (B22)	06:45	06:22	05:11	04:27
	16:03	29 10:23 (B22)	17:08	23 10:27 (B22)	18:09	20:14	21:16	22:04
12	08:44	09:54 (B22)	07:52	10:05 (B22)	06:42	06:20	05:08	04:27
	16:04	30 10:24 (B22)	17:10	18 10:23 (B22)	18:11	20:16	21:18	22:05
13	08:43	09:53 (B22)	07:49	10:10 (B22)	06:40	06:17	05:06	04:26
	16:06	31 10:24 (B22)	17:12	10 10:20 (B22)	18:13	20:18	21:20	22:06
14	08:42	09:53 (B22)	07:47	06:37	06:14	05:04	04:26	
	16:08	33 10:26 (B22)	17:14	18:15	20:20	21:22	22:07	
15	08:41	09:52 (B22)	07:45	06:34	06:12	05:03	04:26	
	16:10	34 10:26 (B22)	17:17	18:18	20:22	21:24	22:07	
16	08:40	09:52 (B22)	07:43	06:32	06:09	05:01	04:25	
	16:12	35 10:27 (B22)	17:19	18:20	20:24	21:25	22:08	
17	08:39	09:53 (B22)	07:40	06:29	06:07	04:59	04:25	
	16:14	36 10:29 (B22)	17:21	18:22	20:26	21:27	22:08	
18	08:37	09:52 (B22)	07:38	06:26	06:04	04:57	04:25	
	16:16	37 10:29 (B22)	17:23	18:24	20:28	21:29	22:09	
19	08:36	09:51 (B22)	07:36	06:24	06:02	04:55	04:25	
	16:18	39 10:30 (B22)	17:26	18:26	20:30	21:31	22:09	
20	08:35	09:52 (B22)	07:33	06:21	05:59	04:53	04:25	
	16:20	39 10:31 (B22)	17:28	18:28	20:33	21:33	22:10	
21	08:33	09:52 (B22)	07:31	06:18	05:57	04:52	04:25	
	16:22	39 10:31 (B22)	17:30	18:30	20:35	21:35	22:10	
22	08:32	09:51 (B22)	07:28	06:16	05:54	04:50	04:25	
	16:24	41 10:32 (B22)	17:32	18:32	20:37	21:37	22:10	
23	08:30	09:51 (B22)	07:26	06:13	05:52	04:48	04:26	
	16:26	41 10:32 (B22)	17:34	18:34	20:39	21:38	22:10	
24	08:29	09:52 (B22)	07:23	06:10	05:49	04:47	04:26	
	16:28	41 10:33 (B22)	17:37	18:36	20:41	21:40	22:10	
25	08:27	09:52 (B22)	07:21	06:07	05:47	04:45	04:26	
	16:30	42 10:34 (B22)	17:39	18:38	20:43	21:42	22:10	
26	08:26	09:52 (B22)	07:18	06:05	05:44	04:44	04:27	
	16:32	42 10:34 (B22)	17:41	18:41	20:45	21:43	22:10	
27	08:24	09:52 (B22)	07:16	06:02	05:42	04:42	04:27	
	16:34	42 10:34 (B22)	17:43	18:43	20:47	21:45	22:10	
28	08:22	09:52 (B22)	07:13	05:59	05:40	04:41	04:28	
	16:36	43 10:35 (B22)	17:45	18:45	20:49	21:47	22:10	
29	08:20	09:53 (B22)		06:57	05:37	04:40	04:29	
	16:39	42 10:35 (B22)		19:47	20:51	21:48	22:10	
30	08:18	09:53 (B22)		06:54	05:35	04:38	04:29	
	16:41	42 10:35 (B22)		19:49	20:53	21:50	22:09	
31	08:17	09:53 (B22)		06:51		04:37		
	16:43	42 10:35 (B22)		19:51		21:51		
Potential sun hours	235		266	366	426	508	529	
Total, worst case	992		409					
Sun reduction	0.13		0.20					
Oper. time red.	0.94		0.94					
Wind dir. red.	0.61		0.61					
Total reduction	0.08		0.12					
Total, real	76		47					

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	07:23	09:31 (B22) 08:24 09:36 (B22)
	22:09	21:28	20:14	18:54	16:36	27 09:58 (B22) 15:45 29 10:05 (B22)
2	04:31	05:18	06:19	07:19	07:25	09:29 (B22) 08:26 09:37 (B22)
	22:09	21:26	20:11	18:51	16:34	30 09:59 (B22) 15:44 28 10:05 (B22)
3	04:32	05:19	06:21	07:21	07:27	09:28 (B22) 08:28 09:37 (B22)
	22:08	21:24	20:09	18:48	16:32	33 10:01 (B22) 15:43 26 10:03 (B22)
4	04:33	05:21	06:23	07:23	07:29	09:27 (B22) 08:29 09:39 (B22)
	22:07	21:22	20:06	18:46	16:29	35 10:02 (B22) 15:42 24 10:03 (B22)
5	04:34	05:23	06:25	07:25	07:31	09:26 (B22) 08:31 09:40 (B22)
	22:07	21:20	20:03	18:43	16:27	36 10:02 (B22) 15:42 23 10:03 (B22)
6	04:35	05:25	06:27	07:27	07:33	09:26 (B22) 08:32 09:42 (B22)
	22:06	21:17	20:01	18:40	16:25	37 10:03 (B22) 15:41 21 10:03 (B22)
7	04:36	05:27	06:29	07:30	07:36	09:25 (B22) 08:34 09:43 (B22)
	22:05	21:15	19:58	18:38	16:23	39 10:04 (B22) 15:40 19 10:02 (B22)
8	04:37	05:29	06:31	07:32	07:38	09:25 (B22) 08:35 09:44 (B22)
	22:04	21:13	19:55	18:35	16:21	40 10:05 (B22) 15:40 17 10:01 (B22)
9	04:38	05:31	06:33	07:34	07:40	09:24 (B22) 08:37 09:45 (B22)
	22:03	21:11	19:53	18:32	16:19	41 10:05 (B22) 15:39 15 10:00 (B22)
10	04:39	05:33	06:35	07:36	07:42	09:25 (B22) 08:38 09:48 (B22)
	22:02	21:08	19:50	18:30	16:17	41 10:06 (B22) 15:39 12 10:00 (B22)
11	04:41	05:35	06:37	07:38	07:44	09:24 (B22) 08:39 09:49 (B22)
	22:01	21:06	19:47	18:27	16:15	42 10:06 (B22) 15:38 10 09:59 (B22)
12	04:42	05:37	06:39	07:40	07:46	09:24 (B22) 08:40 09:52 (B22)
	22:00	21:04	19:45	18:25	16:13	42 10:06 (B22) 15:38 6 09:58 (B22)
13	04:43	05:39	06:41	07:42	07:49	09:25 (B22) 08:42
	21:59	21:02	19:42	18:22	16:11	42 10:07 (B22) 15:38
14	04:45	05:41	06:43	07:44	07:51	09:24 (B22) 08:43
	21:58	20:59	19:39	18:19	16:09	43 10:07 (B22) 15:38
15	04:46	05:43	06:45	07:46	07:53	09:24 (B22) 08:44
	21:57	20:57	19:37	18:17	16:08	42 10:06 (B22) 15:38
16	04:48	05:45	06:47	07:48	07:55	09:25 (B22) 08:45
	21:55	20:54	19:34	18:14	16:06	42 10:07 (B22) 15:38
17	04:49	05:47	06:49	07:50	07:57	09:25 (B22) 08:46
	21:54	20:52	19:31	18:12	16:04	42 10:07 (B22) 15:38
18	04:51	05:49	06:51	07:52	07:59	09:26 (B22) 08:46
	21:52	20:50	19:29	18:09	16:02	41 10:07 (B22) 15:38
19	04:52	05:51	06:53	07:55	08:01	09:26 (B22) 08:47
	21:51	20:47	19:26	18:07	16:01	41 10:07 (B22) 15:38
20	04:54	05:53	06:55	07:57	08:03	09:26 (B22) 08:48
	21:49	20:45	19:23	18:04	15:59	41 10:07 (B22) 15:39
21	04:56	05:55	06:57	07:59	08:05	09:27 (B22) 08:48
	21:48	20:42	19:20	18:02	15:58	39 10:06 (B22) 15:39
22	04:57	05:57	06:59	08:01	08:07	09:28 (B22) 08:49
	21:46	20:40	19:18	17:59	15:56	39 10:07 (B22) 15:39
23	04:59	05:59	07:01	08:03	08:09	09:28 (B22) 08:50
	21:45	20:37	19:15	17:57	15:55	39 10:07 (B22) 15:40
24	05:01	06:01	07:03	08:05	08:11	09:29 (B22) 08:50
	21:43	20:35	19:12	17:55	15:53	37 10:06 (B22) 15:41
25	05:03	06:03	07:05	07:07	08:13	09:30 (B22) 08:50
	21:41	20:32	19:10	16:52	15:52	36 10:06 (B22) 15:41
26	05:04	06:05	07:07	07:10	08:15	09:30 (B22) 08:51
	21:39	20:30	19:07	16:50	15:51	36 10:06 (B22) 15:42
27	05:06	06:07	07:09	07:12	08:17	09:32 (B22) 08:51
	21:38	20:27	19:04	16:47	15:49	34 10:06 (B22) 15:43
28	05:08	06:09	07:11	07:14	08:19	09:33 (B22) 08:51
	21:36	20:24	19:02	16:45	15:48	33 10:06 (B22) 15:44
29	05:10	06:11	07:13	07:16	08:21	09:34 (B22) 08:51
	21:34	20:22	18:59	16:43	15:47	32 10:06 (B22) 15:45
30	05:12	06:13	07:15	07:18	08:22	09:35 (B22) 08:51
	21:32	20:19	18:56	16:40	15:46	30 10:05 (B22) 15:46
31	05:14	06:15		07:20	09:32 (B22)	08:51
	21:30	20:17		16:38	09:55 (B22)	15:47 4 10:02 (B22) 10:06 (B22)
Potential sun hours	529	469	385	324	247	216
Total, worst case				54	1132	234
Sun reduction				0.26	0.08	0.07
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.61	0.61	0.61
Total reduction				0.15	0.05	0.04
Total, real				8	54	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)

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10/04/2024 05:50/4.0.531

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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) []

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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	09:33 (B22) 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	07:17 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	09:34 (B22) 17:50	07:08 19:55	06:46 20:58	05:30 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	09:36 (B22) 17:52	07:06 19:57	06:43 21:00	05:28 21:55	04:34 22:08	05:19 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	09:38 (B22) 17:54	07:03 19:59	06:41 21:02	05:26 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	09:40 (B22) 17:56	07:01 19:51	06:38 20:51	05:23 21:04	04:32 21:58	05:23 22:07	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	09:41 (B22) 17:58	07:05 19:58	06:35 21:06	05:21 21:59	04:31 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	09:42 (B22) 17:59	07:06 19:59	06:36 21:07	05:19 21:59	04:36 22:07	05:27 21:25	06:29 20:03	07:30 18:41	07:36 16:26	08:34 15:42
8	08:48 15:58	08:01 17:01	09:43 (B22) 17:59	07:07 19:59	06:37 21:08	05:17 21:59	04:37 22:08	05:29 21:26	06:31 20:04	07:32 18:42	07:38 16:27	08:35 15:43
9	08:47 15:59	07:58 17:03	09:44 (B22) 17:59	07:08 19:59	06:38 21:09	05:15 21:59	04:38 22:09	05:31 21:27	06:33 20:05	07:34 18:43	07:40 16:28	08:37 15:44
10	08:46 16:01	07:56 17:05	09:45 (B22) 17:59	07:09 19:59	06:39 21:10	05:13 21:59	04:39 22:09	05:33 21:28	06:35 20:06	07:36 18:43	07:42 16:29	08:38 15:45
11	08:45 16:03	07:54 17:08	09:46 (B22) 17:59	07:10 19:59	06:40 21:11	05:11 21:59	04:41 22:09	05:35 21:29	06:37 20:07	07:38 18:44	07:44 16:30	08:39 15:46
12	08:44 16:04	07:52 17:10	09:47 (B22) 17:59	07:11 19:59	06:41 21:12	05:08 21:59	04:42 22:09	05:37 21:30	06:39 20:08	07:40 18:45	07:46 16:31	08:40 15:47
13	08:43 16:06	07:50 17:12	09:48 (B22) 17:59	07:12 19:59	06:42 21:13	05:06 21:59	04:43 22:09	05:39 21:31	06:41 20:10	07:42 18:46	07:49 16:32	08:42 15:48
14	08:42 16:08	07:47 17:14	09:49 (B22) 17:59	07:13 19:59	06:43 21:14	05:04 21:59	04:44 22:09	05:41 21:32	06:43 20:11	07:44 18:47	07:51 16:33	08:43 15:49
15	08:41 16:10	07:45 17:17	09:50 (B22) 17:59	07:14 19:59	06:44 21:15	05:03 21:59	04:46 22:09	05:43 21:33	06:45 20:12	07:46 18:48	07:53 16:34	08:44 15:50
16	08:40 16:12	07:43 17:19	09:51 (B22) 17:59	07:15 19:59	06:45 21:16	05:01 21:59	04:48 22:09	05:45 21:34	06:47 20:13	07:48 18:49	07:55 16:35	08:45 15:51
17	08:39 16:14	07:40 17:21	09:52 (B22) 17:59	07:16 19:59	06:46 21:17	05:00 21:59	04:49 22:09	05:47 21:35	06:49 20:14	07:50 18:50	07:57 16:36	08:46 15:52
18	08:38 16:16	07:38 17:23	09:53 (B22) 17:59	07:17 19:59	06:47 21:18	04:57 21:59	04:51 22:09	05:49 21:36	06:51 20:15	07:52 18:51	07:59 16:37	08:47 15:53
19	08:36 16:18	07:36 17:26	09:54 (B22) 17:59	07:18 19:59	06:48 21:19	04:55 21:59	04:52 22:09	05:51 21:37	06:53 20:16	07:55 18:52	08:01 16:38	08:48 15:54
20	08:35 16:20	07:33 17:28	09:55 (B22) 17:59	07:19 19:59	06:49 21:20	04:53 21:59	04:54 22:09	05:53 21:38	06:55 20:17	07:57 18:53	08:03 16:39	08:49 15:55
21	08:33 16:22	07:31 17:30	09:56 (B22) 17:59	07:20 19:59	06:50 21:21	04:52 21:59	04:56 22:09	05:55 21:40	06:57 20:18	07:59 18:54	08:05 16:40	08:49 15:56
22	08:32 16:24	07:28 17:32	09:57 (B22) 17:59	07:21 19:59	06:51 21:22	04:50 21:59	04:57 22:09	05:57 21:41	06:59 20:19	08:01 18:56	08:07 16:41	08:49 15:57
23	08:30 16:26	07:26 17:34	09:58 (B22) 17:59	07:22 19:59	06:52 21:23	04:48 21:59	04:59 22:09	05:59 21:42	07:01 20:20	08:03 18:58	08:09 16:42	08:50 15:58
24	08:29 16:28	07:23 17:37	09:59 (B22) 17:59	07:23 19:59	06:53 21:24	04:47 21:59	05:01 22:09	06:01 21:43	07:03 20:21	08:05 18:59	08:11 16:43	08:50 15:59
25	08:27 16:30	07:21 17:39	09:59 (B22) 17:59	07:24 19:59	06:54 21:25	04:45 21:59	05:03 22:09	06:03 21:44	07:05 20:22	08:07 18:59	08:13 16:44	08:50 15:59
26	08:26 16:32	07:18 17:41	09:59 (B22) 17:59	07:25 19:59	06:55 21:26	04:44 21:59	05:04 22:09	06:05 21:45	07:07 20:23	08:09 18:59	08:15 16:45	08:51 15:59
27	08:24 16:34	07:16 17:43	09:59 (B22) 17:59	07:26 19:59	06:56 21:27	04:43 21:59	05:06 22:09	06:07 21:46	07:09 20:24	08:11 18:59	08:17 16:46	08:51 15:59
28	08:22 16:36	07:13 17:45	09:59 (B22) 17:59	07:27 19:59	06:57 21:28	04:41 21:59	05:08 22:09	06:09 21:47	07:11 20:25	08:13 18:59	08:19 16:47	08:51 15:59
29	08:20 16:39	07:11 17:48	09:59 (B22) 17:59	07:28 19:59	06:58 21:29	04:40 21:59	05:10 22:09	06:11 21:48	07:13 20:26	08:15 18:59	08:21 16:48	08:51 15:59
30	08:19 16:41	07:09 17:52	09:59 (B22) 17:59	07:29 19:59	06:59 21:30	04:38 21:59	05:12 22:09	06:13 21:49	07:15 20:27	08:17 18:59	08:22 16:49	08:51 15:59
31	08:17 16:43	07:08 17:53	09:59 (B22) 17:59	07:30 19:59	07:00 21:31	04:37 21:59	05:14 22:09	06:15 21:50	07:16 20:28	08:18 18:59	08:23 16:50	08:51 15:59
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	627	92								634		89
Sun reduction	0.13	0.20								0.08		0.07
Oper. time red.	0.94	0.94								0.94		0.94
Wind dir. red.	0.60	0.60								0.60		0.60
Total reduction	0.08	0.11								0.05		0.04
Total, real	47	11								30		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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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		10:50 (B17)	08:15	07:11	06:49	05:32	04:35	04:30	05:15	06:17	07:17	07:23	08:24	10:37 (B17)
	15:48	43	11:33 (B17)	16:45	17:47	19:53	20:55	21:53	22:09	21:28	20:14	18:53	16:36	15:45	43 11:20 (B17)
2	08:51		10:51 (B17)	08:13	07:08	06:46	05:30	04:34	04:30	05:17	06:19	07:19	07:25	08:26	10:37 (B17)
	15:49	43	11:34 (B17)	16:47	17:50	19:55	20:57	21:54	22:09	21:26	20:11	18:51	16:34	15:44	44 11:21 (B17)
3	08:50		10:51 (B17)	08:11	07:06	06:43	05:28	04:33	04:31	05:19	06:21	07:21	07:27	08:28	10:38 (B17)
	15:50	43	11:34 (B17)	16:49	17:52	19:57	21:00	21:55	22:08	21:24	20:09	18:48	16:31	15:43	43 11:21 (B17)
4	08:50		10:51 (B17)	08:09	07:03	06:41	05:25	04:32	04:32	05:21	06:23	07:23	07:29	08:29	10:37 (B17)
	15:52	44	11:35 (B17)	16:52	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:45	16:29	15:42	44 11:21 (B17)
5	08:49		10:52 (B17)	08:07	07:00	06:38	05:23	04:31	04:33	05:23	06:25	07:25	07:31	08:31	10:38 (B17)
	15:53	44	11:36 (B17)	16:54	17:56	20:01	21:04	21:58	22:07	21:19	20:03	18:43	16:27	15:41	43 11:21 (B17)
6	08:49		10:52 (B17)	08:05	06:58	06:35	05:21	04:30	04:34	05:25	06:27	07:27	07:33	08:32	10:39 (B17)
	15:54	44	11:36 (B17)	16:56	17:58	20:03	21:06	21:59	22:06	21:17	20:01	18:40	16:25	15:41	43 11:22 (B17)
7	08:48		10:53 (B17)	08:03	06:55	06:33	05:19	04:30	04:35	05:27	06:29	07:29	07:36	08:34	10:38 (B17)
	15:56	43	11:36 (B17)	16:58	18:00	20:05	21:08	22:00	22:05	21:15	19:58	18:38	16:23	15:40	44 11:22 (B17)
8	08:48		10:53 (B17)	08:00	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:31	07:38	08:35	10:39 (B17)
	15:58	44	11:37 (B17)	17:01	18:02	20:07	21:10	22:01	22:04	21:13	19:55	18:35	16:21	15:39	44 11:23 (B17)
9	08:47		10:53 (B17)	07:58	06:50	06:27	05:14	04:28	04:38	05:31	06:33	07:34	07:40	08:37	10:40 (B17)
	15:59	44	11:37 (B17)	17:03	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:32	16:19	15:39	43 11:23 (B17)
10	08:46		10:54 (B17)	07:56	06:47	06:25	05:12	04:28	04:39	05:33	06:35	07:36	07:42	08:38	10:40 (B17)
	16:01	44	11:38 (B17)	17:05	18:07	20:12	21:14	22:03	22:02	21:08	19:50	18:30	16:17	15:38	43 11:23 (B17)
11	08:45		10:55 (B17)	07:54	06:45	06:22	05:10	04:27	04:40	05:35	06:37	07:38	07:44	8 10:49 (B17)	08:39 10:40 (B17)
	16:02	43	11:38 (B17)	17:07	18:09	20:14	21:16	22:04	22:01	21:06	19:47	18:27	16:15	15:38	43 11:23 (B17)
12	08:44		10:55 (B17)	07:52	06:42	06:19	05:08	04:26	04:42	05:37	06:39	07:40	07:46	8 10:45 (B17)	08:40 10:41 (B17)
	16:04	44	11:39 (B17)	17:10	18:11	20:16	21:18	22:05	22:00	21:04	19:45	18:24	16:13	16 11:01 (B17)	15:38 44 11:25 (B17)
13	08:43		10:55 (B17)	07:49	06:39	06:17	05:06	04:26	04:43	05:39	06:41	07:42	07:49	10:43 (B17)	08:42 10:42 (B17)
	16:06	43	11:38 (B17)	17:12	18:13	20:18	21:20	22:06	21:59	21:01	19:42	18:22	16:11	21 11:04 (B17)	15:38 43 11:25 (B17)
14	08:42		10:56 (B17)	07:47	06:37	06:14	05:04	04:26	04:44	05:41	06:43	07:44	07:51	10:41 (B17)	08:43 10:42 (B17)
	16:08	43	11:39 (B17)	17:14	18:15	20:20	21:22	22:07	21:58	20:59	19:39	18:19	16:09	25 11:06 (B17)	15:38 43 11:25 (B17)
15	08:41		10:57 (B17)	07:45	06:34	06:12	05:02	04:25	04:46	05:43	06:45	07:46	07:53	10:39 (B17)	08:44 10:42 (B17)
	16:10	42	11:39 (B17)	17:16	18:17	20:22	21:24	22:07	21:57	20:57	19:37	18:17	16:07	28 11:07 (B17)	15:37 43 11:25 (B17)
16	08:40		10:57 (B17)	07:43	06:31	06:09	05:00	04:25	04:47	05:45	06:47	07:48	07:55	10:39 (B17)	08:45 10:43 (B17)
	16:12	42	11:39 (B17)	17:19	18:19	20:24	21:25	22:08	21:55	20:54	19:34	18:14	16:06	30 11:09 (B17)	15:37 43 11:26 (B17)
17	08:39		10:58 (B17)	07:40	06:29	06:07	04:58	04:25	04:49	05:47	06:49	07:50	07:57	10:38 (B17)	08:46 10:44 (B17)
	16:13	41	11:39 (B17)	17:21	18:22	20:26	21:27	22:09	21:54	20:52	19:31	18:12	16:04	32 11:10 (B17)	15:38 42 11:26 (B17)
18	08:37		10:58 (B17)	07:38	06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:52	07:59	10:38 (B17)	08:46 10:44 (B17)
	16:15	41	11:39 (B17)	17:23	18:24	20:28	21:29	22:09	21:52	20:49	19:28	18:09	16:02	34 11:12 (B17)	15:38 43 11:27 (B17)
19	08:36		10:59 (B17)	07:35	06:23	06:01	04:55	04:25	04:52	05:51	06:53	07:54	08:01	10:37 (B17)	08:47 10:45 (B17)
	16:17	40	11:39 (B17)	17:25	18:26	20:30	21:31	22:09	21:51	20:47	19:26	18:07	16:00	36 11:13 (B17)	15:38 42 11:27 (B17)
20	08:35		11:00 (B17)	07:33	06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:03	10:36 (B17)	08:48 10:45 (B17)
	16:19	39	11:39 (B17)	17:28	18:28	20:32	21:33	22:10	21:49	20:45	19:23	18:04	15:59	37 11:13 (B17)	15:38 42 11:27 (B17)
21	08:33		11:00 (B17)	07:31	06:18	05:56	04:51	04:25	04:55	05:55	06:57	07:59	08:05	10:35 (B17)	08:49 10:46 (B17)
	16:21	39	11:39 (B17)	17:30	18:30	20:35	21:35	22:10	21:48	20:42	19:20	18:02	15:57	39 11:14 (B17)	15:39 42 11:28 (B17)
22	08:32		11:01 (B17)	07:28	06:15	05:54	04:50	04:25	04:57	05:57	06:59	08:01	08:07	10:36 (B17)	08:49 10:46 (B17)
	16:23	37	11:38 (B17)	17:32	18:32	20:37	21:37	22:10	21:46	20:40	19:18	17:59	15:56	39 11:15 (B17)	15:39 42 11:28 (B17)
23	08:30		11:02 (B17)	07:26	06:13	05:51	04:48	04:25	04:59	05:59	07:01	08:03	08:09	10:36 (B17)	08:50 10:47 (B17)
	16:26	36	11:38 (B17)	17:34	18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:54	40 11:16 (B17)	15:40 42 11:29 (B17)
24	08:29		11:04 (B17)	07:23	06:10	05:49	04:46	04:26	05:01	06:01	07:03	08:05	08:11	10:35 (B17)	08:50 10:47 (B17)
	16:28	34	11:38 (B17)	17:36	18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:54	15:53	41 11:16 (B17)	15:40 42 11:29 (B17)
25	08:27		11:05 (B17)	07:21	06:07	05:47	04:45	04:26	05:02	06:03	07:05	08:07	08:13	10:35 (B17)	08:50 10:47 (B17)
	16:30	32	11:37 (B17)	17:39	18:38	20:43	21:42	22:10	21:41	20:32	19:10	16:52	15:52	42 11:17 (B17)	15:41 43 11:30 (B17)
26	08:26		11:06 (B17)	07:18	06:05	05:44	04:43	04:26	05:04	06:05	07:07	08:09	08:15	10:36 (B17)	08:51 10:47 (B17)
	16:32	30	11:36 (B17)	17:41	18:40	20:45	21:43	22:10	21:39	20:29	19:07	16:50	15:50	42 11:18 (B17)	15:42 43 11:30 (B17)
27	08:24		11:07 (B17)	07:16	06:02	05:42	04:42	04:27	05:06	06:07	07:09	08:12	08:17	10:36 (B17)	08:51 10:48 (B17)
	16:34	28	11:35 (B17)	17:43	18:42	20:47	21:45	22:10	21:38	20:27	19:04	16:47	15:49	42 11:18 (B17)	15:42 42 11:30 (B17)
28	08:22		11:09 (B17)	07:13	05:59	05:39	04:41	04:28	05:08	06:09	07:11	08:14	08:19	10:36 (B17)	08:51 10:48 (B17)
	16:36	25	11:34 (B17)	17:45	18:45	20:49	21:47	22:10	21:36	20:24	19:01	16:45	15:48	43 11:19 (B17)	15:43 43 11:31 (B17)
29	08:20		11:11 (B17)		06:57	05:37	04:39	04:28	05:10	06:11	07:13	08:16	08:21	10:36 (B17)	08:51 10:49 (B17)
	16:38	21	11:32 (B17)		19:47	20:51	21:48	22:10	21:34	20:22	18:59	16:43	15:47	43 11:19 (B17)	15:44 43 11:32 (B17)
30	08:18		11:14 (B17)		06:54	05:35	04:38	04:29	05:12	06:13	07:15	08:18	08:22	10:36 (B17)	08:51 10:49 (B17)
	16:41	16	11:30 (B17)		19:49	20:53	21:50	22:09	21:32	20:19	18:56	16:40	15:46	44 11:20 (B17)	15:45 43 11:32 (B17)
31	08:17		11:19 (B17)		06:51		04:37		05:13	06:15		07:20		08:51	10:50 (B17)
	16:43	6	11:25 (B17)		19:51		21:51		21:30	20:17		16:38		15:46	43 11:33 (B17)
Potential sun hours	235			266	366	426	508	529	529	469	385	324	247	216	
Total, worst case		1158											682		1330
Sun reduction		0.13											0.08		0.07
Oper. time red.		0.94											0.94		0.94
Wind dir. red.		0.60											0.60		0.60
Total reduction		0.08											0.05		0.04
Total, real		87											32		53

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 18:54	07:17 16:36	07:23 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	06:50 (B14) 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	07:01 (B14) 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	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	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	08:45 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	07:52 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	06:53 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 18:05	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 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 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	08:09 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	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:12	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 17:14	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 17:16	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 17:18	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	07:15 19:05		08:20 16:38	08:51 15:47	
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case				406				383	28			
Sun reduction				0.50				0.50	0.43			
Oper. time red.				0.94				0.94	0.94			
Wind dir. red.				0.66				0.66	0.66			
Total reduction				0.31				0.31	0.26			
Total, real				126				118	7			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April	May	June
1	08:51		09:47 (B14)	08:15		07:11				06:49	05:33	04:36
	15:48	28	10:15 (B14)	16:45		17:48				19:53	20:55	21:53
2	08:50		09:48 (B14)	08:13		07:08				06:46	05:30	04:35
	15:49	28	10:16 (B14)	16:48		17:50				19:55	20:58	21:54
3	08:50		09:48 (B14)	08:11		07:06				06:43	05:28	04:34
	15:51	28	10:16 (B14)	16:50		17:52				19:57	21:00	21:55
4	08:50		09:48 (B14)	08:09		07:03				06:41	05:26	04:33
	15:52	28	10:16 (B14)	16:52		17:54				19:59	21:02	21:57
5	08:49		09:48 (B14)	08:07		07:01				06:38	05:23	04:32
	15:53	30	10:18 (B14)	16:54		17:56				20:01	21:04	21:58
6	08:49		09:49 (B14)	08:05		06:58				06:36	05:21	04:31
	15:55	29	10:18 (B14)	16:56		17:58				20:03	21:06	21:59
7	08:48		09:49 (B14)	08:03		06:55				06:33	05:19	04:30
	15:56	29	10:18 (B14)	16:59		18:01				20:06	21:08	22:00
8	08:48		09:49 (B14)	08:01		06:53				06:30	05:17	04:29
	15:58	30	10:19 (B14)	17:01		18:03				20:08	21:10	22:01
9	08:47		09:49 (B14)	07:58		06:50				06:28	05:15	04:29
	16:00	31	10:20 (B14)	17:03		18:05				20:10	21:12	22:02
10	08:46		09:50 (B14)	07:56		06:47				06:25	05:13	04:28
	16:01	30	10:20 (B14)	17:05		18:07				20:12	21:14	22:03
11	08:45		09:50 (B14)	07:54		06:45				06:22	05:11	04:27
	16:03	31	10:21 (B14)	17:08		18:09				20:14	21:16	22:04
12	08:44		09:51 (B14)	07:52		06:42			07:13 (B22)	06:20	05:09	04:27
	16:05	31	10:22 (B14)	17:10		18:11		5	07:18 (B22)	20:16	21:18	22:05
13	08:43		09:50 (B14)	07:50		06:40			07:08 (B22)	06:17	05:07	04:26
	16:06	31	10:21 (B14)	17:12		18:13		14	07:22 (B22)	20:18	21:20	22:06
14	08:42		09:51 (B14)	07:47		06:37			07:05 (B22)	06:15	05:05	04:26
	16:08	31	10:22 (B14)	17:14		18:15		19	07:24 (B22)	20:20	21:22	22:07
15	08:41		09:52 (B14)	07:45		06:34			07:04 (B22)	06:12	05:03	04:26
	16:10	31	10:23 (B14)	17:17		18:18		22	07:26 (B22)	20:22	21:24	22:07
16	08:40		09:51 (B14)	07:43		06:32			07:02 (B22)	06:09	05:01	04:26
	16:12	31	10:22 (B14)	17:19		18:20		25	07:27 (B22)	20:24	21:26	22:08
17	08:39		09:52 (B14)	07:40		06:29			07:01 (B22)	06:07	04:59	04:25
	16:14	31	10:23 (B14)	17:21		18:22		26	07:27 (B22)	20:26	21:27	22:08
18	08:38		09:53 (B14)	07:38		06:26			07:00 (B22)	06:04	04:57	04:25
	16:16	30	10:23 (B14)	17:23		18:24		27	07:27 (B22)	20:28	21:29	22:09
19	08:36		09:53 (B14)	07:36		06:24			06:59 (B22)	06:02	04:55	04:25
	16:18	30	10:23 (B14)	17:26		18:26		29	07:28 (B22)	20:31	21:31	22:09
20	08:35		09:54 (B14)	07:33		06:21			06:59 (B22)	05:59	04:53	04:25
	16:20	29	10:23 (B14)	17:28		18:28		29	07:28 (B22)	20:33	21:33	22:10
21	08:33		09:54 (B14)	07:31		06:18			06:58 (B22)	05:57	04:52	04:25
	16:22	29	10:23 (B14)	17:30		18:30		29	07:27 (B22)	20:35	21:35	22:10
22	08:32		09:55 (B14)	07:28		06:16			06:58 (B22)	05:54	04:50	04:26
	16:24	28	10:23 (B14)	17:32		18:32		29	07:27 (B22)	20:37	21:37	22:10
23	08:30		09:55 (B14)	07:26		06:13			06:58 (B22)	05:52	04:48	04:26
	16:26	27	10:22 (B14)	17:34		18:34		29	07:27 (B22)	20:39	21:38	22:10
24	08:29		09:57 (B14)	07:23		06:10			06:58 (B22)	05:49	04:47	04:26
	16:28	25	10:22 (B14)	17:37		18:36		27	07:25 (B22)	20:41	21:40	22:10
25	08:27		09:58 (B14)	07:21		06:08			06:59 (B22)	05:47	04:45	04:26
	16:30	24	10:22 (B14)	17:39		18:38		26	07:25 (B22)	20:43	21:42	22:10
26	08:26		09:59 (B14)	07:18		06:05			06:59 (B22)	05:44	04:44	04:27
	16:32	22	10:21 (B14)	17:41		18:41		25	07:24 (B22)	20:45	21:43	22:10
27	08:24		10:01 (B14)	07:16		06:02			06:59 (B22)	05:42	04:42	04:27
	16:34	19	10:20 (B14)	17:43		18:43		23	07:22 (B22)	20:47	21:45	22:10
28	08:22		10:03 (B14)	07:13		05:59			07:01 (B22)	05:40	04:41	04:28
	16:37	15	10:18 (B14)	17:45		18:45		20	07:21 (B22)	20:49	21:47	22:10
29	08:20		10:05 (B14)			06:57			08:03 (B22)	05:37	04:40	04:29
	16:39	11	10:16 (B14)			19:47		15	08:18 (B22)	20:51	21:48	22:10
30	08:19					06:54			08:05 (B22)	05:35	04:38	04:29
	16:41					19:49		9	08:14 (B22)	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		797				428						
Sun reduction		0.13				0.41						
Oper. time red.		0.94				0.94						
Wind dir. red.		0.61				0.63						
Total reduction		0.08				0.24						
Total, real		60				104						

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December			
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:50 (B22) 08:00 (B22)	07:23 16:36	08:24 15:45	09:32 (B14) 10:03 (B14)	
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	09:33 (B14) 10:03 (B14)	
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	09:32 (B14) 10:03 (B14)	
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	09:33 (B14) 10:03 (B14)	
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	09:34 (B14) 10:04 (B14)	
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	09:35 (B14) 10:04 (B14)	
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38		07:36 16:23	08:34 15:40	09:35 (B14) 10:04 (B14)	
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35		07:38 16:21	08:35 15:40	09:36 (B14) 10:04 (B14)	
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	09:36 (B14) 10:04 (B14)	
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30		07:42 16:17	08:38 15:39	09:37 (B14) 10:05 (B14)	
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27		07:44 16:15	08:39 15:39	09:37 (B14) 10:05 (B14)	
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25		07:46 16:13	08:40 15:38	09:38 (B14) 10:06 (B14)	
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22		07:49 16:11	09:37 (B14) 09:48 (B14)	08:42 15:38	09:39 (B14) 10:06 (B14)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20		07:51 16:09	09:35 (B14) 09:50 (B14)	08:43 15:38	09:39 (B14) 10:06 (B14)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17		07:53 16:08	09:33 (B14) 09:52 (B14)	08:44 15:38	09:40 (B14) 10:06 (B14)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:49 18:14		07:55 16:06	09:32 (B14) 09:54 (B14)	08:45 15:38	09:40 (B14) 10:06 (B14)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:48 18:12		07:57 16:04	09:31 (B14) 09:55 (B14)	08:46 15:38	09:41 (B14) 10:07 (B14)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09		07:59 16:02	09:31 (B14) 09:56 (B14)	08:46 15:38	09:42 (B14) 10:07 (B14)
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07		08:01 16:01	09:30 (B14) 09:57 (B14)	08:47 15:38	09:42 (B14) 10:07 (B14)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04		08:03 15:59	09:30 (B14) 09:58 (B14)	08:48 15:39	09:42 (B14) 10:08 (B14)
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02		08:05 15:58	09:29 (B14) 09:58 (B14)	08:49 15:39	09:43 (B14) 10:09 (B14)
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00		08:07 15:56	09:30 (B14) 09:59 (B14)	08:49 15:39	09:43 (B14) 10:09 (B14)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57		08:09 15:55	09:30 (B14) 10:00 (B14)	08:50 15:40	09:44 (B14) 10:10 (B14)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55		08:11 15:53	09:30 (B14) 10:00 (B14)	08:50 15:41	09:45 (B14) 10:10 (B14)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52		08:13 15:52	09:30 (B14) 10:00 (B14)	08:50 15:41	09:45 (B14) 10:10 (B14)
26	05:05 21:39	06:05 20:30	07:07 19:07	08:11 16:50		08:15 15:51	09:31 (B14) 10:02 (B14)	08:51 15:42	09:45 (B14) 10:11 (B14)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:48		08:17 15:49	09:31 (B14) 10:02 (B14)	08:51 15:43	09:45 (B14) 10:11 (B14)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45		08:19 15:48	09:31 (B14) 10:02 (B14)	08:51 15:44	09:46 (B14) 10:12 (B14)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43		08:21 15:47	09:31 (B14) 10:02 (B14)	08:51 15:45	09:46 (B14) 10:13 (B14)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41		08:22 15:46	09:32 (B14) 10:03 (B14)	08:51 15:46	09:47 (B14) 10:13 (B14)
31	05:14 21:30	06:15 20:17		07:20 16:38				08:51 15:47	09:47 (B14) 10:14 (B14)
Potential sun hours	529	469	385	324		247		216	
Total, worst case			424	10		474		844	
Sun reduction			0.43	0.26		0.08		0.07	
Oper. time red.			0.94	0.94		0.94		0.94	
Wind dir. red.			0.63	0.63		0.61		0.61	
Total reduction			0.25	0.15		0.05		0.04	
Total, real			107	2		22		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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March	April			May	June		
1	08:51		10:28 (B22)	08:15		07:11	06:49				05:32	06:18 (B1)	04:36	
	15:48	35	11:03 (B22)	16:45		17:48	19:53				20:55	06:39 (B1)	21:53	
2	08:50		10:29 (B22)	08:13		07:08	06:46				05:30	06:19 (B1)	04:35	
	15:49	35	11:04 (B22)	16:47		17:50	19:55				20:57	06:38 (B1)	21:54	
3	08:50		10:29 (B22)	08:11		07:06	06:43				05:28	06:19 (B1)	04:34	
	15:51	35	11:04 (B22)	16:50		17:52	19:57				21:00	06:37 (B1)	21:55	
4	08:50		10:29 (B22)	08:09		07:03	06:41				05:26	06:21 (B1)	04:33	
	15:52	35	11:04 (B22)	16:52		17:54	19:59				21:02	06:36 (B1)	21:57	
5	08:49		10:30 (B22)	08:07		07:00	06:38				05:23	06:22 (B1)	04:32	
	15:53	36	11:06 (B22)	16:54		17:56	20:01				21:04	06:34 (B1)	21:58	
6	08:49		10:30 (B22)	08:05		06:58	06:35				05:21	06:25 (B1)	04:31	
	15:55	36	11:06 (B22)	16:56		17:58	20:03				21:06	06:31 (B1)	21:59	
7	08:48		10:31 (B22)	08:03		06:55	06:33				05:19		04:30	
	15:56	35	11:06 (B22)	16:59		18:00	20:05				21:08		22:00	
8	08:48		10:31 (B22)	08:01		06:53	06:30				05:17		04:29	
	15:58	35	11:06 (B22)	17:01		18:03	20:08				21:10		22:01	
9	08:47		10:32 (B22)	07:58		06:50	06:28				05:15		04:28	
	15:59	34	11:06 (B22)	17:03		18:05	20:10				21:12		22:02	
10	08:46		10:32 (B22)	07:56		06:47	06:25				05:13		04:28	
	16:01	35	11:07 (B22)	17:05		18:07	20:12				21:14		22:03	
11	08:45		10:33 (B22)	07:54		06:45	06:22				05:10		04:27	
	16:03	34	11:07 (B22)	17:08		18:09	20:14				21:16		22:04	
12	08:44		10:34 (B22)	07:52		06:42	06:20				05:08		04:27	
	16:04	33	11:07 (B22)	17:10		18:11	20:16				21:18		22:05	
13	08:43		10:34 (B22)	07:50		06:40	06:17				05:06		04:26	
	16:06	33	11:07 (B22)	17:12		18:13	20:18				21:20		22:06	
14	08:42		10:35 (B22)	07:47		06:37	06:14				05:04		04:26	
	16:08	32	11:07 (B22)	17:14		18:15	20:20				21:22		22:07	
15	08:41		10:36 (B22)	07:45		06:34	06:12				05:02		04:26	
	16:10	32	11:08 (B22)	17:17		18:18	20:22				21:24		22:07	
16	08:40		10:36 (B22)	07:43		06:32	06:09				05:01		04:25	
	16:12	31	11:07 (B22)	17:19		18:20	20:24				21:25		22:08	
17	08:39		10:38 (B22)	07:40		06:29	06:07				04:59		04:25	
	16:14	29	11:07 (B22)	17:21		18:22	20:26				21:27		22:08	
18	08:37		10:38 (B22)	07:38		06:26	06:04				04:57		04:25	
	16:16	29	11:07 (B22)	17:23		18:24	20:28				21:29		22:09	
19	08:36		10:39 (B22)	07:36		06:24	06:02			06:28 (B1)	04:55		04:25	
	16:18	27	11:06 (B22)	17:25		18:26	20:30		7	06:35 (B1)	21:31		22:09	
20	08:35		10:41 (B22)	07:33		06:21	05:59			06:25 (B1)	04:53		04:25	
	16:20	25	11:06 (B22)	17:28		18:28	20:33		12	06:37 (B1)	21:33		22:10	
21	08:33		10:42 (B22)	07:31		06:18	05:57			06:23 (B1)	04:52		04:25	
	16:22	23	11:05 (B22)	17:30		18:30	20:35		16	06:39 (B1)	21:35		22:10	
22	08:32		10:43 (B22)	07:28		06:16	05:54			06:21 (B1)	04:50		04:25	
	16:24	20	11:03 (B22)	17:32		18:32	20:37		19	06:40 (B1)	21:37		22:10	
23	08:30		10:45 (B22)	07:26		06:13	05:52			06:19 (B1)	04:48		04:26	
	16:26	17	11:02 (B22)	17:34		18:34	20:39		21	06:40 (B1)	21:38		22:10	
24	08:29		10:48 (B22)	07:23		06:10	05:49			06:19 (B1)	04:47		04:26	
	16:28	13	11:01 (B22)	17:37		18:36	20:41		22	06:41 (B1)	21:40		22:10	
25	08:27		10:54 (B22)	07:21		06:07	05:47			06:18 (B1)	04:45		04:26	
	16:30	1	10:55 (B22)	17:39		18:38	20:43		23	06:41 (B1)	21:42		22:10	
26	08:26			07:18		06:05	05:44			06:17 (B1)	04:44		04:27	
	16:32			17:41		18:41	20:45		23	06:40 (B1)	21:43		22:10	
27	08:24			07:16		06:02	05:42			06:17 (B1)	04:42		04:27	
	16:34			17:43		18:43	20:47		24	06:41 (B1)	21:45		22:10	
28	08:22			07:13		05:59	05:40			06:17 (B1)	04:41		04:28	
	16:36			17:45		18:45	20:49		24	06:41 (B1)	21:47		22:10	
29	08:20					06:57	05:37			06:18 (B1)	04:39		04:28	
	16:39					19:47	20:51		22	06:40 (B1)	21:48		22:10	
30	08:18					06:54	05:35			06:17 (B1)	04:38		04:29	
	16:41					19:49	20:53		22	06:39 (B1)	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		730						235			91			
Sun reduction		0.13						0.50			0.57			
Oper. time red.		0.94						0.94			0.94			
Wind dir. red.		0.61						0.65			0.65			
Total reduction		0.07						0.30			0.34			
Total, real		54						70			31			

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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Turalinas - 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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 34 10:49 (B22)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44 34 10:50 (B22)
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 35 10:50 (B22)
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 35 10:50 (B22)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42 35 10:51 (B22)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41 35 10:52 (B22)
7	04:36 22:05	05:27 21:15	06:33 (B1) 06:41 (B1)	06:29 19:58	07:30 18:38	07:36 16:23 36 10:52 (B22)
8	04:37 22:04	05:29 21:13	06:31 (B1) 06:44 (B1)	06:31 19:55	07:32 18:35	07:38 16:21 36 10:53 (B22)
9	04:38 22:03	05:31 21:11	06:30 (B1) 06:45 (B1)	06:33 19:53	07:34 18:32	07:40 16:19 35 10:52 (B22)
10	04:39 22:02	05:33 21:08	06:29 (B1) 06:47 (B1)	06:35 19:50	07:36 18:30	07:42 16:17 35 10:53 (B22)
11	04:41 22:01	05:35 21:06	06:27 (B1) 06:47 (B1)	06:37 19:47	07:38 18:27	07:44 16:15 36 10:54 (B22)
12	04:42 22:00	05:37 21:04	06:26 (B1) 06:47 (B1)	06:39 19:45	07:40 18:25	07:46 16:13 36 10:55 (B22)
13	04:43 21:59	05:39 21:02	06:26 (B1) 06:48 (B1)	06:41 19:42	07:42 18:22	07:49 16:11 36 10:55 (B22)
14	04:45 21:58	05:41 20:59	06:25 (B1) 06:48 (B1)	06:43 19:39	07:44 18:19	07:51 16:09 35 10:55 (B22)
15	04:46 21:57	05:43 20:57	06:25 (B1) 06:48 (B1)	06:45 19:37	07:46 18:17	07:53 16:08 36 10:56 (B22)
16	04:48 21:55	05:45 20:54	06:25 (B1) 06:48 (B1)	06:47 19:34	07:48 18:14	07:55 16:06 36 10:56 (B22)
17	04:49 21:54	05:47 20:52	06:25 (B1) 06:48 (B1)	06:49 19:31	07:50 18:12	07:57 16:04 3 10:26 (B22) 10:29 (B22) 15:38 35 10:56 (B22)
18	04:51 21:52	05:49 20:50	06:24 (B1) 06:47 (B1)	06:51 19:29	07:52 18:09	07:59 16:02 13 10:35 (B22) 15:38 35 10:57 (B22)
19	04:52 21:51	05:51 20:47	06:24 (B1) 06:46 (B1)	06:53 19:26	07:55 18:07	08:01 16:01 17 10:37 (B22) 15:38 36 10:58 (B22)
20	04:54 21:49	05:53 20:45	06:25 (B1) 06:45 (B1)	06:55 19:23	07:57 18:04	08:03 15:59 20 10:38 (B22) 15:39 36 10:58 (B22)
21	04:56 21:48	05:55 20:42	06:26 (B1) 06:44 (B1)	06:57 19:20	07:59 18:02	08:05 15:58 23 10:40 (B22) 15:39 36 10:59 (B22)
22	04:57 21:46	05:57 20:40	06:28 (B1) 06:43 (B1)	06:59 19:18	08:01 17:59	08:07 15:56 25 10:42 (B22) 15:39 35 10:58 (B22)
23	04:59 21:45	05:59 20:37	06:30 (B1) 06:41 (B1)	07:01 19:15	08:03 17:57	08:09 15:55 27 10:43 (B22) 15:40 36 11:00 (B22)
24	05:01 21:43	06:01 20:35	06:32 (B1) 06:38 (B1)	07:03 19:12	08:05 17:55	08:11 15:53 29 10:44 (B22) 15:41 36 11:00 (B22)
25	05:03 21:41	06:03 20:32		07:05 19:10	08:13 16:52	10:15 (B22) 08:50 15:41 36 11:00 (B22)
26	05:04 21:39	06:05 20:30		07:07 19:07	08:15 16:50	10:16 (B22) 08:51 15:42 35 11:00 (B22)
27	05:06 21:38	06:07 20:27		07:09 19:04	08:17 16:47	10:15 (B22) 08:51 15:43 36 11:01 (B22)
28	05:08 21:36	06:09 20:24		07:11 19:02	08:19 16:45	10:15 (B22) 08:51 15:44 35 11:01 (B22)
29	05:10 21:34	06:11 20:22		07:13 18:59	08:21 16:43	10:15 (B22) 08:51 15:45 36 11:02 (B22)
30	05:12 21:32	06:13 20:19		07:15 18:56	08:22 16:40	10:15 (B22) 08:51 15:46 36 11:03 (B22)
31	05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47 35 11:03 (B22)
Potential sun hours	529	469	385	324	247	216
Total, worst case		324			347	1099
Sun reduction		0.50			0.08	0.07
Oper. time red.		0.94			0.94	0.94
Wind dir. red.		0.65			0.61	0.61
Total reduction		0.30			0.05	0.04
Total, real		96			16	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:51	08:15	09:51 (B22)	07:11	06:49	05:33
	15:48	16:45	10:32 (B22)	17:48	19:53	20:55
2	08:50	09:59 (B22)	08:13	09:51 (B22)	07:08	06:46
	15:49	16:47	10:32 (B22)	17:50	19:55	20:57
3	08:50	09:57 (B22)	08:11	09:52 (B22)	07:06	06:43
	15:51	16:50	10:32 (B22)	17:52	19:57	21:00
4	08:50	09:56 (B22)	08:09	09:53 (B22)	07:03	06:41
	15:52	16:52	10:32 (B22)	17:54	19:59	21:02
5	08:49	09:56 (B22)	08:07	09:54 (B22)	07:00	06:38
	15:53	16:54	10:32 (B22)	17:56	20:01	21:04
6	08:49	09:55 (B22)	08:05	09:54 (B22)	06:58	06:35
	15:55	16:56	10:30 (B22)	17:58	20:03	21:06
7	08:48	09:54 (B22)	08:03	09:55 (B22)	06:55	06:33
	15:56	16:59	10:30 (B22)	18:00	20:05	21:08
8	08:48	09:54 (B22)	08:01	09:56 (B22)	06:53	06:30
	15:58	17:01	10:29 (B22)	18:03	20:08	21:10
9	08:47	09:53 (B22)	07:58	09:57 (B22)	06:50	06:28
	15:59	17:03	10:27 (B22)	18:05	20:10	21:12
10	08:46	09:53 (B22)	07:56	09:59 (B22)	06:47	06:25
	16:01	17:05	10:26 (B22)	18:07	20:12	21:14
11	08:45	09:52 (B22)	07:54	10:01 (B22)	06:45	06:22
	16:03	17:08	10:25 (B22)	18:09	20:14	21:16
12	08:44	09:52 (B22)	07:52	10:02 (B22)	06:42	06:20
	16:04	17:10	10:22 (B22)	18:11	20:16	21:18
13	08:43	09:51 (B22)	07:49	10:06 (B22)	06:40	06:17
	16:06	17:12	10:19 (B22)	18:13	20:18	21:20
14	08:42	09:51 (B22)	07:47	10:07 (B22)	06:37	06:14
	16:08	17:14	10:15 (B22)	18:15	20:20	21:22
15	08:41	09:50 (B22)	07:45	10:08 (B22)	06:34	06:12
	16:10	17:17	10:13 (B22)	18:18	20:22	21:24
16	08:40	09:51 (B22)	07:43	10:09 (B22)	06:32	06:09
	16:12	17:19	10:12 (B22)	18:20	20:24	21:25
17	08:39	09:51 (B22)	07:40	10:10 (B22)	06:29	06:07
	16:14	17:21	10:11 (B22)	18:22	20:26	21:27
18	08:37	09:50 (B22)	07:38	10:11 (B22)	06:26	06:04
	16:16	17:23	10:12 (B22)	18:24	20:28	21:29
19	08:36	09:50 (B22)	07:36	10:12 (B22)	06:24	06:02
	16:18	17:26	10:13 (B22)	18:26	20:30	21:31
20	08:35	09:50 (B22)	07:33	10:13 (B22)	06:21	05:59
	16:20	17:28	10:14 (B22)	18:28	20:33	21:33
21	08:33	09:50 (B22)	07:31	10:14 (B22)	06:18	05:57
	16:22	17:30	10:15 (B22)	18:30	20:35	21:35
22	08:32	09:50 (B22)	07:28	10:15 (B22)	06:16	05:54
	16:24	17:32	10:16 (B22)	18:32	20:37	21:37
23	08:30	09:49 (B22)	07:26	10:16 (B22)	06:13	05:52
	16:26	17:34	10:17 (B22)	18:34	20:39	21:38
24	08:29	09:50 (B22)	07:23	10:17 (B22)	06:10	05:49
	16:28	17:37	10:18 (B22)	18:36	20:41	21:40
25	08:27	09:50 (B22)	07:21	10:18 (B22)	06:07	05:47
	16:30	17:39	10:19 (B22)	18:38	20:43	21:42
26	08:26	09:50 (B22)	07:18	10:19 (B22)	06:05	05:44
	16:32	17:41	10:20 (B22)	18:41	20:45	21:43
27	08:24	09:50 (B22)	07:16	10:20 (B22)	06:02	05:42
	16:34	17:43	10:21 (B22)	18:43	20:47	21:45
28	08:22	09:50 (B22)	07:13	10:21 (B22)	05:59	05:40
	16:36	17:45	10:22 (B22)	18:45	20:49	21:47
29	08:20	09:51 (B22)	07:11	10:22 (B22)	05:57	05:37
	16:39	17:48	10:23 (B22)	18:47	20:51	21:48
30	08:18	09:51 (B22)	07:09	10:23 (B22)	05:54	05:35
	16:41	17:50	10:24 (B22)	18:49	20:53	21:50
31	08:17	09:51 (B22)	07:07	10:24 (B22)	05:51	05:33
	16:43	17:52	10:25 (B22)	18:51	20:55	21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case	943	417				
Sun reduction	0.13	0.20				
Oper. time red.	0.94	0.94				
Wind dir. red.	0.61	0.61				
Total reduction	0.08	0.12				
Total, real	72	48				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	09:28 (B22) 09:56 (B22)	08:24 15:45	09:35 (B22) 10:02 (B22)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:26 (B22) 09:57 (B22)	08:26 15:44	09:36 (B22) 10:02 (B22)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:26 (B22) 09:59 (B22)	08:28 15:43	09:36 (B22) 10:00 (B22)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:25 (B22) 10:00 (B22)	08:29 15:42	09:38 (B22) 10:00 (B22)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:23 (B22) 10:00 (B22)	08:31 15:42	09:39 (B22) 10:00 (B22)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:23 (B22) 10:01 (B22)	08:32 15:41	09:41 (B22) 09:59 (B22)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:23 (B22) 10:02 (B22)	08:34 15:40	09:42 (B22) 09:58 (B22)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:23 (B22) 10:03 (B22)	08:35 15:40	09:44 (B22) 09:58 (B22)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:22 (B22) 10:03 (B22)	08:37 15:39	09:45 (B22) 09:56 (B22)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:23 (B22) 10:04 (B22)	08:38 15:39	09:48 (B22) 09:55 (B22)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:22 (B22) 10:04 (B22)	08:39 15:38	
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:22 (B22) 10:04 (B22)	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	09:22 (B22) 10:05 (B22)	08:42 15:38	
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:22 (B22) 10:04 (B22)	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	09:22 (B22) 10:04 (B22)	08:44 15:38	
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:23 (B22) 10:05 (B22)	08:45 15:38	
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:23 (B22) 10:04 (B22)	08:46 15:38	
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:24 (B22) 10:05 (B22)	08:46 15:38	
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:24 (B22) 10:05 (B22)	08:47 15:38	
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:25 (B22) 10:04 (B22)	08:48 15:39	
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:25 (B22) 10:04 (B22)	08:48 15:39	
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:26 (B22) 10:05 (B22)	08:49 15:39	
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:27 (B22) 10:04 (B22)	08:50 15:40	
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:27 (B22) 10:04 (B22)	08:50 15:41	
25	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	09:28 (B22) 10:03 (B22)	08:50 15:41	
26	05:04 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	09:29 (B22) 10:03 (B22)	08:51 15:42	
27	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	09:30 (B22) 10:03 (B22)	08:51 15:43	
28	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	09:31 (B22) 10:03 (B22)	08:51 15:44	
29	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	09:35 (B22) 09:49 (B22)	08:21 15:47	09:32 (B22) 10:03 (B22)	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	09:31 (B22) 09:52 (B22)	08:22 15:46	09:33 (B22) 10:02 (B22)	08:51 15:46
31	05:14 21:30	06:15 20:17		07:20 16:38	09:29 (B22) 09:54 (B22)		08:51 15:47	
Potential sun hours	529	469	385	324	247		216	
Total, worst case				60	1124		186	
Sun reduction				0.26	0.08		0.07	
Oper. time red.				0.94	0.94		0.94	
Wind dir. red.				0.61	0.61		0.61	
Total reduction				0.15	0.05		0.04	
Total, real				9	53		8	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	15:56 (B22) 16:40 (B22)	06:49 19:53	05:32 20:55
2	08:50 15:49	08:13 16:47	07:08 17:50	15:56 (B22) 16:40 (B22)	06:46 19:55	05:30 20:57
3	08:50 15:51	08:11 16:50	07:06 17:52	15:56 (B22) 16:40 (B22)	06:43 19:57	05:28 20:59
4	08:50 15:52	08:09 16:52	07:03 17:54	15:56 (B22) 16:39 (B22)	06:41 19:59	05:26 21:01
5	08:49 15:53	08:07 16:54	07:00 17:56	15:56 (B22) 16:39 (B22)	06:38 20:01	05:23 21:04
6	08:49 15:55	08:05 16:56	06:58 17:58	15:56 (B22) 16:39 (B22)	06:35 20:03	05:21 21:06
7	08:48 15:56	08:03 16:59	06:55 18:00	15:56 (B22) 16:38 (B22)	06:33 20:05	05:19 21:08
8	08:47 15:58	08:00 17:01	06:53 18:03	15:57 (B22) 16:36 (B22)	06:30 20:07	05:17 21:10
9	08:47 15:59	07:58 17:03	06:50 18:05	15:58 (B22) 16:36 (B22)	06:27 20:10	05:15 21:12
10	08:46 16:01	07:56 17:05	06:47 18:07	15:58 (B22) 16:35 (B22)	06:25 20:12	05:13 21:14
11	08:45 16:03	07:54 17:08	06:45 18:09	15:59 (B22) 16:33 (B22)	06:22 20:14	05:10 21:16
12	08:44 16:04	07:52 17:10	06:42 18:11	16:01 (B22) 16:32 (B22)	06:20 20:16	05:08 21:18
13	08:43 16:06	07:49 17:12	06:39 18:13	16:02 (B22) 16:30 (B22)	06:17 20:18	05:06 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	16:04 (B22) 16:27 (B22)	06:14 20:20	05:04 21:22
15	08:41 16:10	07:45 17:17	06:34 18:17	16:07 (B22) 16:24 (B22)	06:12 20:22	05:02 21:23
16	08:40 16:12	07:43 17:19	16:14 (B22) 16:24 (B22)	06:31 18:20	06:09 20:24	05:01 21:25
17	08:39 16:14	07:40 17:21	16:10 (B22) 16:28 (B22)	06:29 18:22	06:07 20:26	05:39 (B4) 21:27
18	08:37 16:16	07:38 17:23	16:07 (B22) 16:31 (B22)	06:26 18:24	06:04 20:28	05:38 (B4) 21:29
19	08:36 16:18	07:35 17:25	16:06 (B22) 16:33 (B22)	06:23 18:26	06:02 20:30	05:38 (B4) 21:31
20	08:35 16:20	07:33 17:28	16:04 (B22) 16:34 (B22)	06:21 18:28	05:59 20:32	05:38 (B4) 21:33
21	08:33 16:22	07:31 17:30	16:03 (B22) 16:36 (B22)	06:18 18:30	05:57 20:35	05:38 (B4) 21:35
22	08:32 16:24	07:28 17:32	16:01 (B22) 16:37 (B22)	06:15 18:32	05:54 20:37	05:38 (B4) 21:36
23	08:30 16:26	07:26 17:34	16:00 (B22) 16:38 (B22)	06:13 18:34	05:52 20:39	05:37 (B4) 21:38
24	08:29 16:28	07:23 17:36	15:59 (B22) 16:38 (B22)	06:10 18:36	05:49 20:41	05:38 (B4) 21:40
25	08:27 16:30	07:21 17:39	15:58 (B22) 16:39 (B22)	06:07 18:38	05:47 20:43	05:38 (B4) 21:42
26	08:25 16:32	07:18 17:41	15:58 (B22) 16:40 (B22)	06:05 18:40	05:44 20:45	05:39 (B4) 21:43
27	08:24 16:34	07:16 17:43	15:57 (B22) 16:39 (B22)	06:02 18:43	05:42 20:47	05:38 (B4) 21:45
28	08:22 16:36	07:13 17:45	15:57 (B22) 16:40 (B22)	05:59 18:45	05:39 20:49	05:39 (B4) 21:46
29	08:20 16:39			06:57 19:47	05:37 20:51	05:39 (B4) 21:48
30	08:18 16:41			06:54 19:49	05:35 20:53	05:40 (B4) 21:50
31	08:17 16:43			06:51 19:51		05:40 (B4) 21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		423	555		573	517
Sun reduction		0.20	0.41		0.57	0.56
Oper. time red.		0.94	0.94		0.94	0.94
Wind dir. red.		0.67	0.67		0.67	0.67
Total reduction		0.13	0.26		0.36	0.35
Total, real		54	144		206	182

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:

10/04/2024 05:50/4.0.531

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) []

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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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July			August			September			October			November		December	
1	04:30		05:50 (B4)	05:16		05:52 (B4)	06:17			07:17		16:41 (B22)	07:22		08:24	
	22:09	17	06:07 (B4)	21:28	20	06:12 (B4)	20:14			18:54	30	17:11 (B22)	16:36		15:45	
2	04:31		05:50 (B4)	05:17		05:54 (B4)	06:19			07:19		16:39 (B22)	07:25		08:26	
	22:08	18	06:08 (B4)	21:26	17	06:11 (B4)	20:11			18:51	33	17:12 (B22)	16:34		15:44	
3	04:32		05:50 (B4)	05:19		05:56 (B4)	06:21			07:21		16:37 (B22)	07:27		08:27	
	22:08	19	06:09 (B4)	21:24	13	06:09 (B4)	20:09			18:48	35	17:12 (B22)	16:31		15:43	
4	04:33		05:50 (B4)	05:21		05:59 (B4)	06:23			07:23		16:35 (B22)	07:29		08:29	
	22:07	20	06:10 (B4)	21:22	7	06:06 (B4)	20:06			18:46	38	17:13 (B22)	16:29		15:42	
5	04:34		05:50 (B4)	05:23			06:25			07:25		16:34 (B22)	07:31		08:31	
	22:07	20	06:10 (B4)	21:19			20:03			18:43	39	17:13 (B22)	16:27		15:42	
6	04:35		05:50 (B4)	05:25			06:27			07:27		16:33 (B22)	07:33		08:32	
	22:06	21	06:11 (B4)	21:17			20:01			18:40	41	17:14 (B22)	16:25		15:41	
7	04:36		05:49 (B4)	05:27			06:29			07:29		16:32 (B22)	07:36		08:34	
	22:05	23	06:12 (B4)	21:15			19:58			18:38	42	17:14 (B22)	16:23		15:40	
8	04:37		05:49 (B4)	05:29			06:31			07:31		16:31 (B22)	07:38		08:35	
	22:04	23	06:12 (B4)	21:13			19:55			18:35	43	17:14 (B22)	16:21		15:40	
9	04:38		05:49 (B4)	05:31			06:33			07:34		16:30 (B22)	07:40		08:36	
	22:03	23	06:12 (B4)	21:11			19:53			18:32	44	17:14 (B22)	16:19		15:39	
10	04:39		05:49 (B4)	05:33			06:35			07:36		16:31 (B22)	07:42		08:38	
	22:02	24	06:13 (B4)	21:08			19:50			18:30	43	17:14 (B22)	16:17		15:39	
11	04:41		05:48 (B4)	05:35			06:37			07:38		16:30 (B22)	07:44		08:39	
	22:01	25	06:13 (B4)	21:06			19:47			18:27	44	17:14 (B22)	16:15		15:38	
12	04:42		05:49 (B4)	05:37			06:39			07:40		16:30 (B22)	07:46		08:40	13:40 (B24)
	22:00	25	06:14 (B4)	21:04			19:45			18:25	43	17:13 (B22)	16:13	15:38	2	13:42 (B24)
13	04:43		05:48 (B4)	05:39			06:41			07:42		16:29 (B22)	07:48		08:41	13:39 (B24)
	21:59	27	06:15 (B4)	21:01			19:42			18:22	44	17:13 (B22)	16:11	15:38	6	13:45 (B24)
14	04:45		05:48 (B4)	05:41			06:43			07:44		16:29 (B22)	07:51		08:43	13:39 (B24)
	21:58	27	06:15 (B4)	20:59			19:39			18:19	43	17:12 (B22)	16:09	15:38	7	13:46 (B24)
15	04:46		05:48 (B4)	05:43			06:45			07:46		16:30 (B22)	07:53		08:44	13:38 (B24)
	21:56	27	06:15 (B4)	20:57			19:37			18:17	42	17:12 (B22)	16:07	15:38	9	13:47 (B24)
16	04:48		05:48 (B4)	05:45			06:47			07:48		16:30 (B22)	07:55		08:45	13:38 (B24)
	21:55	28	06:16 (B4)	20:54			19:34			18:14	41	17:11 (B22)	16:06	15:38	10	13:48 (B24)
17	04:49		05:48 (B4)	05:47			06:49			07:50		16:30 (B22)	07:57		08:45	13:39 (B24)
	21:54	28	06:16 (B4)	20:52			19:31			18:12	40	17:10 (B22)	16:04	15:38	10	13:49 (B24)
18	04:51		05:48 (B4)	05:49			06:51			07:52		16:30 (B22)	07:59		08:46	13:39 (B24)
	21:52	28	06:16 (B4)	20:49			19:28			18:09	39	17:09 (B22)	16:02	15:38	11	13:50 (B24)
19	04:52		05:48 (B4)	05:51			06:53			07:54		16:31 (B22)	08:01		08:47	13:38 (B24)
	21:51	28	06:16 (B4)	20:47			19:26			18:07	37	17:08 (B22)	16:01	15:38	12	13:50 (B24)
20	04:54		05:48 (B4)	05:53			06:55			07:57		16:32 (B22)	08:03		08:48	13:39 (B24)
	21:49	29	06:17 (B4)	20:45			19:23			18:04	36	17:08 (B22)	15:59	15:39	12	13:51 (B24)
21	04:56		05:48 (B4)	05:55			06:57			07:59		16:33 (B22)	08:05		08:48	13:40 (B24)
	21:48	28	06:16 (B4)	20:42			19:20			18:02	33	17:06 (B22)	15:58	15:39	12	13:52 (B24)
22	04:57		05:48 (B4)	05:57			06:59			08:01		16:34 (B22)	08:07		08:49	13:40 (B24)
	21:46	29	06:17 (B4)	20:40			19:18			17:59	30	17:04 (B22)	15:56	15:39	12	13:52 (B24)
23	04:59		05:48 (B4)	05:59			07:01			08:03		16:37 (B22)	08:09		08:49	13:40 (B24)
	21:44	28	06:16 (B4)	20:37			19:15			17:57	26	17:03 (B22)	15:55	15:40	12	13:52 (B24)
24	05:01		05:48 (B4)	06:01			07:03			08:05		16:38 (B22)	08:11		08:50	13:41 (B24)
	21:43	29	06:17 (B4)	20:35			19:12			17:55	22	17:00 (B22)	15:53	15:40	12	13:53 (B24)
25	05:03		05:48 (B4)	06:03			07:05			07:07		15:41 (B22)	08:13		08:50	13:42 (B24)
	21:41	28	06:16 (B4)	20:32			19:10			16:52	16	15:57 (B22)	15:52	15:41	11	13:53 (B24)
26	05:04		05:49 (B4)	06:05			07:07			07:09		15:47 (B22)	08:15		08:50	13:42 (B24)
	21:39	27	06:16 (B4)	20:29			19:07			16:50	5	15:52 (B22)	15:51	15:42	11	13:53 (B24)
27	05:06		05:50 (B4)	06:07			07:09			07:12			08:17		08:51	13:43 (B24)
	21:37	26	06:16 (B4)	20:27			19:04			16:47			15:49	15:43	10	13:53 (B24)
28	05:08		05:49 (B4)	06:09			07:11		16:50 (B22)	07:14			08:19		08:51	13:44 (B24)
	21:36	26	06:15 (B4)	20:24			19:02	14	17:04 (B22)	16:45			15:48	15:44	9	13:53 (B24)
29	05:10		05:50 (B4)	06:11			07:13		16:46 (B22)	07:16			08:21		08:51	13:45 (B24)
	21:34	24	06:14 (B4)	20:22			18:59	21	17:07 (B22)	16:43			15:47	15:45	8	13:53 (B24)
30	05:12		05:51 (B4)	06:13			07:15		16:43 (B22)	07:18			08:22		08:51	13:47 (B24)
	21:32	23	06:14 (B4)	20:19			18:56	26	17:09 (B22)	16:40			15:46	15:46	6	13:53 (B24)
31	05:14		05:52 (B4)	06:15						07:20					08:51	13:48 (B24)
	21:30	21	06:13 (B4)	20:17						16:38				15:47	4	13:52 (B24)
Potential sun hours	529			469			385			324			247	216		
Total, worst case		769			57		61			929					186	
Sun reduction		0.49			0.50		0.43			0.26					0.07	
Oper. time red.		0.94			0.94		0.94			0.94					0.94	
Wind dir. red.		0.67			0.67		0.67			0.67					0.65	
Total reduction		0.31			0.31		0.27			0.16					0.04	
Total, real		239			18		16			152					8	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	16:20 (B3) 06:48 19:53	05:32 20:55 05:30	04:35 21:52 04:34	04:29 22:09 04:30	05:15 21:28 05:17	06:17 20:14 06:19	07:17 18:53 07:19		07:22 16:35 08:26
2	15:49 08:50	16:47 08:10	17:49 07:05	16:52 (B3) 06:43	20:57 05:27	21:54 04:33	22:08 04:31	21:25 05:19	20:11 06:21	18:50 07:21	17:08 (B3)	07:27 16:33 08:27
3	15:50 08:49	16:49 08:08	17:51 07:03	16:51 (B3) 06:40	20:59 05:25	21:55 04:32	22:08 04:32	21:23 05:21	20:08 06:23	18:48 07:23	8 17:16 (B3)	16:31 07:29 15:43
4	15:51 08:49	16:51 08:06	17:54 07:00	16:51 (B3) 06:38	21:01 05:23	21:56 04:31	22:07 04:33	21:21 05:23	20:06 06:25	18:45 07:25	15 17:20 (B3)	16:29 07:31 15:42
5	15:53 08:48	16:54 08:04	17:56 06:57	16:50 (B3) 06:35	21:03 05:21	21:58 04:30	22:06 04:34	21:19 05:25	20:03 06:27	18:43 07:27	20 17:22 (B3)	16:27 07:33 15:41
6	15:54 08:48	16:56 08:02	17:58 06:55	16:49 (B3) 06:32	21:05 05:18	21:59 04:29	22:06 04:35	21:17 05:27	20:00 06:29	18:40 07:29	24 17:24 (B3)	16:25 07:35 15:40
7	15:56 08:47	16:58 08:00	18:00 06:52	16:48 (B3) 06:30	21:07 05:16	22:00 04:29	22:05 04:36	21:15 05:29	19:58 06:31	18:37 07:31	26 17:24 (B3)	16:23 07:37 15:40
8	15:57 08:46	17:00 07:58	18:02 06:50	16:46 (B3) 06:27	21:09 05:14	22:01 04:28	22:04 04:38	21:13 05:31	19:55 06:33	18:35 07:33	28 17:25 (B3)	16:20 07:40 15:39
9	15:59 08:46	17:03 07:56	18:04 06:47	16:44 (B3) 06:24	21:11 05:12	22:02 04:27	22:03 04:39	21:10 05:33	19:52 06:35	18:32 07:35	30 17:25 (B3)	16:18 07:42 15:38
10	16:01 08:45	17:05 07:54	18:06 06:44	16:41 (B3) 06:22	21:13 05:10	22:03 04:27	22:02 04:40	21:08 05:35	19:50 06:37	18:29 07:37	31 17:25 (B3)	16:16 07:44 15:38
11	16:02 08:44	17:07 07:51	18:09 06:42		21:15 05:08	22:04 04:26	22:01 04:41	21:06 05:37	19:47 06:39	18:27 07:39	32 17:25 (B3)	16:14 07:46 15:38
12	16:04 08:43	17:09 07:49	18:11 06:39		21:17 05:06	22:05 04:26	22:00 04:43	21:03 05:39	19:44 06:41	18:24 07:42	32 17:25 (B3)	16:13 07:48 15:38
13	16:06 08:42	17:12 07:47	18:13 06:36		21:19 05:04	22:06 04:25	21:59 04:44	21:01 05:41	19:42 06:43	18:22 07:44	33 17:26 (B3)	16:11 07:50 15:37
14	16:08 08:41	17:14 07:45	18:15 06:34		21:21 05:02	22:06 04:25	21:58 04:46	20:59 05:43	19:39 06:45	18:19 07:46	32 17:25 (B3)	16:09 07:52 15:37
15	16:09 08:40	17:16 07:42	18:17 06:31		21:23 05:00	22:07 04:25	21:56 04:47	20:56 05:45	19:36 06:47	18:16 07:48	33 17:25 (B3)	16:07 07:55 15:37
16	16:11 08:38	17:18 07:40	18:19 06:28		21:25 05:06	22:08 04:25	21:55 04:49	20:54 05:47	19:34 06:49	18:14 07:50	32 17:24 (B3)	16:05 07:57 15:37
17	16:13 08:37	17:21 07:38	18:21 06:26		21:27 05:04	22:08 04:25	21:54 04:50	20:52 05:49	19:31 06:51	18:11 07:52	31 17:24 (B3)	16:04 07:59 15:37
18	16:15 08:36	17:23 07:35	18:23 06:23		21:29 05:01	22:09 04:25	21:52 04:52	20:49 05:51	19:28 06:53	18:09 07:54	30 17:23 (B3)	16:02 08:01 15:37
19	16:17 08:34	17:25 07:33	18:25 06:20		21:31 05:03	22:09 04:25	21:51 04:54	20:47 05:53	19:25 06:55	18:06 07:56	28 17:22 (B3)	16:00 08:03 15:38
20	16:19 08:33	17:27 07:30	18:28 06:18		21:33 05:05	22:09 04:25	21:49 04:55	20:44 05:55	19:23 06:57	18:04 07:58	27 17:21 (B3)	15:59 08:05 15:38
21	16:21 08:32	17:29 07:28	18:30 06:15		21:34 05:04	22:10 04:25	21:48 04:57	20:42 05:57	19:20 06:59	18:01 08:01	24 17:20 (B3)	15:57 08:07 15:38
22	16:23 08:30	17:32 07:25	18:32 06:12		21:36 05:01	22:10 04:25	21:46 04:59	20:39 05:59	19:17 07:01	17:59 08:03	21 17:18 (B3)	15:56 08:09 15:39
23	16:25 08:28	17:34 07:23	18:34 06:10		21:38 05:04	22:10 04:25	21:44 05:00	20:37 06:01	17:57 07:03	17:57 08:05	16 17:15 (B3)	15:54 08:11 15:39
24	16:27 08:27	17:36 07:20	18:36 06:07		21:40 05:06	22:10 04:26	21:43 05:02	20:34 06:03	17:54 07:05	17:54 07:07	9 17:12 (B3)	15:53 08:13 15:40
25	16:29 08:25	17:38 07:18	18:38 06:04		21:42 05:04	22:10 04:26	21:41 05:04	20:32 06:05	17:52 07:07	17:52 07:09		15:51 08:15 15:41
26	16:32 08:23	17:40 07:15	18:40 06:02		21:43 05:04	22:10 04:27	21:39 05:06	20:29 06:07	17:50 07:11	17:50 07:11		15:50 08:17 15:41
27	16:34 08:22	17:43 07:13	18:42 05:59		21:45 05:09	22:10 04:27	21:37 05:08	20:27 06:09	17:50 07:11	17:50 07:13		15:49 08:18 15:42
28	16:36 08:20	17:45 07:06	18:44 06:56		21:46 05:37	22:10 04:39	21:35 05:09	20:24 06:11	17:50 07:13	17:50 07:16		15:48 08:20 15:43
29	16:38 08:18		19:46 06:54		21:48 05:34	22:09 04:38	21:33 04:29	20:21 05:11	18:59 07:15	16:42 07:18		15:47 08:22 15:44
30	16:40 08:16		19:48 06:51		21:49 05:31	22:09 04:36	21:31 05:13	20:19 06:15	18:56 07:20	16:40 07:20		15:45 08:51 15:45
31	16:42		19:50		21:51	20:16	21:30	20:16	16:38			15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		289		260						562		
Sun reduction		0.20		0.41						0.26		
Oper. time red.		0.94		0.94						0.94		
Wind dir. red.		0.67		0.67						0.67		
Total reduction		0.13		0.26						0.16		
Total, real		37		68						92		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	16:16 (B22)	06:49	05:32
	15:48	16:45	17:47	37	16:53 (B22)	19:53
2	08:50	08:13	07:08	16:15 (B22)	06:46	05:30
	15:49	16:47	17:50	38	16:53 (B22)	19:55
3	08:50	08:11	07:06	16:15 (B22)	06:43	05:28
	15:51	16:50	17:52	38	16:53 (B22)	19:57
4	08:50	08:09	07:03	16:15 (B22)	06:41	05:26
	15:52	16:52	17:54	38	16:53 (B22)	19:59
5	08:49	08:07	07:00	16:14 (B22)	06:38	05:23
	15:53	16:54	17:56	38	16:52 (B22)	20:01
6	08:49	08:05	06:58	16:15 (B22)	06:35	05:21
	15:55	16:56	17:58	38	16:53 (B22)	20:03
7	08:48	08:03	06:55	16:15 (B22)	06:33	05:19
	15:56	16:59	18:00	37	16:52 (B22)	20:05
8	08:47	08:00	06:53	16:15 (B22)	06:30	05:17
	15:58	17:01	18:03	36	16:51 (B22)	20:07
9	08:47	07:58	06:50	16:16 (B22)	06:27	05:15
	15:59	17:03	18:05	34	16:50 (B22)	20:10
10	08:46	07:56	06:47	16:16 (B22)	06:25	05:13
	16:01	17:05	18:07	33	16:49 (B22)	20:12
11	08:45	07:54	06:45	16:17 (B22)	06:22	05:10
	16:03	17:08	18:09	31	16:48 (B22)	20:14
12	08:44	07:52	06:42	16:19 (B22)	06:20	05:08
	16:04	17:10	18:11	28	16:47 (B22)	20:16
13	08:43	07:49	06:39	16:20 (B22)	06:17	05:06
	16:06	17:12	18:13	25	16:45 (B22)	20:18
14	08:42	07:47	06:37	16:21 (B22)	06:14	05:04
	16:08	17:14	18:15	21	16:42 (B22)	20:20
15	08:41	07:45	06:34	16:24 (B22)	06:12	05:02
	16:10	17:16	18:17	15	16:39 (B22)	20:22
16	08:40	07:42	06:31		06:09	05:01
	16:12	17:19	18:20		20:24	21:25
17	08:39	07:40	06:29		06:07	04:59
	16:14	17:21	18:22		20:26	21:27
18	08:37	07:38	06:26		06:04	04:57
	16:16	17:23	18:24		20:28	21:29
19	08:36	07:35	06:23		06:02	04:55
	16:18	17:25	18:26		20:30	21:31
20	08:35	07:33	16:29 (B22)	06:21	05:59	04:53
	16:20	17:28	12	16:41 (B22)	18:28	20:32
21	08:33	07:31	16:26 (B22)	06:18	05:57	04:52
	16:22	17:30	19	16:45 (B22)	18:30	20:35
22	08:32	07:28	16:23 (B22)	06:15	05:54	04:50
	16:24	17:32	24	16:47 (B22)	18:32	20:37
23	08:30	07:26	16:22 (B22)	06:13	05:52	04:48
	16:26	17:34	27	16:49 (B22)	18:34	20:39
24	08:29	07:23	16:20 (B22)	06:10	05:49	04:47
	16:28	17:36	30	16:50 (B22)	18:36	20:41
25	08:27	07:21	16:19 (B22)	06:07	05:47	04:45
	16:30	17:39	31	16:50 (B22)	18:38	20:43
26	08:25	07:18	16:18 (B22)	06:05	05:44	04:44
	16:32	17:41	34	16:52 (B22)	18:40	20:45
27	08:24	07:16	16:17 (B22)	06:02	05:42	04:42
	16:34	17:43	35	16:52 (B22)	18:43	20:47
28	08:22	07:13	16:17 (B22)	05:59	05:39	04:41
	16:36	17:45	36	16:53 (B22)	18:45	20:49
29	08:20			06:57	05:37	04:39
	16:39			19:47	20:51	21:48
30	08:18			06:54	05:35	04:38
	16:41			19:49	21:50	22:53
31	08:17			06:51		04:37
	16:43			19:51	21:51	06:01 (B4)
Potential sun hours	235	266	366	426	508	529
Total, worst case			487		427	935
Sun reduction		248	0.20	0.41	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.67	0.67	0.67	0.67	0.67
Total reduction		0.13	0.26	0.36	0.36	0.35
Total, real		32	127	154	331	

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July		August		September		October		November		December	
1	04:30	05:35 (B4)	05:16	06:17	07:17	16:58 (B22)	07:22	08:24				
	22:09	32 06:07 (B4)	21:28	20:14	18:54	27 17:25 (B22)	16:36	15:45				
2	04:31	05:36 (B4)	05:17	06:19	07:19	16:56 (B22)	07:25	08:26				
	22:08	31 06:07 (B4)	21:26	20:11	18:51	30 17:26 (B22)	16:34	15:44				
3	04:32	05:36 (B4)	05:19	06:21	07:21	16:55 (B22)	07:27	08:27				
	22:08	32 06:08 (B4)	21:24	20:09	18:48	32 17:27 (B22)	16:31	15:43				
4	04:33	05:36 (B4)	05:21	06:23	07:23	16:53 (B22)	07:29	08:29				
	22:07	32 06:08 (B4)	21:22	20:06	18:46	34 17:27 (B22)	16:29	15:42				
5	04:34	05:36 (B4)	05:23	06:25	07:25	16:52 (B22)	07:31	08:31				
	22:07	32 06:08 (B4)	21:19	20:03	18:43	36 17:28 (B22)	16:27	15:42				
6	04:35	05:37 (B4)	05:25	06:27	07:27	16:51 (B22)	07:33	08:32				
	22:06	31 06:08 (B4)	21:17	20:01	18:40	37 17:28 (B22)	16:25	15:41				
7	04:36	05:37 (B4)	05:27	06:29	07:29	16:50 (B22)	07:36	08:34				
	22:05	32 06:09 (B4)	21:15	19:58	18:38	38 17:28 (B22)	16:23	15:40				
8	04:37	05:37 (B4)	05:29	06:31	07:31	16:50 (B22)	07:38	08:35				
	22:04	32 06:09 (B4)	21:13	19:55	18:35	37 17:27 (B22)	16:21	15:40				
9	04:38	05:37 (B4)	05:31	06:33	07:34	16:49 (B22)	07:40	08:36				
	22:03	32 06:09 (B4)	21:11	19:53	18:32	38 17:27 (B22)	16:19	15:39				
10	04:39	05:37 (B4)	05:33	06:35	07:36	16:50 (B22)	07:42	08:38				
	22:02	32 06:09 (B4)	21:08	19:50	18:30	38 17:28 (B22)	16:17	15:39				
11	04:41	05:37 (B4)	05:35	06:37	07:38	16:49 (B22)	07:44	08:39				
	22:01	32 06:09 (B4)	21:06	19:47	18:27	38 17:27 (B22)	16:15	15:38				
12	04:42	05:38 (B4)	05:37	06:39	07:40	16:49 (B22)	07:46	08:40				
	22:00	32 06:10 (B4)	21:04	19:45	18:25	37 17:26 (B22)	16:13	15:38				
13	04:43	05:38 (B4)	05:39	06:41	07:42	16:49 (B22)	07:48	08:41				
	21:59	31 06:09 (B4)	21:01	19:42	18:22	37 17:26 (B22)	16:11	15:38				
14	04:45	05:38 (B4)	05:41	06:43	07:44	16:49 (B22)	07:51	08:43				
	21:58	31 06:09 (B4)	20:59	19:39	18:19	36 17:25 (B22)	16:09	15:38				
15	04:46	05:38 (B4)	05:43	06:45	07:46	16:50 (B22)	07:53	08:44				
	21:56	31 06:09 (B4)	20:57	19:37	18:17	35 17:25 (B22)	16:07	15:38				
16	04:48	05:39 (B4)	05:45	06:47	07:48	16:51 (B22)	07:55	08:45				
	21:55	30 06:09 (B4)	20:54	19:34	18:14	32 17:23 (B22)	16:06	15:38				
17	04:49	05:39 (B4)	05:47	06:49	07:50	16:51 (B22)	07:57	08:45				
	21:54	30 06:09 (B4)	20:52	19:31	18:12	31 17:22 (B22)	16:04	15:38				
18	04:51	05:40 (B4)	05:49	06:51	07:52	16:52 (B22)	07:59	08:46				
	21:52	29 06:09 (B4)	20:49	19:28	18:09	28 17:20 (B22)	16:02	15:38				
19	04:52	05:40 (B4)	05:51	06:53	07:54	16:53 (B22)	08:01	08:47				
	21:51	28 06:08 (B4)	20:47	19:26	18:07	25 17:18 (B22)	16:01	15:38				
20	04:54	05:41 (B4)	05:53	06:55	07:57	16:55 (B22)	08:03	08:48				
	21:49	28 06:09 (B4)	20:45	19:23	18:04	22 17:17 (B22)	15:59	15:38				
21	04:56	05:41 (B4)	05:55	06:57	07:59	16:57 (B22)	08:05	08:48				
	21:48	27 06:08 (B4)	20:42	19:20	18:02	17 17:14 (B22)	15:58	15:39				
22	04:57	05:42 (B4)	05:57	06:59	08:01	17:01 (B22)	08:07	08:49				
	21:46	26 06:08 (B4)	20:40	19:18	17:59	9 17:10 (B22)	15:56	15:39				
23	04:59	05:42 (B4)	05:59	07:01	08:03		08:09	08:49				
	21:44	24 06:06 (B4)	20:37	19:15	17:57		15:55	15:40				
24	05:01	05:43 (B4)	06:01	07:03	08:05		08:11	08:50				
	21:43	23 06:06 (B4)	20:35	19:12	17:55		15:53	15:40				
25	05:03	05:44 (B4)	06:03	07:05	07:07		08:13	08:50				
	21:41	21 06:05 (B4)	20:32	19:10	16:52		15:52	15:41				
26	05:04	05:45 (B4)	06:05	07:07	07:09		08:15	08:50				
	21:39	19 06:04 (B4)	20:29	19:07	16:50		15:51	15:42				
27	05:06	05:47 (B4)	06:07	07:09	07:12		08:17	08:51				
	21:37	16 06:03 (B4)	20:27	19:04	16:47		15:49	15:43				
28	05:08	05:48 (B4)	06:09	07:11	07:14	17:07 (B22)	08:19	08:51				
	21:36	12 06:00 (B4)	20:24	19:02	12 17:19 (B22)	16:45	15:48	15:44				
29	05:10	05:53 (B4)	06:11	07:13	07:16	17:03 (B22)	08:21	08:51				
	21:34	3 05:56 (B4)	20:22	18:59	19 17:22 (B22)	16:43	15:47	15:44				
30	05:12		06:13	07:15	07:18	17:00 (B22)	08:22	08:51				
	21:32		20:19	18:56	24 17:24 (B22)	16:40	15:46	15:46				
31	05:14		06:15		07:20			08:51				
	21:30		20:16		16:38			15:47				
Potential sun hours	529		469	385	324		247	216				
Total, worst case	791			55	694							
Sun reduction	0.49			0.43	0.26							
Oper. time red.	0.94			0.94	0.94							
Wind dir. red.	0.67			0.67	0.67							
Total reduction	0.31			0.27	0.16							
Total, real	247			15	114							

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	06:21 20:33	05:59 21:33	04:54 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:00 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:46 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:42
26	08:25 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:50 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:37	06:08 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:36	06:10 20:24	07:11 19:02	07:14 16:45	08:19 15:49	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:12 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:16 20:17		07:20 16:38		08:51 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Uzkalnini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (211)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Vaivarini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (171)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	05:16 (B14) 04:30 23	05:23 (B14) 05:16 23	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	05:16 (B14) 04:31 23	05:22 (B14) 05:18 23	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	05:17 (B14) 04:32 23	05:23 (B14) 05:20 22	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	05:17 (B14) 04:33 23	05:23 (B14) 05:22 23	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	05:17 (B14) 04:34 23	05:23 (B14) 05:24 23	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	05:17 (B14) 04:35 23	05:23 (B14) 05:26 23	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	05:18 (B14) 04:36 23	05:23 (B14) 05:27 24	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	05:18 (B14) 04:37 23	05:23 (B14) 05:29 24	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	05:18 (B14) 04:38 23	05:24 (B14) 05:31 23	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	06:47 18:09	06:22 20:14	05:11 21:16	04:28 22:03	05:19 (B14) 04:41 23	05:25 (B14) 05:35 23	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	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	05:18 (B14) 04:42 23	05:25 (B14) 05:37 23	06:39 19:47	07:40 18:27	07:46 16:15	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	05:19 (B14) 04:44 22	05:25 (B14) 05:39 22	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	05:19 (B14) 04:45 23	05:25 (B14) 05:41 22	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 (B14) 04:47 22	05:26 (B14) 05:43 22	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 (B14) 04:48 22	05:26 (B14) 05:45 21	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 (B14) 04:50 21	05:27 (B14) 05:47 20	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 (B14) 04:51 22	05:27 (B14) 05:49 20	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 (B14) 04:53 22	05:28 (B14) 05:51 18	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
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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 (B14) 04:56 22	05:31 (B14) 05:55 14	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 (B14) 04:58 22	05:33 (B14) 05:57 11	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 (B14) 04:59 22	05:35 (B14) 05:59 8	07:01 19:15	08:03 17:57	08:09 15:55	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	04:45 21:42	04:27 22:10	05:22 (B14) 05:03 21	05:37 (B14) 06:03 20	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	05:22 (B14) 05:05 22	05:38 (B14) 06:05 20	07:07 19:07	08:10 16:50	08:15 15:51	08:51 15:42
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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	05:23 (B14) 05:08 22	05:40 (B14) 06:09 20	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
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31	08:17 16:43	07:05 17:51	05:52 18:51	05:37 20:53	04:37 21:51	04:37 22:09	05:23 (B14) 05:14 23	05:43 (B14) 06:15 20	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					214	670	476					
Sun reduction					0.57	0.56	0.49					
Oper. time red.					0.94	0.94	0.94					
Wind dir. red.					0.67	0.67	0.67					
Total reduction					0.36	0.35	0.31					
Total, real					77	237	148					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
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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
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
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31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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			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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	07:45 (B24) 07:51 (B24)	05:33 20:55
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	36 07:15 (B14) 21:53
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	36 07:15 (B14) 21:54
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	34 07:14 (B14) 21:55
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	33 07:13 (B14) 21:57
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	31 07:12 (B14) 21:58
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	29 07:11 (B14) 21:59
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	27 07:10 (B14) 22:00
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	24 07:08 (B14) 22:01
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	21 07:07 (B14) 22:02
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	16 07:04 (B14) 22:03
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	11 07:01 (B14) 22:04
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	5 07:04 (B14) 22:05
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	15 07:09 (B14) 22:06
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	15 07:11 (B14) 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	21 07:13 (B14) 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	28 07:14 (B14) 22:09
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	31 07:16 (B14) 22:10
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	33 07:16 (B14) 22:11
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	34 07:17 (B14) 22:12
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	36 07:18 (B14) 22:13
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	37 07:18 (B14) 22:14
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	38 07:18 (B14) 22:15
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	39 07:18 (B14) 22:16
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	39 07:18 (B14) 22:17
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	39 07:18 (B14) 22:18
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	39 07:17 (B14) 22:19
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	39 07:17 (B14) 22:20
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	38 07:17 (B14) 22:21
30	08:18 16:41	07:09 17:49	05:55 18:49	05:35 20:53	04:38 21:50	38 07:17 (B14) 22:22
31	08:17 16:43	07:08 17:51	05:54 18:51	05:34 20:55	04:37 21:51	38 07:17 (B14) 22:23
Potential sun hours	235	266	366	426	508	528
Total, worst case			248	618	298	
Sun reduction			0.41	0.50	0.57	
Oper. time red.			0.94	0.94	0.94	
Wind dir. red.			0.65	0.66	0.66	
Total reduction			0.25	0.31	0.35	
Total, real			62	191	105	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30	05:16	07:03 (B14)	06:17	07:17	07:23
	22:09	21:28	5 07:08 (B14)	20:14	18:54	16:36
2	04:31	05:18	06:59 (B14)	06:19	07:19	07:25
	22:08	21:26	14 07:13 (B14)	20:11	18:51	16:34
3	04:32	05:20	06:57 (B14)	06:21	07:21	07:27
	22:08	21:24	18 07:15 (B14)	20:09	18:48	16:32
4	04:33	05:22	06:56 (B14)	06:23	07:23	07:29
	22:07	21:22	21 07:17 (B14)	20:06	18:46	16:30
5	04:34	05:24	06:54 (B14)	06:25	07:25	07:31
	22:07	21:19	25 07:19 (B14)	20:03	18:43	16:27
6	04:35	05:25	06:52 (B14)	06:27	07:28	07:33
	22:06	21:17	28 07:20 (B14)	20:01	18:40	16:25
7	04:36	05:27	06:51 (B14)	06:29	07:30	07:36
	22:05	21:15	30 07:21 (B14)	19:58	18:38	16:23
8	04:37	05:29	06:50 (B14)	06:31	07:32	07:38
	22:04	21:13	32 07:22 (B14)	19:56	18:35	16:21
9	04:38	05:31	06:50 (B14)	06:33	07:34	07:40
	22:03	21:11	33 07:23 (B14)	19:53	18:33	16:19
10	04:40	05:33	06:49 (B14)	06:35	07:36	07:42
	22:02	21:08	34 07:23 (B14)	19:50	18:30	16:17
11	04:41	05:35	06:48 (B14)	06:37	07:38	07:44
	22:01	21:06	36 07:24 (B14)	19:47	18:27	16:15
12	04:42	05:37	06:47 (B14)	06:39	07:39	07:46
	22:00	21:04	37 07:24 (B14)	19:45	18:25	16:13
13	04:44	05:39	06:47 (B14)	06:41	07:42	07:49
	21:59	21:02	37 07:24 (B14)	19:42	18:22	16:11
14	04:45	05:41	06:46 (B14)	06:43	07:44	07:51
	21:58	20:59	38 07:24 (B14)	19:39	18:20	16:10
15	04:46	05:43	06:46 (B14)	06:45	07:46	07:53
	21:57	20:57	39 07:25 (B14)	19:37	18:17	16:08
16	04:48	05:45	06:46 (B14)	06:47	07:48	07:55
	21:55	20:54	39 07:25 (B14)	19:34	18:15	16:06
17	04:49	05:47	06:46 (B14)	06:49	07:50	07:57
	21:54	20:52	39 07:25 (B14)	19:31	18:12	16:04
18	04:51	05:49	06:46 (B14)	06:51	07:52	07:59
	21:52	20:50	39 07:25 (B14)	19:29	18:09	16:03
19	04:53	05:51	06:45 (B14)	06:53	07:55	08:01
	21:51	20:47	38 07:23 (B14)	19:26	18:07	16:01
20	04:54	05:53	06:45 (B14)	06:55	07:57	08:03
	21:49	20:45	38 07:23 (B14)	19:23	18:04	15:59
21	04:56	05:55	06:45 (B14)	06:57	07:59	08:05
	21:48	20:42	38 07:23 (B14)	19:21	18:02	15:58
22	04:58	05:57	06:45 (B14)	06:59	08:01	08:07
	21:46	20:40	37 07:22 (B14)	19:18	18:00	15:56
23	04:59	05:59	06:46 (B14)	07:01	08:03	08:09
	21:45	20:37	35 07:21 (B14)	19:15	17:57	15:55
24	05:01	06:01	06:46 (B14)	07:03	08:05	08:11
	21:43	20:35	35 07:21 (B14)	19:12	17:55	15:53
25	05:03	06:03	06:47 (B14)	07:05	08:07	08:13
	21:41	20:32	33 07:20 (B14)	19:10	17:52	15:52
26	05:05	06:05	06:48 (B14)	07:07	08:10	08:15
	21:39	20:30	30 07:18 (B14)	19:07	17:50	15:51
27	05:06	06:07	06:49 (B14)	07:09	08:12	08:17
	21:38	20:27	28 07:17 (B14)	19:04	17:48	15:50
28	05:08	06:09	06:49 (B14)	07:11	08:14	08:19
	21:36	20:24	25 07:14 (B14)	19:02	17:45	15:48
29	05:10	06:11	06:51 (B14)	07:13	08:16	08:21
	21:34	20:22	21 07:12 (B14)	18:59	17:43	15:47
30	05:12	06:13	06:54 (B14)	07:15	08:18	08:22
	21:32	20:19	15 07:09 (B14)	18:56	17:41	15:46
31	05:14	06:15	06:59 (B14)	07:17	08:20	08:25
	21:30	20:17	4 07:03 (B14)	18:54	17:38	15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		921	257			
Sun reduction		0.50	0.43			
Oper. time red.		0.94	0.94			
Wind dir. red.		0.66	0.65			
Total reduction		0.31	0.26			
Total, real		284	67			

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	08:51 (B22) 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	08:23 (B22) 15:45
2	08:51 15:49	08:13 16:47	08:51 (B22) 17:50	07:08 19:55	06:46 20:58	05:30 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:22 (B22) 15:44
3	08:50 15:51	08:11 16:50	08:51 (B22) 17:52	07:06 19:57	06:43 21:00	05:28 21:55	04:34 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:22 (B22) 15:43
4	08:50 15:52	08:09 16:52	08:51 (B22) 17:54	07:03 19:59	06:41 21:02	05:26 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:21 (B22) 15:42
5	08:49 15:53	08:07 16:54	08:51 (B22) 17:56	07:01 19:59	06:38 20:01	05:23 21:04	04:32 21:58	05:23 22:07	06:25 21:20	07:25 18:43	07:31 16:27	08:22 (B22) 15:42
6	08:49 15:55	08:05 16:56	08:51 (B22) 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	08:21 (B22) 15:41
7	08:48 15:56	08:03 16:59	08:52 (B22) 18:01	06:55 20:06	06:33 21:08	05:19 22:00	04:36 22:05	05:27 21:15	06:29 20:01	07:30 18:38	07:36 16:23	08:21 (B22) 15:40
8	08:48 15:58	08:01 17:01	08:53 (B22) 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:37 22:04	05:29 21:13	06:31 20:06	07:32 18:35	07:38 16:21	08:22 (B22) 15:40
9	08:47 15:59	07:58 17:03	08:53 (B22) 18:05	06:50 20:10	06:28 21:12	05:15 22:02	04:38 22:03	05:31 21:11	06:33 20:06	07:34 18:32	07:40 16:19	08:22 (B22) 15:39
10	08:46 16:01	07:56 17:05	08:54 (B22) 18:07	06:47 20:12	06:25 21:14	05:13 22:03	04:39 22:02	05:33 21:09	06:35 20:06	07:36 18:30	07:42 16:17	08:23 (B22) 15:39
11	08:45 16:03	07:54 17:08	08:56 (B22) 18:09	06:45 20:14	06:22 21:16	05:11 22:04	04:41 22:01	05:35 21:06	06:37 20:06	07:38 18:27	07:44 16:15	08:23 (B22) 15:38
12	08:44 16:05	07:52 17:10	08:57 (B22) 18:11	06:42 20:16	06:20 21:18	05:08 22:05	04:42 22:00	05:37 21:04	06:39 20:06	07:40 18:25	07:46 16:13	08:23 (B22) 15:38
13	08:43 16:06	07:50 17:12	09:00 (B22) 18:13	06:40 20:18	06:17 21:20	05:06 22:06	04:43 21:59	05:39 21:02	06:41 20:06	07:42 18:22	07:49 16:11	08:25 (B22) 15:38
14	08:42 16:08	07:47 17:14	09:07 (B22) 18:15	06:37 20:20	06:15 21:22	05:05 22:07	04:45 21:58	05:41 20:59	06:43 20:01	07:44 18:20	07:51 16:09	08:26 (B22) 15:38
15	08:41 16:10	07:45 17:17	09:08 (B22) 18:18	06:34 20:22	06:12 21:24	05:03 22:07	04:46 21:57	05:43 20:57	06:45 20:06	07:46 18:17	07:53 16:08	08:29 (B22) 15:38
16	08:40 16:12	07:43 17:19	09:09 (B22) 18:20	06:32 20:24	06:09 21:26	05:01 22:08	04:48 21:55	05:45 20:54	06:47 20:06	07:48 18:14	07:55 16:06	08:31 (B22) 15:38
17	08:39 16:14	07:40 17:21	09:10 (B22) 18:22	06:29 20:26	06:07 21:27	04:59 22:09	04:49 21:54	05:47 20:52	06:49 20:06	07:50 18:12	07:57 16:04	08:32 (B22) 15:38
18	08:38 16:16	07:38 17:23	09:11 (B22) 18:24	06:26 20:28	06:04 21:29	04:57 22:09	04:51 21:53	05:49 20:50	06:51 20:06	07:52 18:09	07:59 16:02	08:33 (B22) 15:38
19	08:36 16:18	07:36 17:26	09:12 (B22) 18:26	06:24 20:31	06:02 21:31	04:55 22:09	04:52 21:51	05:51 20:47	06:53 20:06	07:55 18:07	08:01 16:01	08:34 (B22) 15:38
20	08:35 16:20	07:33 17:28	09:13 (B22) 18:28	06:21 20:33	05:59 21:33	04:53 22:10	04:54 21:50	05:53 20:45	06:55 20:06	07:57 18:04	08:03 15:59	08:35 (B22) 15:39
21	08:33 16:22	07:31 17:30	09:14 (B22) 18:30	06:18 20:35	05:57 21:35	04:52 22:10	04:56 21:48	05:55 20:42	06:57 20:06	07:59 18:02	08:05 15:58	08:36 (B22) 15:39
22	08:32 16:24	07:28 17:32	09:15 (B22) 18:32	06:16 20:37	05:54 21:37	04:50 22:10	04:57 21:46	05:57 20:40	06:59 20:06	08:01 17:59	08:07 15:56	08:37 (B22) 15:39
23	08:30 16:26	07:26 17:34	09:16 (B22) 18:34	06:13 20:39	05:52 21:38	04:48 22:10	04:59 21:45	05:59 20:37	07:01 20:06	08:03 17:57	08:09 15:55	08:38 (B22) 15:40
24	08:29 16:28	07:23 17:37	09:17 (B22) 18:36	06:10 20:41	05:49 21:40	04:47 22:10	05:01 21:43	06:01 20:35	07:03 20:06	08:05 17:55	08:11 15:53	08:39 (B22) 15:41
25	08:27 16:30	07:21 17:39	09:18 (B22) 18:38	06:08 20:43	05:47 21:42	04:45 22:10	05:03 21:41	06:03 20:32	07:05 20:06	08:07 17:52	08:13 15:52	08:40 (B22) 15:41
26	08:26 16:32	07:19 17:41	09:19 (B22) 18:39	06:05 20:44	05:44 21:43	04:44 22:10	05:05 21:39	06:05 20:30	07:07 20:06	08:09 17:50	08:15 15:51	08:41 (B22) 15:42
27	08:24 16:34	07:16 17:43	09:20 (B22) 18:40	06:02 20:45	05:42 21:44	04:42 22:10	05:06 21:38	06:07 20:27	07:09 20:06	08:11 17:47	08:17 15:49	08:42 (B22) 15:43
28	08:22 16:36	07:13 17:45	09:21 (B22) 18:41	06:00 20:46	05:40 21:45	04:41 22:10	05:08 21:36	06:09 20:24	07:11 20:06	08:13 17:44	08:19 15:48	08:43 (B22) 15:44
29	08:20 16:39	07:11 17:46	09:22 (B22) 18:42	06:00 20:47	05:37 21:46	04:40 22:10	05:10 21:34	06:11 20:22	07:13 20:06	08:15 17:43	08:21 15:47	08:44 (B22) 15:45
30	08:19 16:41	07:08 17:47	09:23 (B22) 18:43	06:00 20:48	05:35 21:47	04:38 22:10	05:12 21:32	06:13 20:19	07:15 20:06	08:17 17:41	08:23 (B22) 15:46	08:45 (B22) 15:46
31	08:17 16:43	07:06 17:48	09:24 (B22) 18:44	06:00 20:49	05:30 21:48	04:37 22:10	05:14 21:30	06:15 20:17	07:20 20:06	08:19 17:40	08:25 (B22) 15:47	08:46 (B22) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	95	259								38	319	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.94	0.94								0.94	0.94	
Wind dir. red.	0.60	0.60								0.60	0.60	
Total reduction	0.07	0.11								0.15	0.05	
Total, real	7	29								6	15	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51		13:29 (B22)	08:15		13:40 (B22)	07:11		06:49				05:32		04:36			
	15:48	40	14:09 (B22)	16:45	38	14:18 (B22)	17:47		19:53				20:55		21:53			
2	08:50		13:29 (B22)	08:13		13:41 (B22)	07:08		06:46				05:30		04:35			
	15:49	41	14:10 (B22)	16:47	36	14:17 (B22)	17:50		19:55				20:57		21:54			
3	08:50		13:29 (B22)	08:11		13:43 (B22)	07:06		06:43				05:28		04:34			
	15:51	41	14:10 (B22)	16:50	34	14:17 (B22)	17:52		19:57				20:59		21:55			
4	08:50		13:29 (B22)	08:09		13:44 (B22)	07:03		06:41				05:26		04:33			
	15:52	42	14:11 (B22)	16:52	32	14:16 (B22)	17:54		19:59				21:02		21:57			
5	08:49		13:30 (B22)	08:07		13:46 (B22)	07:00		06:38				05:23		04:32			
	15:53	42	14:12 (B22)	16:54	29	14:15 (B22)	17:56		20:01				21:04		21:58			
6	08:49		13:30 (B22)	08:05		13:48 (B22)	06:58		06:35				05:21		04:31			
	15:55	42	14:12 (B22)	16:56	24	14:12 (B22)	17:58		20:03				21:06		21:59			
7	08:48		13:30 (B22)	08:03		13:51 (B22)	06:55		06:33				05:19		04:30			
	15:56	43	14:13 (B22)	16:59	19	14:10 (B22)	18:00		20:05				21:08		22:00			
8	08:47		13:30 (B22)	08:00		13:56 (B22)	06:53		06:30				05:17		04:29			
	15:58	44	14:14 (B22)	17:01	10	14:06 (B22)	18:03		20:07				21:10		22:01			
9	08:47		13:30 (B22)	07:58			06:50		06:27				05:15		04:28			
	15:59	44	14:14 (B22)	17:03			18:05		20:10		3	06:53 (B4)	21:12		22:02			
10	08:46		13:30 (B22)	07:56			06:47		06:25				06:50 (B4)		05:13		04:28	
	16:01	45	14:15 (B22)	17:05			18:07		20:12		9	06:59 (B4)	21:14		22:03			
11	08:45		13:31 (B22)	07:54			06:45		06:22				06:48 (B4)		05:10		04:27	
	16:03	45	14:16 (B22)	17:08			18:09		20:14		14	07:02 (B4)	21:16		22:04			
12	08:44		13:30 (B22)	07:52			06:42		06:20				06:45 (B4)		05:08		04:27	
	16:04	46	14:16 (B22)	17:10			18:11		20:16		17	07:02 (B4)	21:18		22:05			
13	08:43		13:31 (B22)	07:49			06:39		06:17				06:43 (B4)		05:06		04:26	
	16:06	45	14:16 (B22)	17:12			18:13		20:18		20	07:03 (B4)	21:20		22:06			
14	08:42		13:31 (B22)	07:47			06:37		06:14				06:42 (B4)		05:04		04:26	
	16:08	46	14:17 (B22)	17:14			18:15		20:20		21	07:03 (B4)	21:22		22:07			
15	08:41		13:31 (B22)	07:45			06:34		06:12				06:42 (B4)		05:02		04:26	
	16:10	46	14:17 (B22)	17:17			18:17		20:22		22	07:04 (B4)	21:24		22:07			
16	08:40		13:32 (B22)	07:43			06:31		06:09				06:41 (B4)		05:01		04:25	
	16:12	46	14:18 (B22)	17:19			18:20		20:24		22	07:03 (B4)	21:25		22:08			
17	08:39		13:31 (B22)	07:40			06:29		06:07				06:41 (B4)		04:59		04:25	
	16:14	47	14:18 (B22)	17:21			18:22		20:26		23	07:04 (B4)	21:27		22:08			
18	08:37		13:32 (B22)	07:38			06:26		06:04				06:40 (B4)		04:57		04:25	
	16:16	47	14:19 (B22)	17:23			18:24		20:28		23	07:03 (B4)	21:29		22:09			
19	08:36		13:32 (B22)	07:35			06:23		06:02				06:41 (B4)		04:55		04:25	
	16:18	47	14:19 (B22)	17:25			18:26		20:30		21	07:02 (B4)	21:31		22:09			
20	08:35		13:33 (B22)	07:33			06:21		05:59				06:41 (B4)		04:53		04:25	
	16:20	47	14:20 (B22)	17:28			18:28		20:32		20	07:01 (B4)	21:33		22:10			
21	08:33		13:33 (B22)	07:31			06:18		05:57				06:42 (B4)		04:52		04:25	
	16:22	47	14:20 (B22)	17:30			18:30		20:35		19	07:01 (B4)	21:35		22:10			
22	08:32		13:33 (B22)	07:28			06:15		05:54				06:43 (B4)		04:50		04:25	
	16:24	47	14:20 (B22)	17:32			18:32		20:37		17	07:00 (B4)	21:36		22:10			
23	08:30		13:34 (B22)	07:26			06:13		05:52				06:43 (B4)		04:48		04:26	
	16:26	46	14:20 (B22)	17:34			18:34		20:39		14	06:57 (B4)	21:38		22:10			
24	08:29		13:34 (B22)	07:23			06:10		05:49				06:46 (B4)		04:47		04:26	
	16:28	46	14:20 (B22)	17:37			18:36		20:41		9	06:55 (B4)	21:40		22:10			
25	08:27		13:35 (B22)	07:21			06:07		05:47						04:45		04:26	
	16:30	46	14:21 (B22)	17:39			18:38		20:43						21:42		22:10	
26	08:25		13:36 (B22)	07:18			06:05		05:44						04:44		04:27	
	16:32	45	14:21 (B22)	17:41			18:40		20:45						21:43		22:10	
27	08:24		13:36 (B22)	07:16			06:02		05:42						04:42		04:27	
	16:34	44	14:20 (B22)	17:43			18:43		20:47						21:45		22:10	
28	08:22		13:37 (B22)	07:13			05:59		05:40						04:41		04:28	
	16:36	43	14:20 (B22)	17:45			18:45		20:49						21:47		22:10	
29	08:20		13:38 (B22)				06:57		05:37						04:39		04:28	
	16:39	42	14:20 (B22)				19:47		20:51						21:48		22:10	
30	08:18		13:39 (B22)				06:54		05:35						04:38		04:29	
	16:41	41	14:20 (B22)				19:49		20:53						21:50		22:09	
31	08:17		13:39 (B22)				06:51								04:37			
	16:43	39	14:18 (B22)				19:51								21:51			
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1372			222					274									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.94			0.94					0.94									
Wind dir. red.	0.65			0.65					0.66									
Total reduction	0.08			0.12					0.31									
Total, real	112			27					85									

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 (B4) 14 07:01 (B4)	07:17 18:54	07:23 16:36	08:24 15:45	13:13 (B22) 45 13:58 (B22)	
2	04:31 22:08	05:17 21:26	06:19 20:11	06:49 (B4) 9 06:58 (B4)	07:19 18:51	07:25 16:34	08:26 15:44	13:14 (B22) 44 13:58 (B22)	
3	04:32 22:08	05:19 21:24	06:21 20:09	06:51 (B4) 3 06:54 (B4)	07:21 18:48	07:27 16:31	13:24 (B22) 13:37 (B22)	08:28 15:43	13:13 (B22) 44 13:57 (B22)
4	04:33 22:07	05:21 21:22	06:23 20:06		07:23 18:46	07:29 16:29	13:20 (B22) 13:40 (B22)	08:29 15:42	13:14 (B22) 44 13:58 (B22)
5	04:34 22:07	05:23 21:19	06:25 20:03		07:25 18:43	07:31 16:27	13:17 (B22) 13:42 (B22)	08:31 15:42	13:15 (B22) 43 13:58 (B22)
6	04:35 22:06	05:25 21:17	06:27 20:01		07:27 18:40	07:33 16:25	13:16 (B22) 13:44 (B22)	08:32 15:41	13:16 (B22) 43 13:59 (B22)
7	04:36 22:05	05:27 21:15	06:29 19:58		07:29 18:38	07:36 16:23	13:14 (B22) 13:46 (B22)	08:34 15:40	13:16 (B22) 42 13:58 (B22)
8	04:37 22:04	05:29 21:13	06:31 19:55		07:32 18:35	07:38 16:21	13:13 (B22) 13:47 (B22)	08:35 15:40	13:17 (B22) 42 13:59 (B22)
9	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:32	07:40 16:19	13:12 (B22) 13:48 (B22)	08:37 15:39	13:17 (B22) 41 13:58 (B22)
10	04:39 22:02	05:33 21:08	06:35 19:50		07:36 18:30	07:42 16:17	13:11 (B22) 13:49 (B22)	08:38 15:39	13:18 (B22) 41 13:59 (B22)
11	04:41 22:01	05:35 21:06	06:37 19:47		07:38 18:27	07:44 16:15	13:10 (B22) 13:50 (B22)	08:39 15:38	13:19 (B22) 40 13:59 (B22)
12	04:42 22:00	05:37 21:04	06:39 19:45		07:40 18:25	07:46 16:13	13:09 (B22) 13:51 (B22)	08:40 15:38	13:20 (B22) 40 14:00 (B22)
13	04:43 21:59	05:39 21:01	06:41 19:42		07:42 18:22	07:49 16:11	13:10 (B22) 13:52 (B22)	08:42 15:38	13:20 (B22) 40 14:00 (B22)
14	04:45 21:58	05:41 20:59	06:43 19:39		07:44 18:19	07:51 16:09	13:09 (B22) 13:52 (B22)	08:43 15:38	13:21 (B22) 39 14:00 (B22)
15	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17	07:53 16:08	13:08 (B22) 13:52 (B22)	08:44 15:38	13:21 (B22) 39 14:00 (B22)
16	04:48 21:55	05:45 20:54	06:47 19:34		07:48 18:14	07:55 16:06	13:09 (B22) 13:54 (B22)	08:45 15:38	13:22 (B22) 39 14:01 (B22)
17	04:49 21:54	05:47 20:52	06:49 19:31		07:50 18:12	07:57 16:04	13:08 (B22) 13:54 (B22)	08:45 15:38	13:23 (B22) 38 14:01 (B22)
18	04:51 21:52	05:49 20:49	06:51 19:29		07:52 18:09	07:59 16:02	13:08 (B22) 13:54 (B22)	08:46 15:38	13:23 (B22) 39 14:02 (B22)
19	04:52 21:51	05:51 20:47	06:53 19:26	06:51 (B4) 10 07:01 (B4)	07:54 18:07	08:01 16:01	13:09 (B22) 13:55 (B22)	08:47 15:38	13:23 (B22) 38 14:01 (B22)
20	04:54 21:49	05:53 20:45	06:55 19:23	06:49 (B4) 14 07:03 (B4)	07:57 18:04	08:03 15:59	13:08 (B22) 13:55 (B22)	08:48 15:39	13:24 (B22) 38 14:02 (B22)
21	04:56 21:48	05:55 20:42	06:57 19:20	06:47 (B4) 17 07:04 (B4)	07:59 18:02	08:05 15:58	13:08 (B22) 13:55 (B22)	08:48 15:39	13:25 (B22) 38 14:03 (B22)
22	04:57 21:46	05:57 20:40	06:59 19:18	06:46 (B4) 19 07:05 (B4)	08:01 17:59	08:07 15:56	13:09 (B22) 13:56 (B22)	08:49 15:39	13:25 (B22) 38 14:03 (B22)
23	04:59 21:45	05:59 20:37	07:01 19:15	06:45 (B4) 21 07:06 (B4)	08:03 17:57	08:09 15:55	13:09 (B22) 13:56 (B22)	08:49 15:40	13:26 (B22) 38 14:04 (B22)
24	05:01 21:43	06:01 20:35	07:03 19:12	06:45 (B4) 21 07:06 (B4)	08:05 17:55	08:11 15:53	13:09 (B22) 13:56 (B22)	08:50 15:40	13:26 (B22) 38 14:04 (B22)
25	05:03 21:41	06:03 20:32	07:05 19:10	06:44 (B4) 22 07:06 (B4)	08:07 17:52	08:13 15:52	13:09 (B22) 13:56 (B22)	08:50 15:41	13:26 (B22) 38 14:04 (B22)
26	05:04 21:39	06:05 20:29	07:07 19:07	06:43 (B4) 22 07:05 (B4)	08:09 17:50	08:15 15:51	13:10 (B22) 13:56 (B22)	08:51 15:42	13:27 (B22) 38 14:05 (B22)
27	05:06 21:37	06:07 20:27	07:09 19:04	06:43 (B4) 22 07:05 (B4)	08:11 17:47	08:17 15:49	13:11 (B22) 13:57 (B22)	08:51 15:43	13:27 (B22) 38 14:05 (B22)
28	05:08 21:36	06:09 20:24	07:11 19:02	06:43 (B4) 22 07:05 (B4)	08:14 17:45	08:19 15:48	13:11 (B22) 13:57 (B22)	08:51 15:44	13:27 (B22) 39 14:06 (B22)
29	05:10 21:34	06:11 20:22	07:13 18:59	06:43 (B4) 21 07:04 (B4)	08:16 17:43	08:21 15:47	13:12 (B22) 13:57 (B22)	08:51 15:45	13:28 (B22) 39 14:07 (B22)
30	05:12 21:32	06:13 20:19	07:15 18:56	06:43 (B4) 20 07:03 (B4)	08:18 17:40	08:22 15:46	13:12 (B22) 13:58 (B22)	08:51 15:46	13:28 (B22) 40 14:08 (B22)
31	05:14 21:30	06:15 20:17	07:17 18:54	06:45 (B4) 17 07:02 (B4)	08:20 17:38			08:51 15:47	13:29 (B22) 40 14:09 (B22)
Potential sun hours	529	469	385		324	247		216	
Total, worst case		248	26			1131		1243	
Sun reduction		0.50	0.43			0.08		0.07	
Oper. time red.		0.94	0.94			0.94		0.94	
Wind dir. red.		0.66	0.66			0.65		0.65	
Total reduction		0.31	0.26			0.05		0.04	
Total, real		76	7			57		54	

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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
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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
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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
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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
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			07:20 16:38		08:51 15:46
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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 (B22) 20:55 (B22)
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	06:20 (B22) 20:58 (B22)
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	06:21 (B22) 21:00 (B22)
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:21 (B22) 21:02 (B22)
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	06:20 (B22) 21:04 (B22)
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:20 (B22) 21:06 (B22)
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:19 (B22) 21:08 (B22)
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:19 (B22) 21:10 (B22)
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:18 (B22) 21:12 (B22)
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	06:17 (B22) 21:14 (B22)
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:15 (B22) 21:16 (B22)
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:14 (B22) 21:18 (B22)
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:13 (B22) 21:20 (B22)
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:12 (B22) 21:22 (B22)
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:11 (B22) 21:24 (B22)
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:10 (B22) 21:25 (B22)
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:09 (B22) 21:27 (B22)
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:08 (B22) 21:29 (B22)
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	06:07 (B22) 21:31 (B22)
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	06:06 (B22) 21:33 (B22)
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:05 (B22) 21:35 (B22)
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	06:04 (B22) 21:37 (B22)
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	06:03 (B22) 21:38 (B22)
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:02 (B22) 21:40 (B22)
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	06:14 (B22) 06:15 (B22)	06:01 (B22) 21:42 (B22)
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	06:11 (B22) 06:16 (B22)	06:00 (B22) 21:43 (B22)
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:09 (B22) 06:18 (B22)	06:00 (B22) 21:45 (B22)
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	06:07 (B22) 06:19 (B22)	06:00 (B22) 21:47 (B22)
29	08:20 16:39		06:57 19:47	05:37 20:51	06:05 (B22) 06:20 (B22)	06:00 (B22) 21:48 (B22)
30	08:18 16:41		06:54 19:49	05:35 20:53	06:03 (B22) 06:21 (B22)	06:00 (B22) 21:50 (B22)
31	08:17 16:43		06:51 19:51	08:11 (B14) 08:21 (B14)	04:37 21:51	
Potential sun hours	235	266	366	426	508	528
Total, worst case			581	60	223	
Sun reduction			0.41	0.50	0.57	
Oper. time red.			0.94	0.94	0.94	
Wind dir. red.			0.63	0.66	0.66	
Total reduction			0.24	0.31	0.35	
Total, real			141	19	79	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	06:13 (B22) 20:14	07:17 18:54	07:50 (B14) 16:36	08:24 15:45
2	04:31 22:08	05:18 21:26	06:12 (B22) 20:11	07:19 18:51	07:51 (B14) 16:34	08:26 15:44
3	04:32 22:08	05:20 21:24	06:11 (B22) 20:09	07:21 18:48	07:54 (B14) 16:32	08:28 15:43
4	04:33 22:07	05:22 21:22	06:10 (B22) 20:06	07:23 18:46	08:06 (B14) 16:30	08:29 15:43
5	04:34 22:07	05:24 21:20	06:10 (B22) 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:08 (B22) 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:08 (B22) 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:08 (B22) 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:08 (B22) 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	04:40 22:02	05:33 21:08	06:08 (B22) 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 (B22) 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 (B22) 19:45	08:03 (B14) 18:25	07:40 16:13	08:40 15:38
13	04:44 21:59	05:39 21:02	06:11 (B22) 19:42	07:59 (B14) 18:22	07:42 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:13 (B22) 19:39	08:15 (B14) 18:20	07:44 16:10	08:43 15:38
15	04:46 21:57	05:43 20:57	06:15 (B22) 19:37	07:54 (B14) 18:17	07:46 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	06:17 (B22) 19:34	07:53 (B14) 18:15	07:48 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:19 (B22) 19:31	07:51 (B14) 18:12	07:50 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:23 (B22) 19:29	08:20 (B14) 18:09	18:12 16:03	08:46 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	08:21 (B14) 18:07	07:55 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:48 (B14) 18:04	07:57 15:59	08:48 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:48 (B14) 18:02	07:59 15:58	08:48 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	07:47 (B14) 18:00	08:01 15:56	08:49 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	07:47 (B14) 17:57	08:03 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	07:47 (B14) 17:55	08:05 15:53	08:51 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	07:47 (B14) 16:52	08:07 15:52	08:50 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	07:47 (B14) 16:50	08:09 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	07:47 (B14) 16:48	08:11 15:50	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	07:47 (B14) 16:45	08:13 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	07:48 (B14) 16:43	08:15 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	07:49 (B14) 16:41	08:17 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	529	5 06:17 (B22) 06:22 (B22)	469	385	324	247
Total, worst case	5		284	538	53	
Sun reduction	0.49		0.50	0.43	0.26	
Oper. time red.	0.94		0.94	0.94		
Wind dir. red.	0.66		0.66	0.63		
Total reduction	0.31		0.31	0.25	0.15	
Total, real	2		88	135	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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Varkali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (123)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	26	07:48 (B14) 08:14 (B14)	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	25	07:48 (B14) 08:13 (B14)	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 (B14) 08:11 (B14)	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	18	07:52 (B14) 08:10 (B14)	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 (B14) 08:08 (B14)	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 (B14) 08:05 (B14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	5	07:21 (B14) 07:26 (B14)	06:33 20:06	05:19 21:08	04:30 22:00	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	11	07:18 (B14) 07:29 (B14)	06:30 20:08	05:17 21:10	04:29 22:01	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	16	07:16 (B14) 07:32 (B14)	06:28 20:10	05:15 21:12	04:29 22:02	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	20	07:13 (B14) 07:33 (B14)	06:25 20:12	05:13 21:14	04:28 22:03	05:33 21:11	06:35 19:53		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 (B14) 07:33 (B14)	06:22 20:14	05:11 21:16	04:27 22:04	05:35 21:06	06:37 19:48		07:38 18:27			07:44 16:15	08:39 15:39
12	08:44 16:04	07:52 17:10	06:42 18:11	25	07:09 (B14) 07:34 (B14)	06:20 20:16	05:09 21:18	04:27 22:05	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	26	07:08 (B14) 07:34 (B14)	06:17 20:18	05:07 21:20	04:27 22:06	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	07:07 (B14) 07:34 (B14)	06:15 20:20	05:05 21:22	04:26 22:07	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	07:08 (B14) 07:35 (B14)	06:12 20:22	05:03 21:24	04:26 22:07	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	07:07 (B14) 07:34 (B14)	06:09 20:24	05:01 21:26	04:26 22:08	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	07:07 (B14) 07:33 (B14)	06:07 20:26	04:59 21:27	04:25 22:08	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	07:07 (B14) 07:32 (B14)	06:04 20:28	04:57 21:29	04:25 22:09	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	24	07:08 (B14) 07:32 (B14)	06:02 20:31	04:55 21:31	04:25 22:09	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	23	07:08 (B14) 07:31 (B14)	05:59 20:33	04:54 21:33	04:25 22:10	05:53 20:45	06:55 19:23	10	08:00 (B14) 08:10 (B14)			07:57 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	20	07:09 (B14) 07:29 (B14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 20:42	06:57 19:21	15	07:57 (B14) 08:12 (B14)			07:59 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	16	07:11 (B14) 07:27 (B14)	05:54 20:37	04:50 21:37	04:26 22:10	05:57 20:40	06:59 19:18	19	07:55 (B14) 08:14 (B14)			08:01 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	12	07:12 (B14) 07:24 (B14)	05:52 20:39	04:48 21:38	04:26 22:10	05:59 20:37	07:01 19:15	22	07:53 (B14) 08:15 (B14)			08:03 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	04:59 21:43	05:01 20:35	07:03 19:12	24	07:52 (B14) 08:16 (B14)			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	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	25	07:05 (B14) 08:16 (B14)			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	26	07:07 (B14) 08:16 (B14)			07:10 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	27	07:09 (B14) 08:16 (B14)			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	27	07:11 (B14) 08:16 (B14)			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 22:10	05:10 21:34	06:11 20:22	07:13 18:59	27	07:13 (B14) 08:15 (B14)			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	27	07:15 (B14) 08:15 (B14)			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			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			353							249		113				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.94							0.94		0.94				
Wind dir. red.			0.62							0.62		0.62				
Total reduction			0.24							0.25		0.15				
Total, real			85							62		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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 08:09 (B14)	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 (B14) 08:08 (B14)	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 (B14) 08:06 (B14)	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 (B14) 08:04 (B14)	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	7	07:54 (B14) 08:01 (B14)	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	3	07:21 (B14) 07:16 (B14)	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 (B14) 07:13 (B14)	20:10 20:25	21:12 21:13	22:02 22:03	21:11 21:11	19:53 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	15	07:28 (B14) 07:10 (B14)	20:12 20:22	21:14 21:14	22:03 22:02	21:08 21:08	19:50 19:50		07:38 18:30			07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	19	07:29 (B14) 07:06 (B14)	20:14 20:16	21:16 21:18	22:01 22:05	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 (B14) 07:05 (B14)	20:16 20:15	21:18 21:20	22:00 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 (B14) 07:05 (B14)	20:18 20:20	21:20 21:22	22:06 22:07	21:02 21:05	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 (B14) 07:05 (B14)	20:20 20:12	21:22 21:24	22:07 22:07	21:05 21:07	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	07:31 (B14) 07:04 (B14)	20:22 20:09	21:24 21:26	22:07 22:08	21:07 21:05	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	27	07:31 (B14) 07:03 (B14)	20:24 20:04	21:26 21:27	22:08 22:08	21:05 21:04	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	26	07:30 (B14) 07:04 (B14)	20:26 20:02	21:27 21:29	22:08 22:09	21:04 21:05	19:31 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	25	07:29 (B14) 07:04 (B14)	20:28 20:31	21:29 21:31	22:09 22:09	21:02 21:04	19:29 19:26		07:55 18:07	10	07:57 (B14) 08:07 (B14)	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	24	07:28 (B14) 07:04 (B14)	20:33 20:33	21:33 21:33	22:10 22:10	21:04 21:05	19:23 19:23		07:57 18:04	15	07:54 (B14) 08:09 (B14)	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	23	07:28 (B14) 07:04 (B14)	20:35 20:35	21:35 21:35	22:10 22:10	21:04 21:05	19:23 19:21		07:59 18:02	19	07:52 (B14) 08:11 (B14)	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	20	07:26 (B14) 07:06 (B14)	20:37 20:37	21:37 21:37	22:10 22:10	21:04 21:05	19:23 19:18		07:59 18:00	22	07:50 (B14) 08:12 (B14)	08:01 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	16	07:23 (B14) 07:07 (B14)	20:39 20:39	21:38 21:38	22:10 22:10	21:04 21:05	19:23 19:15		07:57 18:03	24	07:49 (B14) 08:13 (B14)	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	11	07:20 (B14) 07:09 (B14)	20:41 20:49	21:40 21:40	22:10 22:10	21:04 21:05	19:23 19:12		07:55 18:05	25	07:48 (B14) 08:13 (B14)	08:05 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 22:10	06:03 20:32	07:05 19:10		07:07 16:52	26	07:47 (B14) 08:13 (B14)	07:07 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	27	07:46 (B14) 08:13 (B14)	07:10 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		07:12 16:48	27	07:46 (B14) 08:13 (B14)	07:12 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	26	07:46 (B14) 08:12 (B14)	07:14 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47		05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59		07:16 16:43	25	07:46 (B14) 08:11 (B14)	07:16 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49		05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56		07:18 16:41	25	07:46 (B14) 08:11 (B14)	07:18 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		05:37 21:51	04:37 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 16:38		07:20 16:38			07:20 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case				343						271			78			
Sun reduction				0.41						0.43			0.26			
Oper. time red.				0.94						0.94			0.94			
Wind dir. red.				0.63						0.63			0.63			
Total reduction				0.24						0.25			0.15			
Total, real				83						68			12			

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March			April			May			June		
1	08:51	09:33 (B14)	08:15	09:39 (B14)	07:11		06:49		07:44 (B22)	05:33	04:36							
	15:48	14	09:47 (B14)	16:45	22	10:01 (B14)	17:48		19:53	20	08:04 (B22)	20:55						
2	08:50	09:34 (B14)	08:13	09:40 (B14)	07:08		06:46		07:45 (B22)	05:30	04:35							
	15:49	14	09:48 (B14)	16:48	20	10:00 (B14)	17:50		19:55	16	08:01 (B22)	20:58						
3	08:50	09:33 (B14)	08:11	09:42 (B14)	07:06		06:43		07:48 (B22)	05:28	04:34							
	15:51	16	09:49 (B14)	16:50	17	09:59 (B14)	17:52		19:57	11	07:59 (B22)	21:00						
4	08:50	09:32 (B14)	08:09	09:45 (B14)	07:03		06:41				05:26	04:33						
	15:52	18	09:50 (B14)	16:52	11	09:56 (B14)	17:54		19:59		21:02	21:57						
5	08:49	09:33 (B14)	08:07				07:01		06:38		05:23	04:32						
	15:53	19	09:52 (B14)	16:54			17:56		20:01		21:04	21:58						
6	08:49	09:32 (B14)	08:05				06:58		06:36		05:21	04:31						
	15:55	21	09:53 (B14)	16:56			17:58		20:03		21:06	21:59						
7	08:48	09:32 (B14)	08:03				06:55		06:33		05:19	04:30						
	15:56	21	09:53 (B14)	16:59			18:01		20:06		21:08	22:00						
8	08:48	09:32 (B14)	08:01				06:53		06:30		05:17	04:29						
	15:58	22	09:54 (B14)	17:01			18:03		20:08		21:10	22:01						
9	08:47	09:32 (B14)	07:58				06:50		06:28		05:15	04:29						
	16:00	23	09:55 (B14)	17:03			18:05		20:10		21:12	22:02						
10	08:46	09:32 (B14)	07:56				06:47		06:25		05:13	04:28						
	16:01	24	09:56 (B14)	17:05			18:07		20:12		21:14	22:03						
11	08:45	09:32 (B14)	07:54				06:45		06:22		05:11	04:27						
	16:03	25	09:57 (B14)	17:08			18:09		20:14		21:16	22:04						
12	08:44	09:32 (B14)	07:52				06:42		06:20		05:09	04:27						
	16:05	26	09:58 (B14)	17:10			18:11		20:16		21:18	22:05						
13	08:43	09:31 (B14)	07:50				06:40		06:17		05:07	04:26						
	16:06	28	09:59 (B14)	17:12			18:13		20:18		21:20	22:06						
14	08:42	09:31 (B14)	07:47				06:37		06:15		05:05	04:26						
	16:08	29	10:00 (B14)	17:14			18:15		20:20		21:22	22:07						
15	08:41	09:32 (B14)	07:45				06:34		06:12		05:03	04:26						
	16:10	29	10:01 (B14)	17:17			18:18		20:22		21:24	22:07						
16	08:40	09:31 (B14)	07:43				06:32		06:09		05:01	04:26						
	16:12	30	10:01 (B14)	17:19			18:20		20:24		21:26	22:08						
17	08:39	09:32 (B14)	07:40				06:29		06:58 (B22)	06:07	04:59	04:25						
	16:14	30	10:02 (B14)	17:21			18:22	1	06:59 (B22)	20:26	21:27	22:08						
18	08:38	09:32 (B14)	07:38				06:26		06:51 (B22)	06:04	04:57	04:25						
	16:16	30	10:02 (B14)	17:23			18:24	13	07:04 (B22)	20:28	21:29	22:09						
19	08:36	09:31 (B14)	07:36				06:24		06:49 (B22)	06:02	04:55	04:25						
	16:18	31	10:02 (B14)	17:26			18:26	18	07:07 (B22)	20:31	21:31	22:09						
20	08:35	09:32 (B14)	07:33				06:21		06:47 (B22)	05:59	04:53	04:25						
	16:20	31	10:03 (B14)	17:28			18:28	21	07:08 (B22)	20:33	21:33	22:10						
21	08:33	09:32 (B14)	07:31				06:18		06:45 (B22)	05:57	04:52	04:25						
	16:22	32	10:04 (B14)	17:30			18:30	24	07:09 (B22)	20:35	21:35	22:10						
22	08:32	09:32 (B14)	07:28				06:16		06:45 (B22)	05:54	04:50	04:26						
	16:24	32	10:04 (B14)	17:32			18:32	25	07:10 (B22)	20:37	21:37	22:10						
23	08:30	09:32 (B14)	07:26				06:13		06:44 (B22)	05:52	04:48	04:26						
	16:26	32	10:04 (B14)	17:34			18:34	26	07:10 (B22)	20:39	21:38	22:10						
24	08:29	09:33 (B14)	07:23				06:10		06:43 (B22)	05:49	04:47	04:26						
	16:28	32	10:05 (B14)	17:37			18:36	27	07:10 (B22)	20:41	21:40	22:10						
25	08:27	09:34 (B14)	07:21				06:08		06:43 (B22)	05:47	04:45	04:26						
	16:30	31	10:05 (B14)	17:39			18:38	27	07:10 (B22)	20:43	21:42	22:10						
26	08:26	09:34 (B14)	07:18				06:05		06:42 (B22)	05:44	04:44	04:27						
	16:32	31	10:05 (B14)	17:41			18:41	28	07:10 (B22)	20:45	21:43	22:10						
27	08:24	09:35 (B14)	07:16				06:02		06:42 (B22)	05:42	04:42	04:27						
	16:34	29	10:04 (B14)	17:43			18:43	27	07:09 (B22)	20:47	21:45	22:10						
28	08:22	09:35 (B14)	07:13				05:59		06:42 (B22)	05:40	04:41	04:28						
	16:37	29	10:04 (B14)	17:45			18:45	27	07:09 (B22)	20:49	21:47	22:10						
29	08:20	09:36 (B14)					06:57		07:42 (B22)	05:37	04:40	04:29						
	16:39	28	10:04 (B14)				19:47	26	08:08 (B22)	20:51	21:48	22:10						
30	08:19	09:37 (B14)					06:54		07:42 (B22)	05:35	04:38	04:29						
	16:41	26	10:03 (B14)				19:49	25	08:07 (B22)	20:53	21:50	22:09						
31	08:17	09:38 (B14)					06:51		07:43 (B22)		04:37							
	16:43	25	10:03 (B14)				19:51	23	08:06 (B22)		21:51							
Potential sun hours	235		266				366		426		508	529						
Total, worst case	808		70				338		47									
Sun reduction	0.13		0.20				0.41		0.50									
Oper. time red.	0.94		0.94				0.94		0.94									
Wind dir. red.	0.61		0.61				0.64		0.64									
Total reduction	0.07		0.11				0.24		0.30									
Total, real	60		8				83		14									

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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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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
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
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:58 18:02	08:05 15:58	08:49 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:00 18:00	08:07 15:56	08:49 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:13 17:52	08:19 15:52	08:50 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:15 17:50	08:21 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:17 17:48	08:23 15:49	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:19 17:46	08:25 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:21 17:43	08:27 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:23 17:41	08:29 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17		08:25 17:38	08:31 15:45	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			391		662	302
Sun reduction			0.43		0.08	0.07
Oper. time red.			0.94		0.94	0.94
Wind dir. red.			0.64		0.61	0.61
Total reduction			0.25		0.05	0.04
Total, real			99		31	12

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:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Vetras - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (161)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	07:14 (B24) 07:29 (B24)	05:33 20:55
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	07:11 (B24) 07:30 (B24)	05:30 20:57
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	07:10 (B24) 07:31 (B24)	05:28 21:00
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:09 (B24) 07:31 (B24)	05:26 21:02
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	07:08 (B24) 07:31 (B24)	05:24 21:04
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	07:08 (B24) 07:31 (B24)	05:21 21:06
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	07:07 (B24) 07:30 (B24)	05:19 21:08
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	07:08 (B24) 07:30 (B24)	05:17 21:10
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	07:07 (B24) 07:29 (B24)	05:15 21:12
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	07:07 (B24) 07:28 (B24)	05:13 21:14
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	07:09 (B24) 07:27 (B24)	05:11 21:16
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	07:09 (B24) 07:25 (B24)	05:09 21:18
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	07:11 (B24) 07:23 (B24)	05:07 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	07:15 (B24) 07:18 (B24)	05:05 21:22
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	05:03 21:26
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	05:01 21:27
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	05:01 21:29
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	05:00 21:31
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	05:00 21:33
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	05:00 21:35
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	05:00 21:37
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	05:00 21:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	05:00 21:41
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	05:00 21:43
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	04:45 21:42	05:00 21:45
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	05:00 21:47
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	05:00 21:49
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	05:00 21:51
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	05:00 21:53
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:50	05:00 21:55
31	08:17 16:43		06:51 19:51	05:33 20:55	04:37 21:51	05:00 21:57
Potential sun hours	235	266	366	426	508	528
Total, worst case			16	260	919	939
Sun reduction			0.41	0.50	0.57	0.56
Oper. time red.			0.94	0.94	0.94	0.94
Wind dir. red.			0.66	0.66	0.67	0.67
Total reduction			0.25	0.31	0.36	0.35
Total, real			4	81	328	330

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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

July			August			September			October			November			December		
1	04:30	06:01 (B14)	05:16	06:04 (B14)	06:17	07:08 (B24)	07:17	07:23	08:24								
	22:09	32	06:33 (B14)	21:28	33	06:37 (B14)	20:14	18	07:26 (B24)	18:54	16:36	15:45					
2	04:31	06:00 (B14)	05:18	06:04 (B14)	06:19	07:06 (B24)	07:19	07:25	08:26								
	22:08	32	06:32 (B14)	21:26	31	06:35 (B14)	20:11	21	07:27 (B24)	18:51	16:34	15:44					
3	04:32	06:01 (B14)	05:20	06:05 (B14)	06:21	07:05 (B24)	07:21	07:27	08:28								
	22:08	32	06:33 (B14)	21:24	29	06:34 (B14)	20:09	22	07:27 (B24)	18:48	16:32	15:43					
4	04:33	06:01 (B14)	05:22	06:06 (B14)	06:23	07:05 (B24)	07:23	07:29	08:29								
	22:07	32	06:33 (B14)	21:22	27	06:33 (B14)	20:06	22	07:27 (B24)	18:46	16:30	15:43					
5	04:34	06:01 (B14)	05:24	06:08 (B14)	06:25	07:04 (B24)	07:25	07:31	08:31								
	22:07	33	06:34 (B14)	21:19	24	06:32 (B14)	20:03	23	07:27 (B24)	18:43	16:27	15:42					
6	04:35	06:01 (B14)	05:25	06:08 (B14)	06:27	07:04 (B24)	07:28	07:33	08:32								
	22:06	33	06:34 (B14)	21:17	22	06:30 (B14)	20:01	23	07:27 (B24)	18:40	16:25	15:41					
7	04:36	06:01 (B14)	05:27	06:10 (B14)	06:29	07:03 (B24)	07:30	07:36	08:34								
	22:05	34	06:35 (B14)	21:15	18	06:28 (B14)	19:58	23	07:26 (B24)	18:38	16:23	15:40					
8	04:37	06:00 (B14)	05:29	06:13 (B14)	06:31	07:03 (B24)	07:32	07:38	08:35								
	22:04	35	06:35 (B14)	21:13	12	06:25 (B14)	19:55	22	07:25 (B24)	18:35	16:21	15:40					
9	04:38	06:00 (B14)	05:31		06:33	07:03 (B24)	07:34	07:40	08:37								
	22:03	35	06:35 (B14)	21:11	19:53	21	07:24 (B24)	18:33	16:19	15:39							
10	04:40	06:00 (B14)	05:33		06:35	07:04 (B24)	07:36	07:42	08:38								
	22:02	36	06:36 (B14)	21:08	19:50	19	07:23 (B24)	18:30	16:17	15:39							
11	04:41	06:01 (B14)	05:35		06:37	07:06 (B24)	07:38	07:44	08:39								
	22:01	36	06:37 (B14)	21:06	19:47	16	07:22 (B24)	18:27	16:15	15:39							
12	04:42	06:00 (B14)	05:37		06:39	07:08 (B24)	07:40	07:46	08:40								
	22:00	37	06:37 (B14)	21:04	19:45	12	07:20 (B24)	18:25	16:13	15:38							
13	04:44	06:00 (B14)	05:39		06:41	07:10 (B24)	07:42	07:49	08:41								
	21:59	37	06:37 (B14)	21:02	19:42	7	07:17 (B24)	18:22	16:11	15:38							
14	04:45	06:00 (B14)	05:41		06:43		07:44	07:51	08:43								
	21:58	37	06:37 (B14)	20:59	19:39		18:20	16:10	15:38								
15	04:46	06:00 (B14)	05:43		06:45		07:46	07:53	08:44								
	21:57	38	06:38 (B14)	20:57	19:37		18:17	16:08	15:38								
16	04:48	06:00 (B14)	05:45		06:47		07:48	07:55	08:45								
	21:55	38	06:38 (B14)	20:54	19:34		18:15	16:06	15:38								
17	04:49	06:00 (B14)	05:47		06:49		07:50	07:57	08:45								
	21:54	38	06:38 (B14)	20:52	19:31		18:12	16:04	15:38								
18	04:51	06:00 (B14)	05:49		06:51		07:52	07:59	08:46								
	21:52	39	06:39 (B14)	20:50	19:29		18:09	16:03	15:38								
19	04:53	06:00 (B14)	05:51		06:53		07:55	08:01	08:47								
	21:51	38	06:38 (B14)	20:47	19:26		18:07	16:01	15:38								
20	04:54	06:00 (B14)	05:53		06:55		07:57	08:03	08:48								
	21:49	39	06:39 (B14)	20:45	19:23		18:04	15:59	15:39								
21	04:56	06:00 (B14)	05:55		06:57		07:59	08:05	08:48								
	21:48	39	06:39 (B14)	20:42	19:21		18:02	15:58	15:39								
22	04:58	06:00 (B14)	05:57		06:59		08:01	08:07	08:49								
	21:46	39	06:39 (B14)	20:40	19:18		18:00	15:56	15:40								
23	04:59	06:00 (B14)	05:59		07:01		08:03	08:09	08:49								
	21:45	39	06:39 (B14)	20:37	19:15		17:57	15:55	15:40								
24	05:01	06:01 (B14)	06:01		07:03		08:05	08:11	08:50								
	21:43	38	06:39 (B14)	20:35	19:12		17:55	15:53	15:41								
25	05:03	06:01 (B14)	06:03		07:05		07:07	08:13	08:50								
	21:41	38	06:39 (B14)	20:32	19:10		16:52	15:52	15:41								
26	05:05	06:01 (B14)	06:05		07:07		07:10	08:15	08:51								
	21:39	37	06:38 (B14)	20:30	19:07		16:50	15:51	15:42								
27	05:06	06:01 (B14)	06:07		07:09		07:12	08:17	08:51								
	21:37	38	06:39 (B14)	20:27	19:04		16:48	15:50	15:43								
28	05:08	06:02 (B14)	06:09		07:11		07:14	08:19	08:51								
	21:36	37	06:39 (B14)	20:24	19:02		16:45	15:48	15:44								
29	05:10	06:02 (B14)	06:11	07:15 (B24)	07:13		07:16	08:21	08:51								
	21:34	35	06:37 (B14)	20:22	5	07:20 (B24)	18:59	16:43	15:47	15:45							
30	05:12	06:02 (B14)	06:13	07:11 (B24)	07:15		07:18	08:22	08:51								
	21:32	35	06:37 (B14)	20:19	12	07:23 (B24)	18:56	16:41	15:46	15:46							
31	05:14	06:03 (B14)	06:15	07:09 (B24)			07:20		08:51								
	21:30	34	06:37 (B14)	20:17	16	07:25 (B24)		16:38	15:47	15:47							
Potential sun hours	529		469		385		324		248		216						
Total, worst case	1120		229		249												
Sun reduction	0.49		0.50		0.43												
Oper. time red.	0.94		0.94		0.94												
Wind dir. red.	0.67		0.67		0.66												
Total reduction	0.31		0.31		0.26												
Total, real	347		72		66												

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

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LV-1010 Riga

0037167242411

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Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	07:33 (B24) 20:55	06:25 (B14) 21:52
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	07:34 (B24) 20:57	06:25 (B14) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	07:35 (B24) 21:00	06:24 (B14) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:37 (B24) 21:02	06:24 (B14) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	07:47 (B24) 21:04	06:24 (B14) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:24 (B14) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:24 (B14) 22:00
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:24 (B14) 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 (B14) 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 (B14) 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 (B14) 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:25 (B14) 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 (B14) 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 (B14) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:27 (B14) 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 (B14) 22:09
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:29 (B14) 22:10
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:30 (B14) 22:11
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	06:31 (B14) 22:12
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	06:39 (B14) 21:33	06:32 (B14) 22:13
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:57 (B14) 21:35	06:34 (B14) 22:14
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:59 (B14) 21:37	06:35 (B14) 22:15
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	07:01 (B14) 21:39	06:37 (B14) 22:16
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:32 (B14) 21:41	06:39 (B14) 22:17
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	07:03 (B14) 21:43	06:40 (B14) 22:18
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	07:04 (B14) 21:45	06:41 (B14) 22:19
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	07:05 (B14) 21:47	06:42 (B14) 22:20
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	06:27 (B14) 21:49	06:43 (B14) 22:21
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	06:26 (B14) 21:51	06:44 (B14) 22:22
30	08:18 16:41	07:09 17:49	05:54 18:49	05:35 20:53	07:06 (B14) 21:53	06:45 (B14) 22:23
31	08:17 16:43	07:08 17:51	05:53 18:51	05:34 20:54	07:07 (B14) 21:54	06:46 (B14) 22:24
Potential sun hours	235	266	366	426	508	528
Total, worst case			219	429	794	
Sun reduction			0.41	0.50	0.57	
Oper. time red.			0.94	0.94	0.94	
Wind dir. red.			0.65	0.65	0.65	
Total reduction			0.25	0.31	0.35	
Total, real			55	132	277	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

July		August		September		October	November	December
1	04:30	05:16	06:35 (B14)	06:17		07:17	07:23	08:24
	22:09	21:28	38 07:13 (B14)	20:14		18:54	16:36	15:45
2	04:31	05:18	06:35 (B14)	06:19		07:19	07:25	08:26
	22:08	21:26	39 07:14 (B14)	20:11		18:51	16:34	15:44
3	04:32	05:20	06:35 (B14)	06:21		07:21	07:27	08:28
	22:08	21:24	39 07:14 (B14)	20:09		18:48	16:32	15:43
4	04:33	05:22	06:35 (B14)	06:23		07:23	07:29	08:29
	22:07	21:22	40 07:15 (B14)	20:06		18:46	16:30	15:43
5	04:34	05:24	06:35 (B14)	06:25		07:25	07:31	08:31
	22:07	21:19	40 07:15 (B14)	20:03		18:43	16:27	15:42
6	04:35	05:25	06:34 (B14)	06:27		07:28	07:33	08:32
	22:06	21:17	41 07:15 (B14)	20:01		18:40	16:25	15:41
7	04:36	05:27	06:34 (B14)	06:29		07:30	07:36	08:34
	22:05	21:15	41 07:15 (B14)	19:58		18:38	16:23	15:40
8	04:37	05:29	06:34 (B14)	06:31	8 07:32 (B24)	07:32	07:38	08:35
	22:04	21:13	41 07:15 (B14)	19:55	8 07:40 (B24)	18:35	16:21	15:40
9	04:38	05:31	06:34 (B14)	06:33	14 07:29 (B24)	07:34	07:40	08:37
	22:03	21:11	41 07:15 (B14)	19:53	14 07:43 (B24)	18:33	16:19	15:39
10	04:40	05:33	06:34 (B14)	06:35	17 07:27 (B24)	07:36	07:42	08:38
	22:02	21:08	41 07:15 (B14)	19:50	17 07:44 (B24)	18:30	16:17	15:39
11	04:41	05:35	06:34 (B14)	06:37	20 07:25 (B24)	07:38	07:44	08:39
	22:01	21:06	41 07:15 (B14)	19:47	20 07:45 (B24)	18:27	16:15	15:39
12	04:42	05:37	06:33 (B14)	06:39	22 07:24 (B24)	07:40	07:46	08:40
	22:00	21:04	41 07:14 (B14)	19:45	22 07:46 (B24)	18:25	16:13	15:38
13	04:44	05:39	06:34 (B14)	06:41	23 07:23 (B24)	07:42	07:49	08:42
	21:59	21:02	40 07:14 (B14)	19:42	23 07:46 (B24)	18:22	16:11	15:38
14	04:45	05:41	06:34 (B14)	06:43	24 07:23 (B24)	07:44	07:51	08:43
	21:58	20:59	39 07:13 (B14)	19:39	23 07:46 (B24)	18:20	16:10	15:38
15	04:46	05:43	06:34 (B14)	06:45	24 07:22 (B24)	07:46	07:53	08:44
	21:57	20:57	39 07:13 (B14)	19:37	24 07:46 (B24)	18:17	16:08	15:38
16	04:48	05:45	06:35 (B14)	06:47	24 07:22 (B24)	07:48	07:55	08:45
	21:55	20:54	37 07:12 (B14)	19:34	24 07:46 (B24)	18:15	16:06	15:38
17	04:49	05:47	06:36 (B14)	06:49	23 07:22 (B24)	07:50	07:57	08:45
	21:54	20:52	35 07:11 (B14)	19:31	23 07:45 (B24)	18:12	16:04	15:38
18	04:51	05:49	06:36 (B14)	06:51	22 07:22 (B24)	07:52	07:59	08:46
	21:52	20:50	34 07:10 (B14)	19:29	22 07:44 (B24)	18:09	16:03	15:38
19	04:53	05:51	06:36 (B14)	06:53	20 07:23 (B24)	07:55	08:01	08:47
	21:51	5 06:56 (B14)	20:47	32 07:08 (B14)	20 07:43 (B24)	18:07	16:01	15:38
20	04:54	06:48 (B14)	05:53	06:55	18 07:24 (B24)	07:57	08:03	08:48
	21:49	12 07:00 (B14)	20:45	30 07:07 (B14)	18 07:42 (B24)	18:04	15:59	15:39
21	04:56	06:46 (B14)	05:55	06:57	14 07:26 (B24)	07:59	08:05	08:48
	21:48	16 07:02 (B14)	20:42	26 07:05 (B14)	14 07:40 (B24)	18:02	15:58	15:39
22	04:58	06:44 (B14)	05:57	06:59	9 07:28 (B24)	08:01	08:07	08:49
	21:46	20 07:04 (B14)	20:40	22 07:03 (B14)	9 07:37 (B24)	18:00	15:56	15:40
23	04:59	06:43 (B14)	05:59	07:01		08:03	08:09	08:49
	21:45	22 07:05 (B14)	20:37	17 07:00 (B14)		17:57	15:55	15:40
24	05:01	06:42 (B14)	06:01	07:03		08:05	08:11	08:50
	21:43	25 07:07 (B14)	20:35	9 06:56 (B14)		17:55	15:53	15:41
25	05:03	06:41 (B14)	06:03	07:05		07:07	08:13	08:50
	21:41	27 07:08 (B14)	20:32			16:52	15:52	15:41
26	05:05	06:40 (B14)	06:05	07:07		07:10	08:15	08:51
	21:39	29 07:09 (B14)	20:30	19:07		16:50	15:51	15:42
27	05:06	06:39 (B14)	06:07	07:09		07:12	08:17	08:51
	21:37	31 07:10 (B14)	20:27	19:04		16:48	15:50	15:43
28	05:08	06:39 (B14)	06:09	07:11		07:14	08:19	08:51
	21:36	32 07:11 (B14)	20:24	19:02		16:45	15:48	15:44
29	05:10	06:37 (B14)	06:11	07:13		07:16	08:21	08:51
	21:34	34 07:11 (B14)	20:22	18:59		16:43	15:47	15:45
30	05:12	06:37 (B14)	06:13	07:15		07:18	08:22	08:51
	21:32	35 07:12 (B14)	20:19	18:56		16:41	15:46	15:46
31	05:14	06:37 (B14)	06:15			07:20		08:51
	21:30	36 07:13 (B14)	20:17			16:38		15:47
Potential sun hours	529		469	385		324	247	216
Total, worst case	324		843	281				
Sun reduction	0.49		0.50	0.43				
Oper. time red.	0.94		0.94	0.94				
Wind dir. red.	0.65		0.65	0.65				
Total reduction	0.30		0.31	0.26				
Total, real	98		258	73				

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March	April	May	June		
1	08:51		10:05 (B22)	08:15		10:10 (B22)	07:11	06:49	05:32			04:36
	15:48	29	10:34 (B22)	16:45	39	10:49 (B22)	17:48	19:53	20:55			21:53
2	08:50		10:06 (B22)	08:13		10:11 (B22)	07:08	06:46	05:30		05:58 (B1)	04:35
	15:49	29	10:35 (B22)	16:47	38	10:49 (B22)	17:50	19:55	20:57	5	06:03 (B1)	21:54
3	08:50		10:05 (B22)	08:11		10:12 (B22)	07:06	06:43	05:28		05:56 (B1)	04:34
	15:51	31	10:36 (B22)	16:50	36	10:48 (B22)	17:52	19:57	21:00	9	06:05 (B1)	21:55
4	08:50		10:05 (B22)	08:09		10:13 (B22)	07:03	06:41	05:26		05:54 (B1)	04:33
	15:52	31	10:36 (B22)	16:52	35	10:48 (B22)	17:54	19:59	21:02	13	06:07 (B1)	21:57
5	08:49		10:06 (B22)	08:07		10:14 (B22)	07:00	06:38	05:23		05:52 (B1)	04:32
	15:53	32	10:38 (B22)	16:54	33	10:47 (B22)	17:56	20:01	21:04	16	06:08 (B1)	21:58
6	08:49		10:06 (B22)	08:05		10:15 (B22)	06:58	06:35	05:21		05:50 (B1)	04:31
	15:55	33	10:39 (B22)	16:56	30	10:45 (B22)	17:58	20:03	21:06	19	06:09 (B1)	21:59
7	08:48		10:05 (B22)	08:03		10:17 (B22)	06:55	06:33	05:19		05:49 (B1)	04:30
	15:56	34	10:39 (B22)	16:59	27	10:44 (B22)	18:00	20:05	21:08	20	06:09 (B1)	22:00
8	08:48		10:05 (B22)	08:01		10:19 (B22)	06:53	06:30	05:17		05:48 (B1)	04:29
	15:58	35	10:40 (B22)	17:01	24	10:43 (B22)	18:03	20:08	21:10	22	06:10 (B1)	22:01
9	08:47		10:05 (B22)	07:58		10:21 (B22)	06:50	06:28	05:15		05:48 (B1)	04:28
	15:59	36	10:41 (B22)	17:03	19	10:40 (B22)	18:05	20:10	21:12	22	06:10 (B1)	22:02
10	08:46		10:05 (B22)	07:56		10:25 (B22)	06:47	06:25	05:13		05:48 (B1)	04:28
	16:01	37	10:42 (B22)	17:05	11	10:36 (B22)	18:07	20:12	21:14	22	06:10 (B1)	22:03
11	08:45		10:06 (B22)	07:54			06:45	06:22	05:11		05:47 (B1)	04:27
	16:03	37	10:43 (B22)	17:08			18:09	20:14	21:16	23	06:10 (B1)	22:04
12	08:44		10:06 (B22)	07:52			06:42	06:20	05:08		05:47 (B1)	04:27
	16:04	38	10:44 (B22)	17:10			18:11	20:16	21:18	23	06:10 (B1)	22:05
13	08:43		10:05 (B22)	07:49			06:40	06:17	05:06		05:47 (B1)	04:26
	16:06	39	10:44 (B22)	17:12			18:13	20:18	21:20	22	06:09 (B1)	22:06
14	08:42		10:05 (B22)	07:47			06:37	06:14	05:04		05:48 (B1)	04:26
	16:08	40	10:45 (B22)	17:14			18:15	20:20	21:22	22	06:10 (B1)	22:07
15	08:41		10:05 (B22)	07:45			06:34	06:12	05:03		05:48 (B1)	04:26
	16:10	40	10:45 (B22)	17:17			18:18	20:22	21:24	21	06:09 (B1)	22:07
16	08:40		10:05 (B22)	07:43			06:32	06:09	05:01		05:48 (B1)	04:25
	16:12	41	10:46 (B22)	17:19			18:20	20:24	21:25	20	06:08 (B1)	22:08
17	08:39		10:06 (B22)	07:40			06:29	06:07	04:59		05:50 (B1)	04:25
	16:14	41	10:47 (B22)	17:21			18:22	20:26	21:27	19	06:09 (B1)	22:08
18	08:37		10:06 (B22)	07:38			06:26	06:04	04:57		05:50 (B1)	04:25
	16:16	41	10:47 (B22)	17:23			18:24	20:28	21:29	18	06:08 (B1)	22:09
19	08:36		10:05 (B22)	07:35			06:24	06:02	04:55		05:50 (B1)	04:25
	16:18	43	10:48 (B22)	17:26			18:26	20:30	21:31	16	06:06 (B1)	22:09
20	08:35		10:06 (B22)	07:33			06:21	05:59	04:53		05:52 (B1)	04:25
	16:20	43	10:49 (B22)	17:28			18:28	20:33	21:33	14	06:06 (B1)	22:10
21	08:33		10:06 (B22)	07:31			06:18	05:57	04:52		05:53 (B1)	04:25
	16:22	43	10:49 (B22)	17:30			18:30	20:35	21:35	11	06:04 (B1)	22:10
22	08:32		10:06 (B22)	07:28			06:16	05:54	04:50		05:55 (B1)	04:25
	16:24	43	10:49 (B22)	17:32			18:32	20:37	21:37	8	06:03 (B1)	22:10
23	08:30		10:06 (B22)	07:26			06:13	05:52	04:48			04:26
	16:26	43	10:49 (B22)	17:34			18:34	20:39	21:38			22:10
24	08:29		10:07 (B22)	07:23			06:10	05:49	04:47			04:26
	16:28	43	10:50 (B22)	17:37			18:36	20:41	21:40			22:10
25	08:27		10:07 (B22)	07:21			06:07	05:47	04:45			04:26
	16:30	44	10:51 (B22)	17:39			18:38	20:43	21:42			22:10
26	08:26		10:07 (B22)	07:18			06:05	05:44	04:44			04:27
	16:32	44	10:51 (B22)	17:41			18:41	20:45	21:43			22:10
27	08:24		10:08 (B22)	07:16			06:02	05:42	04:42			04:27
	16:34	43	10:51 (B22)	17:43			18:43	20:47	21:45			22:10
28	08:22		10:08 (B22)	07:13			05:59	05:40	04:41			04:28
	16:36	43	10:51 (B22)	17:45			18:45	20:49	21:47			22:10
29	08:20		10:09 (B22)				06:57	05:37	04:40			04:29
	16:39	42	10:51 (B22)				19:47	20:51	21:48			22:10
30	08:18		10:09 (B22)				06:54	05:35	04:38			04:29
	16:41	42	10:51 (B22)				19:49	20:53	21:50			22:09
31	08:17		10:10 (B22)				06:51		04:37			
	16:43	40	10:50 (B22)				19:51		21:51			
Potential sun hours	235			266			366	426	508			529
Total, worst case	1200			292					365			
Sun reduction	0.13			0.20					0.57			
Oper. time red.	0.94			0.94					0.94			
Wind dir. red.	0.61			0.61					0.67			
Total reduction	0.07			0.11					0.35			
Total, real	90			33					127			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July			August			September		October		November		December		
1	04:30			05:16		05:58 (B1)	06:17	07:17	07:23		09:53 (B22)	08:24		09:48 (B22)	
	22:09			21:28	22	06:20 (B1)	20:14	18:54	16:36	14	10:07 (B22)	15:45	37	10:25 (B22)	
2	04:31			05:18		05:58 (B1)	06:19	07:19	07:25		09:50 (B22)	08:26		09:49 (B22)	
	22:09			21:26	22	06:20 (B1)	20:11	18:51	16:34	20	10:10 (B22)	15:44	36	10:25 (B22)	
3	04:32			05:19		05:58 (B1)	06:21	07:21	07:27		09:48 (B22)	08:28		09:48 (B22)	
	22:08			21:24	22	06:20 (B1)	20:09	18:48	16:32	25	10:13 (B22)	15:43	36	10:24 (B22)	
4	04:33			05:21		05:58 (B1)	06:23	07:23	07:29		09:46 (B22)	08:29		09:49 (B22)	
	22:07			21:22	22	06:20 (B1)	20:06	18:46	16:29	28	10:14 (B22)	15:42	35	10:24 (B22)	
5	04:34			05:23		05:58 (B1)	06:25	07:25	07:31		09:44 (B22)	08:31		09:51 (B22)	
	22:07			21:20	21	06:19 (B1)	20:03	18:43	16:27	31	10:15 (B22)	15:42	34	10:25 (B22)	
6	04:35			05:25		05:59 (B1)	06:27	07:27	07:33		09:44 (B22)	08:32		09:52 (B22)	
	22:06			21:17	20	06:19 (B1)	20:01	18:40	16:25	33	10:17 (B22)	15:41	33	10:25 (B22)	
7	04:36			05:27		06:00 (B1)	06:29	07:30	07:36		09:43 (B22)	08:34		09:52 (B22)	
	22:05			21:15	18	06:18 (B1)	19:58	18:38	16:23	35	10:18 (B22)	15:40	32	10:24 (B22)	
8	04:37			05:29		06:02 (B1)	06:31	07:32	07:38		09:42 (B22)	08:35		09:53 (B22)	
	22:04			21:13	15	06:17 (B1)	19:55	18:35	16:21	37	10:19 (B22)	15:40	32	10:25 (B22)	
9	04:38			05:31		06:04 (B1)	06:33	07:34	07:40		09:41 (B22)	08:37		09:53 (B22)	
	22:03			21:11	12	06:16 (B1)	19:53	18:32	16:19	39	10:20 (B22)	15:39	31	10:24 (B22)	
10	04:39			05:33		06:06 (B1)	06:35	07:36	07:42		09:42 (B22)	08:38		09:55 (B22)	
	22:02			21:08	8	06:14 (B1)	19:50	18:30	16:17	39	10:21 (B22)	15:39	30	10:25 (B22)	
11	04:41			05:35		06:07 (B1)	06:37	07:38	07:44		09:41 (B22)	08:39		09:55 (B22)	
	22:01			21:06	3	06:10 (B1)	19:47	18:27	16:15	40	10:21 (B22)	15:38	29	10:24 (B22)	
12	04:42			05:37			06:39	07:40	07:46		09:40 (B22)	08:40		09:57 (B22)	
	22:00			21:04			19:45	18:25	16:13	41	10:21 (B22)	15:38	28	10:25 (B22)	
13	04:43			05:39			06:41	07:42	07:49		09:41 (B22)	08:42		09:57 (B22)	
	21:59			21:02			19:42	18:22	16:11	42	10:23 (B22)	15:38	28	10:25 (B22)	
14	04:45			05:41			06:43	07:44	07:51		09:40 (B22)	08:43		09:58 (B22)	
	21:58			20:59			19:39	18:19	16:09	43	10:23 (B22)	15:38	27	10:25 (B22)	
15	04:46			05:43			06:45	07:46	07:53		09:40 (B22)	08:44		09:59 (B22)	
	21:57			20:57			19:37	18:17	16:08	43	10:23 (B22)	15:38	26	10:25 (B22)	
16	04:48			05:45			06:47	07:48	07:55		09:40 (B22)	08:45		10:00 (B22)	
	21:55			20:54			19:34	18:14	16:06	44	10:24 (B22)	15:38	25	10:25 (B22)	
17	04:49			05:47			06:49	07:50	07:57		09:40 (B22)	08:46		10:00 (B22)	
	21:54			20:52			19:31	18:12	16:04	44	10:24 (B22)	15:38	25	10:25 (B22)	
18	04:51			05:49			06:51	07:52	07:59		09:41 (B22)	08:46		10:01 (B22)	
	21:52			20:50			19:29	18:09	16:02	43	10:24 (B22)	15:38	25	10:26 (B22)	
19	04:52			05:51			06:53	07:55	08:01		09:41 (B22)	08:47		10:01 (B22)	
	21:51			20:47			19:26	18:07	16:01	43	10:24 (B22)	15:38	24	10:25 (B22)	
20	04:54			05:53			06:55	07:57	08:03		09:41 (B22)	08:48		10:02 (B22)	
	21:49			20:45			19:23	18:04	15:59	43	10:24 (B22)	15:39	24	10:26 (B22)	
21	04:56		06:06 (B1)	05:55			06:57	07:59	08:05		09:41 (B22)	08:48		10:03 (B22)	
	21:48	5	06:11 (B1)	20:42			19:20	18:02	15:58	43	10:24 (B22)	15:39	24	10:27 (B22)	
22	04:57		06:04 (B1)	05:57			06:59	08:01	08:07		09:42 (B22)	08:49		10:03 (B22)	
	21:46	10	06:14 (B1)	20:40			19:18	17:59	15:56	43	10:25 (B22)	15:39	24	10:27 (B22)	
23	04:59		06:02 (B1)	05:59			07:01	08:03	08:09		09:42 (B22)	08:50		10:04 (B22)	
	21:45	13	06:15 (B1)	20:37			19:15	17:57	15:55	43	10:25 (B22)	15:40	24	10:28 (B22)	
24	05:01		06:02 (B1)	06:01			07:03	08:05	08:11		09:43 (B22)	08:50		10:04 (B22)	
	21:43	15	06:17 (B1)	20:35			19:12	17:55	15:53	42	10:25 (B22)	15:41	24	10:28 (B22)	
25	05:03		06:01 (B1)	06:03			07:05	07:07	08:13		09:43 (B22)	08:50		10:04 (B22)	
	21:41	17	06:18 (B1)	20:32			19:10	16:52	15:52	41	10:24 (B22)	15:41	25	10:29 (B22)	
26	05:04		06:00 (B1)	06:05			07:07	07:10	08:15		09:43 (B22)	08:51		10:04 (B22)	
	21:39	18	06:18 (B1)	20:30			19:07	16:50	15:51	41	10:24 (B22)	15:42	25	10:29 (B22)	
27	05:06		06:00 (B1)	06:07			07:09	07:12	08:17		09:45 (B22)	08:51		10:04 (B22)	
	21:38	19	06:19 (B1)	20:27			19:04	16:47	15:49	40	10:25 (B22)	15:43	26	10:30 (B22)	
28	05:08		05:58 (B1)	06:09			07:11	07:14	08:19		09:46 (B22)	08:51		10:05 (B22)	
	21:36	21	06:19 (B1)	20:24			19:02	16:45	15:48	39	10:25 (B22)	15:44	25	10:30 (B22)	
29	05:10		05:58 (B1)	06:11			07:13	07:16	08:21		09:46 (B22)	08:51		10:05 (B22)	
	21:34	22	06:20 (B1)	20:22			18:59	16:43	15:47	39	10:25 (B22)	15:45	26	10:31 (B22)	
30	05:12		05:58 (B1)	06:13			07:15	07:18	08:22		09:47 (B22)	08:51		10:05 (B22)	
	21:32	22	06:20 (B1)	20:19			18:56	16:40	15:46	38	10:25 (B22)	15:46	27	10:32 (B22)	
31	05:14		05:58 (B1)	06:15				07:20				08:51		10:06 (B22)	
	21:30	23	06:21 (B1)	20:17				16:38				15:47	28	10:34 (B22)	
Potential sun hours	529			469			385	324	247			216			
Total, worst case	185			185					1136			875			
Sun reduction	0.49			0.50					0.08			0.07			
Oper. time red.	0.94			0.94					0.94			0.94			
Wind dir. red.	0.67			0.67					0.61			0.61			
Total reduction	0.30			0.30					0.05			0.04			
Total, real	56			56					53			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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January			February			March		April		May		June				
1	08:51		10:25 (B4)	08:15		09:00 (B2)	07:11		06:49		05:32		07:25 (B17)	04:36	07:33 (B17)		
	15:48	55	13:12 (B1)	16:45	29	09:29 (B2)	17:47		19:53		20:55	84	08:49 (B17)	21:53	63	08:36 (B17)	
2	08:50		10:26 (B4)	08:13		09:00 (B2)	07:08		06:46		05:30		07:25 (B17)	04:34		07:34 (B17)	
	15:49	54	13:13 (B1)	16:47	30	09:30 (B2)	17:50		19:55		20:57	84	08:49 (B17)	21:54	61	08:35 (B17)	
3	08:50		10:27 (B4)	08:11		09:00 (B2)	07:06		06:43		05:28		07:25 (B17)	04:33		07:34 (B17)	
	15:50	53	13:13 (B1)	16:49	31	09:31 (B2)	17:52		19:57		20:59	84	08:49 (B17)	21:55	61	08:35 (B17)	
4	08:50		10:27 (B4)	08:09		09:00 (B2)	07:03		06:41		05:25		07:25 (B17)	04:32		07:34 (B17)	
	15:52	52	13:13 (B1)	16:52	32	09:32 (B2)	17:54		19:59	6	08:18 (B17)	21:02	84	08:49 (B17)	21:57	60	08:34 (B17)
5	08:49		10:29 (B4)	08:07		09:00 (B2)	07:00		06:38		08:02 (B17)	05:23		07:25 (B17)	04:31		07:36 (B17)
	15:53	50	13:14 (B1)	16:54	32	09:32 (B2)	17:56		20:01	24	08:26 (B17)	21:04	84	08:49 (B17)	21:58	58	08:34 (B17)
6	08:49		10:30 (B4)	08:05		09:00 (B2)	06:58		06:35		07:58 (B17)	05:21		07:25 (B17)	04:31		07:36 (B17)
	15:55	48	13:14 (B1)	16:56	32	09:32 (B2)	17:58		20:03	32	08:30 (B17)	21:06	84	08:49 (B17)	21:59	58	08:34 (B17)
7	08:48		10:32 (B4)	08:03		09:00 (B2)	06:55		06:33		07:54 (B17)	05:19		07:25 (B17)	04:30		07:36 (B17)
	15:56	45	13:14 (B1)	16:58	32	09:32 (B2)	18:00		20:05	39	08:33 (B17)	21:08	83	08:48 (B17)	22:00	57	08:33 (B17)
8	08:48		10:33 (B4)	08:00		09:01 (B2)	06:53		06:30		07:51 (B17)	05:17		07:25 (B17)	04:29		07:37 (B17)
	15:58	43	13:14 (B1)	17:01	31	09:32 (B2)	18:02		20:07	44	08:35 (B17)	21:10	83	08:48 (B17)	22:01	56	08:33 (B17)
9	08:47		10:37 (B4)	07:58		09:00 (B2)	06:50		06:27		07:49 (B17)	05:14		07:25 (B17)	04:28		07:37 (B17)
	15:59	35	13:14 (B1)	17:03	31	09:31 (B2)	18:05		20:10	49	08:38 (B17)	21:12	82	08:47 (B17)	22:02	56	08:33 (B17)
10	08:46		12:42 (B1)	07:56		09:01 (B2)	06:47		06:25		07:46 (B17)	05:12		07:25 (B17)	04:28		07:38 (B17)
	16:01	32	13:14 (B1)	17:05	31	09:32 (B2)	18:07		20:12	53	08:39 (B17)	21:14	82	08:47 (B17)	22:03	55	08:33 (B17)
11	08:45		12:43 (B1)	07:54		09:02 (B2)	06:45		06:22		07:44 (B17)	05:10		07:25 (B17)	04:27		07:38 (B17)
	16:03	31	13:14 (B1)	17:07	29	09:31 (B2)	18:09		20:14	57	08:41 (B17)	21:16	81	08:46 (B17)	22:04	54	08:32 (B17)
12	08:44		12:44 (B1)	07:52		09:02 (B2)	06:42		06:20		07:42 (B17)	05:08		07:25 (B17)	04:27		07:39 (B17)
	16:04	30	13:14 (B1)	17:10	28	09:30 (B2)	18:11		20:16	60	08:42 (B17)	21:18	81	08:46 (B17)	22:05	53	08:32 (B17)
13	08:43		12:45 (B1)	07:49		09:03 (B2)	06:39		06:17		07:41 (B17)	05:06		07:25 (B17)	04:26		07:40 (B17)
	16:06	28	13:13 (B1)	17:12	27	09:30 (B2)	18:13		20:18	63	08:44 (B17)	21:20	80	08:45 (B17)	22:06	52	08:32 (B17)
14	08:42		12:46 (B1)	07:47		09:04 (B2)	06:37		06:14		07:39 (B17)	05:04		07:25 (B17)	04:26		07:40 (B17)
	16:08	27	13:13 (B1)	17:14	24	09:28 (B2)	18:15		20:20	65	08:44 (B17)	21:22	79	08:44 (B17)	22:07	51	08:31 (B17)
15	08:41		12:48 (B1)	07:45		09:06 (B2)	06:34		06:12		07:38 (B17)	05:02		07:26 (B17)	04:25		07:40 (B17)
	16:10	25	13:13 (B1)	17:16	21	09:27 (B2)	18:17		20:22	68	08:46 (B17)	21:24	79	08:45 (B17)	22:07	52	08:32 (B17)
16	08:40		12:49 (B1)	07:43		09:07 (B2)	06:31		06:09		07:36 (B17)	05:00		07:26 (B17)	04:25		07:41 (B17)
	16:12	23	13:12 (B1)	17:19	18	09:25 (B2)	18:19		20:24	70	08:46 (B17)	21:25	78	08:44 (B17)	22:08	51	08:32 (B17)
17	08:39		12:51 (B1)	07:40		09:10 (B2)	06:29		06:07		07:35 (B17)	04:59		07:26 (B17)	04:25		07:41 (B17)
	16:13	20	13:11 (B1)	17:21	13	09:23 (B2)	18:22		20:26	72	08:47 (B17)	21:27	77	08:43 (B17)	22:08	51	08:32 (B17)
18	08:37		12:53 (B1)	07:38			06:26		06:04		07:34 (B17)	04:57		07:27 (B17)	04:25		07:41 (B17)
	16:15	16	13:09 (B1)	17:23			18:24		20:28	73	08:47 (B17)	21:29	76	08:43 (B17)	22:09	51	08:32 (B17)
19	08:36		12:55 (B1)	07:35			06:23		06:02		07:33 (B17)	04:55		07:26 (B17)	04:25		07:42 (B17)
	16:17	12	13:07 (B1)	17:25			18:26		20:30	75	08:48 (B17)	21:31	76	08:42 (B17)	22:09	50	08:32 (B17)
20	08:35			07:33			06:21		05:59		07:31 (B17)	04:53		07:27 (B17)	04:25		07:42 (B17)
	16:19			17:28			18:28		20:32	77	08:48 (B17)	21:33	75	08:42 (B17)	22:10	50	08:32 (B17)
21	08:33			07:31			06:18		05:56		07:31 (B17)	04:51		07:27 (B17)	04:25		07:42 (B17)
	16:21			17:30			18:30		20:35	78	08:49 (B17)	21:35	74	08:41 (B17)	22:10	50	08:32 (B17)
22	08:32			07:28			06:15		05:54		07:29 (B17)	04:50		07:28 (B17)	04:25		07:43 (B17)
	16:23			17:32			18:32		20:37	79	08:48 (B17)	21:36	73	08:41 (B17)	22:10	50	08:33 (B17)
23	08:30			07:26			06:13		05:52		07:29 (B17)	04:48		07:28 (B17)	04:25		07:43 (B17)
	16:26			17:34			18:34		20:39	80	08:49 (B17)	21:38	72	08:40 (B17)	22:10	50	08:33 (B17)
24	08:29		09:10 (B2)	07:23			06:10		05:49		07:29 (B17)	04:46		07:29 (B17)	04:26		07:43 (B17)
	16:28	8	09:18 (B2)	17:36			18:36		20:41	81	08:50 (B17)	21:40	71	08:40 (B17)	22:10	50	08:33 (B17)
25	08:27		09:07 (B2)	07:21			06:07		05:47		07:27 (B17)	04:45		07:30 (B17)	04:26		07:43 (B17)
	16:30	14	09:21 (B2)	17:39			18:38		20:43	82	08:49 (B17)	21:42	70	08:40 (B17)	22:10	51	08:34 (B17)
26	08:25		09:06 (B2)	07:18			06:05		05:44		07:27 (B17)	04:43		07:29 (B17)	04:27		07:43 (B17)
	16:32	17	09:23 (B2)	17:41			18:40		20:45	82	08:49 (B17)	21:43	69	08:38 (B17)	22:10	51	08:34 (B17)
27	08:24		09:04 (B2)	07:16			06:02		05:42		07:27 (B17)	04:42		07:30 (B17)	04:27		07:43 (B17)
	16:34	21	09:25 (B2)	17:43			18:42		20:47	83	08:50 (B17)	21:45	68	08:38 (B17)	22:10	52	08:35 (B17)
28	08:22		09:03 (B2)	07:13			05:59		05:39		07:27 (B17)	04:41		07:31 (B17)	04:28		07:43 (B17)
	16:36	23	09:26 (B2)	17:45			18:45		20:49	83	08:50 (B17)	21:47	67	08:38 (B17)	22:10	51	08:34 (B17)
29	08:20		09:03 (B2)				06:57		05:37		07:26 (B17)	04:39		07:31 (B17)	04:28		07:43 (B17)
	16:38	24	09:27 (B2)				19:47		20:51	83	08:49 (B17)	21:48	66	08:37 (B17)	22:10	52	08:35 (B17)
30	08:18		09:02 (B2)				06:54		05:35		07:25 (B17)	04:38		07:32 (B17)	04:29		07:42 (B17)
	16:41	27	09:29 (B2)				19:49		20:53	84	08:49 (B17)	21:50	65	08:37 (B17)	22:09	53	08:35 (B17)
31	08:17		09:02 (B2)				06:51					04:37		07:33 (B17)			
	16:43	28	09:30 (B2)				19:51					21:51	63	08:36 (B17)			
Potential sun hours	235			266			366		426		508			529			
Total, worst case		841			471				1742			2374				1610	
Sun reduction		0.13			0.20				0.50			0.57				0.56	
Oper. time red.		0.94			0.94				0.94			0.94				0.94	
Wind dir. red.		0.63			0.59				0.65			0.65				0.65	
Total reduction		0.08			0.11				0.30			0.34				0.34	
Total, real		65			52				529			819				546	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

July		August		September		October		November		December	
1	04:30	07:43 (B17)	05:15	07:35 (B17)	06:17	07:43 (B17)	07:17	07:22	08:30 (B2)	08:24	12:25 (B1)
2	22:09	53	08:36 (B17)	21:28	81	08:56 (B17)	20:14	57	08:40 (B17)	18:53	12:56 (B1)
3	04:31	07:43 (B17)	05:17	07:35 (B17)	06:19	07:45 (B17)	07:19	07:25	08:30 (B2)	08:26	12:25 (B1)
4	22:09	54	08:37 (B17)	21:26	82	08:57 (B17)	20:11	53	08:38 (B17)	18:51	12:57 (B1)
5	04:31	07:43 (B17)	05:19	07:35 (B17)	06:21	07:47 (B17)	07:21	07:27	08:30 (B2)	08:28	12:50 (B4)
6	22:08	55	08:38 (B17)	21:24	82	08:57 (B17)	20:09	49	08:36 (B17)	18:48	12:57 (B1)
7	04:32	07:43 (B17)	05:21	07:34 (B17)	06:23	07:48 (B17)	07:23	07:29	08:30 (B2)	08:29	10:18 (B4)
8	22:07	55	08:38 (B17)	21:22	83	08:57 (B17)	20:06	44	08:32 (B17)	18:45	12:58 (B1)
9	04:33	07:43 (B17)	05:23	07:34 (B17)	06:25	07:50 (B17)	07:25	07:31	08:29 (B2)	08:31	10:17 (B4)
10	22:07	56	08:39 (B17)	21:19	83	08:57 (B17)	20:03	39	08:29 (B17)	18:43	12:59 (B1)
11	04:34	07:43 (B17)	05:25	07:34 (B17)	06:27	07:53 (B17)	07:27	07:33	08:30 (B2)	08:32	10:16 (B4)
12	22:06	57	08:40 (B17)	21:17	84	08:58 (B17)	20:01	33	08:26 (B17)	18:40	13:00 (B1)
13	04:35	07:42 (B17)	05:27	07:34 (B17)	06:29	07:57 (B17)	07:29	07:36	08:30 (B2)	08:34	10:15 (B4)
14	22:05	59	08:41 (B17)	21:15	84	08:58 (B17)	19:58	24	08:21 (B17)	18:38	13:00 (B1)
15	04:37	07:42 (B17)	05:29	07:34 (B17)	06:31	08:04 (B17)	07:31	07:38	08:31 (B2)	08:35	10:16 (B4)
16	22:04	59	08:41 (B17)	21:13	84	08:58 (B17)	19:55	9	08:13 (B17)	18:35	13:01 (B1)
17	04:38	07:42 (B17)	05:31	07:34 (B17)	06:33	07:34	07:34	07:40	08:31 (B2)	08:37	10:15 (B4)
18	22:03	60	08:42 (B17)	21:11	84	08:58 (B17)	19:53	18	08:13 (B17)	18:32	13:01 (B1)
19	04:39	07:41 (B17)	05:33	07:33 (B17)	06:35	07:36	07:36	07:42	08:31 (B2)	08:38	10:16 (B4)
20	22:02	62	08:43 (B17)	21:08	85	08:58 (B17)	19:50	16	08:17	18:30	13:02 (B1)
21	04:40	07:41 (B17)	05:35	07:34 (B17)	06:37	07:38	07:38	07:44	08:32 (B2)	08:39	10:15 (B4)
22	22:01	62	08:43 (B17)	21:06	84	08:58 (B17)	19:47	18	08:17	18:27	13:02 (B1)
23	04:42	07:40 (B17)	05:37	07:34 (B17)	06:39	07:40	07:40	07:46	08:33 (B2)	08:40	10:16 (B4)
24	22:00	64	08:44 (B17)	21:04	84	08:58 (B17)	19:45	18	08:17	18:24	13:03 (B1)
25	04:43	07:41 (B17)	05:39	07:34 (B17)	06:41	07:42	07:42	07:49	08:35 (B2)	08:42	10:16 (B4)
26	21:59	64	08:45 (B17)	21:01	84	08:58 (B17)	19:42	18	08:17	18:22	13:04 (B1)
27	04:45	07:40 (B17)	05:41	07:34 (B17)	06:43	07:44	07:44	07:51	08:35 (B2)	08:43	10:16 (B4)
28	21:58	66	08:46 (B17)	20:59	84	08:58 (B17)	19:39	18	08:17	18:19	13:04 (B1)
29	04:46	07:40 (B17)	05:43	07:34 (B17)	06:45	07:46	07:46	07:53	08:36 (B2)	08:44	10:16 (B4)
30	21:57	66	08:46 (B17)	20:57	83	08:57 (B17)	19:37	18	08:17	18:17	13:05 (B1)
31	04:47	07:40 (B17)	05:45	07:33 (B17)	06:47	07:48	07:48	07:55	08:39 (B2)	08:45	10:17 (B4)
32	21:55	67	08:47 (B17)	20:54	83	08:56 (B17)	19:34	18	08:17	18:14	13:05 (B1)
33	04:49	07:39 (B17)	05:47	07:34 (B17)	06:49	07:50	07:50	07:57	08:40 (B2)	08:46	10:17 (B4)
34	21:54	69	08:48 (B17)	20:52	82	08:56 (B17)	19:31	18	08:17	18:12	13:06 (B1)
35	04:51	07:39 (B17)	05:49	07:34 (B17)	06:51	07:52	07:52	07:59	08:44 (B2)	08:46	10:18 (B4)
36	21:52	69	08:48 (B17)	20:49	82	08:56 (B17)	19:28	18	08:17	18:09	13:06 (B1)
37	04:52	07:39 (B17)	05:51	07:34 (B17)	06:53	07:54	07:54	08:01	08:47	08:47	10:18 (B4)
38	21:51	70	08:49 (B17)	20:47	81	08:55 (B17)	19:26	18	08:17	18:07	13:07 (B1)
39	04:54	07:38 (B17)	05:53	07:35 (B17)	06:55	07:57	07:57	08:03	08:48	08:48	10:18 (B4)
40	21:49	71	08:49 (B17)	20:45	80	08:55 (B17)	19:23	18	08:17	18:04	13:07 (B1)
41	04:56	07:38 (B17)	05:55	07:35 (B17)	06:57	07:59	07:59	08:05	08:48	08:48	10:19 (B4)
42	21:48	73	08:51 (B17)	20:42	79	08:54 (B17)	19:20	18	08:17	18:02	13:08 (B1)
43	04:57	07:38 (B17)	05:57	07:36 (B17)	06:59	08:01	08:01	08:07	08:49	08:49	10:19 (B4)
44	21:46	74	08:52 (B17)	20:40	77	08:53 (B17)	19:18	18	08:17	17:59	13:08 (B1)
45	04:59	07:37 (B17)	05:59	07:36 (B17)	07:01	08:03	08:03	08:09	08:50	08:50	10:20 (B4)
46	21:45	75	08:52 (B17)	20:37	77	08:53 (B17)	19:15	18	08:17	17:57	13:09 (B1)
47	05:01	07:38 (B17)	06:01	07:37 (B17)	07:03	08:05	08:05	08:11	08:51	08:51	10:20 (B4)
48	21:43	75	08:53 (B17)	20:35	75	08:52 (B17)	19:12	18	08:17	17:54	13:09 (B1)
49	05:02	07:37 (B17)	06:03	07:36 (B17)	07:05	07:07	07:07	07:13	08:53	08:53	10:20 (B4)
50	21:41	76	08:53 (B17)	20:32	74	08:50 (B17)	19:10	18	08:17	16:52	13:09 (B1)
51	05:04	07:37 (B17)	06:05	07:37 (B17)	07:07	07:09	07:09	07:15	08:53	08:53	10:21 (B4)
52	21:39	77	08:54 (B17)	20:29	72	08:49 (B17)	19:07	18	08:17	16:50	13:10 (B1)
53	05:06	07:37 (B17)	06:07	07:38 (B17)	07:09	07:12	07:12	07:18	08:53	08:53	10:21 (B4)
54	21:38	78	08:55 (B17)	20:27	70	08:48 (B17)	19:04	18	08:17	16:47	13:10 (B1)
55	05:08	07:36 (B17)	06:09	07:39 (B17)	07:11	07:14	07:14	07:20	08:53	08:53	10:22 (B4)
56	21:36	78	08:54 (B17)	20:24	67	08:46 (B17)	19:01	18	08:17	16:45	13:11 (B1)
57	05:10	07:36 (B17)	06:11	07:40 (B17)	07:13	07:16	07:16	07:22	08:53	08:53	10:23 (B4)
58	21:34	79	08:55 (B17)	20:22	65	08:45 (B17)	18:59	18	08:17	16:43	13:11 (B1)
59	05:12	07:36 (B17)	06:13	07:41 (B17)	07:15	07:18	07:18	07:24	08:53	08:53	10:24 (B4)
60	21:32	80	08:56 (B17)	20:19	62	08:43 (B17)	18:56	18	08:17	16:40	13:12 (B1)
61	05:14	07:35 (B17)	06:15	07:42 (B17)	07:17	07:20	07:20	07:26	08:53	08:53	10:25 (B4)
62	21:30	81	08:56 (B17)	20:17	60	08:42 (B17)	18:54	18	08:17	16:38	13:12 (B1)
Potential sun hours	529		469		385		324		247		216
Total, worst case	2084		2437		308		172		652		1656
Sun reduction	0.49		0.50		0.43		0.26		0.08		0.07
Oper. time red.	0.94		0.94		0.94		0.94		0.94		0.94
Wind dir. red.	0.65		0.65		0.65		0.59		0.60		0.63
Total reduction	0.30		0.30		0.26		0.14		0.05		0.04
Total, real	624		737		80		24		30		68

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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	08:36 15:39
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12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
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31	08:17 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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	04:25 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
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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 15:39
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
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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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19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:46
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Ziedini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (111)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	9	09:41 (B22)	08:15	25	09:43 (B22)	07:11	06:49	05:33	04:36	04:30	05:16	06:17	07:17	07:23					07:23		08:24		09:20 (B22)
	15:48		09:50 (B22)	16:45		10:08 (B22)	17:48	19:53	20:55	21:53	22:09	21:28	20:14	18:54	16:36					16:36		15:45	25	09:45 (B22)
2	08:51		09:41 (B22)	08:13		09:44 (B22)	07:08	06:46	05:30	04:35	04:31	05:18	06:19	07:19	07:25					07:25		08:26		09:21 (B22)
	15:49	11	09:52 (B22)	16:47	24	10:08 (B22)	17:50	19:55	20:58	21:54	22:09	21:26	20:11	18:51	16:34					16:34		15:44	24	09:45 (B22)
3	08:50		09:40 (B22)	08:11		09:45 (B22)	07:06	06:43	05:28	04:34	04:32	05:19	06:21	07:21	07:27					07:27		08:28		09:22 (B22)
	15:51	13	09:53 (B22)	16:50	22	10:07 (B22)	17:52	19:57	21:00	21:55	22:08	21:24	20:09	18:48	16:32					16:32		15:43	23	09:45 (B22)
4	08:50		09:39 (B22)	08:09		09:47 (B22)	07:03	06:41	05:26	04:33	04:33	05:21	06:23	07:23	07:29					07:29		08:29		09:22 (B22)
	15:52	15	09:54 (B22)	16:52	18	10:05 (B22)	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:46	16:29					16:29		15:42	22	09:44 (B22)
5	08:49		09:39 (B22)	08:07		09:50 (B22)	07:01	06:38	05:23	04:32	04:34	05:23	06:25	07:25	07:31					07:31		09:23 (B22)		09:23 (B22)
	15:53	17	09:56 (B22)	16:54	13	10:03 (B22)	17:56	20:01	21:04	21:58	22:07	21:20	20:03	18:43	16:27		6			16:27		09:29 (B22)	21	09:44 (B22)
6	08:49		09:39 (B22)	08:05		09:54 (B22)	06:58	06:35	05:21	04:31	04:35	05:25	06:27	07:27	07:33					07:33		09:19 (B22)		09:25 (B22)
	15:55	18	09:57 (B22)	16:56	4	09:58 (B22)	17:58	20:03	21:06	21:59	22:06	21:17	20:01	18:40	16:25		14			16:25		09:33 (B22)	19	09:44 (B22)
7	08:48		09:38 (B22)	08:03			06:55	06:33	05:19	04:30	04:36	05:27	06:29	07:30	07:36					07:36		09:17 (B22)		09:25 (B22)
	15:56	20	09:58 (B22)	16:59			18:01	20:05	21:08	22:00	22:05	21:15	19:58	18:38	16:23		18			16:23		09:35 (B22)	18	09:43 (B22)
8	08:48		09:38 (B22)	08:01			06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:32	07:38					07:38		09:16 (B22)		09:27 (B22)
	15:58	21	09:59 (B22)	17:01			18:03	20:08	21:10	22:01	22:04	21:13	19:55	18:35	16:21		21			16:21		09:37 (B22)	16	09:43 (B22)
9	08:47		09:38 (B22)	07:58			06:50	06:28	05:15	04:28	04:38	05:31	06:33	07:34	07:40					07:40		09:14 (B22)		09:28 (B22)
	15:59	22	10:00 (B22)	17:03			18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:32	16:19		24			16:19		09:38 (B22)	14	09:42 (B22)
10	08:46		09:38 (B22)	07:56			06:47	06:25	05:13	04:28	04:39	05:33	06:35	07:36	07:42					07:42		09:14 (B22)		09:30 (B22)
	16:01	24	10:02 (B22)	17:05			18:07	20:12	21:14	22:03	22:02	21:08	19:50	18:30	16:17		26			16:17		09:40 (B22)	12	09:42 (B22)
11	08:45		09:38 (B22)	07:54			06:45	06:22	05:11	04:27	04:41	05:35	06:37	07:38	07:44					07:44		09:13 (B22)		09:31 (B22)
	16:03	25	10:03 (B22)	17:08			18:09	20:14	21:16	22:04	22:01	21:06	19:47	18:27	16:15		28			16:15		09:41 (B22)	10	09:41 (B22)
12	08:44		09:38 (B22)	07:52			06:42	06:20	05:08	04:27	04:42	05:37	06:39	07:40	07:46					07:46		09:12 (B22)		09:33 (B22)
	16:04	26	10:04 (B22)	17:10			18:11	20:16	21:18	22:05	22:01	21:04	19:45	18:25	16:13		29			16:13		09:41 (B22)	8	09:41 (B22)
13	08:43		09:37 (B22)	07:50			06:40	06:18	05:06	04:26	04:43	05:38	06:41	07:42	07:49					07:49		09:13 (B22)		09:35 (B22)
	16:06	27	10:04 (B22)	17:12			18:13	20:18	21:20	22:06	21:59	21:02	19:42	18:22	16:11					16:11		09:12 (B22)	4	09:39 (B22)
14	08:42		09:37 (B22)	07:47			06:37	06:15	05:04	04:26	04:45	05:41	06:43	07:44	07:51					07:51		09:12 (B22)		09:43 (B22)
	16:08	28	10:05 (B22)	17:14			18:15	20:20	21:22	22:07	21:58	20:59	19:39	18:20	16:09		31			16:09		09:43 (B22)		15:38
15	08:41		09:37 (B22)	07:45			06:34	06:12	05:03	04:26	04:46	05:43	06:45	07:46	07:53					07:53		09:11 (B22)		09:44 (B22)
	16:10	29	10:06 (B22)	17:17			18:18	20:22	21:24	22:07	21:57	20:57	19:37	18:17	16:08		32			16:08		09:43 (B22)		15:38
16	08:40		09:37 (B22)	07:43			06:32	06:09	05:01	04:25	04:48	05:45	06:47	07:48	07:55					07:55		09:12 (B22)		09:45 (B22)
	16:12	30	10:07 (B22)	17:19			18:20	20:24	21:26	22:08	21:55	20:54	19:34	18:14	16:06		32			16:06		09:44 (B22)		15:38
17	08:39		09:37 (B22)	07:40			06:29	06:07	04:59	04:25	04:49	05:47	06:49	07:50	07:57					07:57		09:12 (B22)		09:46 (B22)
	16:14	31	10:08 (B22)	17:21			18:22	20:26	21:27	22:09	21:54	20:52	19:31	18:12	16:04		32			16:04		09:44 (B22)		15:38
18	08:38		09:37 (B22)	07:38			06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:52	07:59					07:59		09:12 (B22)		09:46 (B22)
	16:16	31	10:08 (B22)	17:23			18:24	20:28	21:29	22:09	21:52	20:50	19:29	18:09	16:02		33			16:02		09:43 (B22)		15:38
19	08:36		09:37 (B22)	07:36			06:24	06:02	04:55	04:25	04:52	05:51	06:53	07:55	08:01					08:01		09:12 (B22)		09:47 (B22)
	16:18	31	10:09 (B22)	17:26			18:26	20:30	21:31	22:09	21:51	20:47	19:26	18:06	16:01		33			16:01		09:43 (B22)		15:38
20	08:35		09:37 (B22)	07:33			06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:03					08:03		09:13 (B22)		09:48 (B22)
	16:20	32	10:09 (B22)	17:28			18:28	20:33	21:33	22:10	21:49	20:45	19:23	18:04	15:59		33			15:59		09:45 (B22)		15:39
21	08:33		09:37 (B22)	07:31			06:18	05:57	04:52	04:25	04:56	05:55	06:57	07:59	08:05					08:05		09:12 (B22)		09:49 (B22)
	16:22	32	10:09 (B22)	17:30			18:30	20:35	21:35	22:10	21:48	20:42	19:20	18:02	15:58		32			15:58		09:44 (B22)		15:39
22	08:32		09:37 (B22)	07:28			06:16	05:54	04:50	04:25	04:57	05:57	06:59	08:01	08:07					08:07		09:13 (B22)		09:49 (B22)
	16:24	33	10:10 (B22)	17:32			18:32	20:37	21:37	22:10	21:46	20:40	19:18	17:59	15:56		32			15:56		09:45 (B22)		15:39
23	08:30		09:37 (B22)	07:26			06:13	05:52	04:48	04:26	04:59	05:59	07:01	08:03	08:09					08:09		09:14 (B22)		09:50 (B22)
	16:26	33	10:10 (B22)	17:34			18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:55		31			15:55		09:45 (B22)		15:40
24	08:29		09:38 (B22)	07:23			06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:11					08:11		09:14 (B22)		09:50 (B22)
	16:28	33	10:11 (B22)	17:37			18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:55	15:53		31			15:53		09:45 (B22)		15:41
25	08:27		09:39 (B22)	07:21			06:07	05:47	04:45	04:26	05:03	06:03	07:05	07:07	08:13					08:13		09:14 (B22)		09:50 (B22)
	16:30	32	10:11 (B22)	17:39			18:38	20:43	21:42	22:10	21:41	20:32	19:10	17:52	15:52		31			15:52		09:46 (B22)		15:41
26	08:26		09:39 (B22)	07:18			06:05	05:44	04:44	04:27	05:04	06:05	07:07	07:10	08:15					08:15		09:16 (B22)		09:51 (B22)
	16:32	32	10:11 (B22)	17:41			18:41	20:45	21:43	22:10	21:39	20:30	19:07	17:50	15:50		30			15:50		09:46 (B22)		15:42
27	08:24		09:39 (B22)	07:16			06:02	05:42	04:42	04:27	05:06	06:07	07:09	07:12	08:17					08:17		09:16 (B22)		09:51 (B22)
	16:34	32	10:11 (B22)	17:43			18:43	20:47	21:45	22:10	21:38	20:27	19:04	16:47	15:49		29			15:49		09:45 (B22)		15:43
28	08:22		09:40 (B22)	07:13			05:59	05:40	04:41	04:28	05:08	06:09	07:11	07:14	08:19					08:19		09:17 (B22)		09:51 (B22)
	16:36	31	10:11 (B22)	17:45			18:45	20:49	21:47	22:10	21:36	20:24	19:02	16:45	15:48		28			15:48		09:45 (B22)		15:44
29	08:20		09:41 (B22)				06:57	05:37	04:40	04:29	05:10	06:11	07:13	07:16	08:21					08:21		09:18 (B22)		09:51 (B22)
	16:39	30	10:11 (B22)				19:47	20:51	21:48	22:10	21:34	20:22	18:59	16:43	15:47		27			15:47		09:45 (B22)		15:45
30	08:19</																							

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B14) 08:05 (B14)	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 (B14) 08:03 (B14)	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 (B14) 08:01 (B14)	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	5	07:52 (B14) 07:57 (B14)	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	9	07:13 (B14) 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	7	07:10 (B14) 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 16:03	07:52 17:08	06:42 18:09	14	07:08 (B14) 20:14	05:09 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:48		07:40 18:27			07:46 16:15	08:40 15:39
13	08:43 16:05	07:50 17:10	06:40 18:11	18	07:06 (B14) 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 17:12	06:37 18:13	21	07:03 (B14) 20:18	05:05 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 17:14	06:34 18:16	24	07:02 (B14) 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 16:10	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:18	26	07:01 (B14) 20:22	05:01 21:24	04:26 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	06:29 18:22	26	07:01 (B14) 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	26	07:00 (B14) 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:55 (B14) 08:04 (B14)	07:53 18:09	9	07:51 (B14) 08:07 (B14)	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	26	07:01 (B14) 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 (B14) 08:07 (B14)	07:55 18:07	16	07:49 (B14) 08:09 (B14)	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	26	07:00 (B14) 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 (B14) 08:08 (B14)	07:57 18:04	19	07:49 (B14) 08:10 (B14)	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	24	07:00 (B14) 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 (B14) 08:09 (B14)	07:59 18:02	21	07:48 (B14) 08:10 (B14)	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	22	07:02 (B14) 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	07:59 (B14) 08:10 (B14)	08:01 18:00	24	07:46 (B14) 08:10 (B14)	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	20	07:02 (B14) 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	07:59 (B14) 08:10 (B14)	08:03 17:57	25	07:45 (B14) 08:10 (B14)	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	17	07:03 (B14) 20:41	04:49 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	07:59 (B14) 08:10 (B14)	08:05 17:55	25	07:44 (B14) 08:10 (B14)	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	11	07:06 (B14) 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:59 (B14) 08:10 (B14)	08:05 16:52	26	07:43 (B14) 08:10 (B14)	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	07:59 (B14) 08:10 (B14)	08:05 16:50	27	07:43 (B14) 08:09 (B14)	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	07:59 (B14) 08:09 (B14)	08:05 16:48	26	07:43 (B14) 08:09 (B14)	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	07:59 (B14) 08:09 (B14)	08:05 16:45	26	07:43 (B14) 08:09 (B14)	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	07:59 (B14) 08:08 (B14)	07:16 16:43	25	07:43 (B14) 08:08 (B14)	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	07:59 (B14) 08:07 (B14)	07:18 16:41	23	07:44 (B14) 08:07 (B14)	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			336							292		50				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.94							0.94		0.94				
Wind dir. red.			0.63							0.63		0.63				
Total reduction			0.24							0.25		0.15				
Total, real			82							74		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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	05:45 (B12) 20:52 (B25)	04:30 22:09	05:59 (B12) 21:00 (B25)	05:16 21:28	05:53 (B12) 20:48 (B24)	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 (B12) 20:52 (B25)	04:31 22:08	05:58 (B12) 21:00 (B25)	05:18 21:26	05:54 (B12) 20:47 (B24)	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	05:46 (B12) 20:53 (B25)	04:32 22:08	05:57 (B12) 21:00 (B25)	05:19 21:23	05:55 (B12) 20:47 (B24)	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	05:47 (B12) 20:53 (B25)	04:33 22:07	05:57 (B12) 21:00 (B25)	05:21 21:21	05:57 (B12) 20:46 (B24)	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	05:48 (B12) 20:54 (B25)	04:34 22:06	05:56 (B12) 21:00 (B25)	05:23 21:19	05:58 (B12) 20:45 (B24)	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	05:49 (B12) 20:54 (B25)	04:35 22:06	05:55 (B12) 21:00 (B25)	05:25 21:17	06:01 (B12) 20:43 (B24)	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	05:50 (B12) 20:54 (B25)	04:36 22:05	05:55 (B12) 21:00 (B25)	05:27 21:15	20:29 (B24) 20:41 (B24)	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	05:48 (B12) 20:55 (B25)	04:29 22:04	05:51 (B12) 21:00 (B25)	04:37 21:13	05:54 (B12) 20:39 (B24)	06:31 19:55	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	04:29 22:02	05:46 (B12) 20:55 (B25)	04:29 22:03	05:52 (B12) 21:00 (B25)	04:38 21:10	05:54 (B12) 20:39 (B24)	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	05:45 (B12) 20:55 (B25)	04:28 22:03	05:53 (B12) 21:00 (B25)	05:33 21:08	05:53 (B12) 20:39 (B24)	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 21:15	04:27 22:04	05:44 (B12) 20:55 (B25)	04:27 22:01	05:53 (B12) 21:00 (B25)	05:35 21:06	05:53 (B12) 20:39 (B24)	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:17	04:27 22:05	05:42 (B12) 20:56 (B25)	04:27 22:00	05:53 (B12) 21:00 (B25)	05:37 21:04	05:53 (B12) 20:39 (B24)	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	05:42 (B12) 20:56 (B25)	04:26 22:01	05:53 (B12) 21:00 (B25)	05:39 21:01	05:53 (B12) 20:39 (B24)	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	05:42 (B12) 20:57 (B25)	04:26 21:58	05:52 (B12) 20:59 (B25)	05:41 20:59	05:52 (B12) 20:39 (B24)	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	05:41 (B12) 20:56 (B25)	04:26 21:56	05:51 (B12) 20:59 (B25)	05:43 20:57	05:51 (B12) 20:39 (B24)	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	04:25 22:08	05:41 (B12) 20:57 (B25)	04:25 21:55	05:52 (B12) 20:59 (B25)	05:45 20:54	05:52 (B12) 20:39 (B24)	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	05:41 (B12) 20:57 (B25)	04:25 21:54	05:51 (B12) 20:58 (B25)	05:47 20:52	05:51 (B12) 20:39 (B24)	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	05:41 (B12) 20:57 (B25)	04:25 21:52	05:52 (B12) 20:58 (B25)	05:49 20:49	05:52 (B12) 20:39 (B24)	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	05:40 (B12) 20:57 (B25)	04:25 21:51	05:51 (B12) 20:57 (B25)	05:51 20:47	05:51 (B12) 20:39 (B24)	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	05:41 (B12) 20:57 (B25)	04:25 21:49	05:51 (B12) 20:57 (B25)	05:53 20:44	05:51 (B12) 20:39 (B24)	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	05:40 (B12) 20:57 (B25)	04:25 21:48	05:51 (B12) 20:55 (B25)	05:55 20:42	05:51 (B12) 20:39 (B24)	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	05:41 (B12) 20:58 (B25)	04:26 21:46	05:51 (B12) 20:55 (B25)	05:57 20:39	05:51 (B12) 20:39 (B24)	06:59 19:18	08:01 18:09	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	05:41 (B12) 20:58 (B25)	04:26 21:44	05:50 (B12) 20:53 (B25)	05:59 20:37	05:50 (B12) 20:39 (B24)	07:01 19:15	08:03 18:09	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	05:41 (B12) 20:58 (B25)	04:26 21:43	05:51 (B12) 20:52 (B25)	06:01 20:34	05:51 (B12) 20:39 (B24)	07:03 19:12	08:05 18:07	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	05:42 (B12) 20:58 (B25)	04:26 21:41	05:50 (B12) 20:49 (B25)	06:03 20:32	05:50 (B12) 20:39 (B24)	07:05 19:10	07:07 18:16	07:55 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	05:42 (B12) 20:59 (B25)	04:27 21:39	05:51 (B12) 20:48 (B24)	06:05 20:29	05:51 (B12) 20:39 (B24)	07:07 19:07	07:09 18:10	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	05:42 (B12) 20:59 (B25)	04:27 21:37	05:51 (B12) 20:49 (B24)	06:07 20:27	05:51 (B12) 20:39 (B24)	07:09 19:04	07:11 18:14	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	05:43 (B12) 20:59 (B25)	04:28 21:35	05:51 (B12) 20:48 (B24)	06:09 20:24	05:51 (B12) 20:39 (B24)	07:11 19:01	07:14 18:16	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 22:09	05:43 (B12) 20:50 (B25)	04:29 21:33	05:52 (B12) 20:49 (B24)	06:11 20:22	05:52 (B12) 20:39 (B24)	07:13 18:59	07:16 18:13	08:20 15:47	08:51 15:45
30	08:18 16:41	07:04 17:54	05:54 18:54	05:35 20:53	04:38 21:49	04:29 22:09	05:44 (B12) 20:51 (B25)	04:29 21:32	05:52 (B12) 20:49 (B24)	06:13 20:19	05:52 (B12) 20:39 (B24)	07:15 18:56	07:18 18:16	08:22 15:46	08:51 15:46
31	08:16 16:43	07:01 17:51	05:51 18:51	05:32 20:51	04:37 21:51	04:29 22:09	05:44 (B12) 20:52 (B25)	04:29 21:30	05:53 (B12) 20:49 (B24)	06:15 20:16	05:53 (B12) 20:39 (B24)	07:20 18:56	07:20 18:16	08:22 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216			
Total, worst case					1321		1384		1711		241				
Sun reduction					0.57		0.56		0.49		0.50				
Oper. time red.					0.94		0.94		0.94		0.94				
Wind dir. red.					0.64		0.63		0.64		0.64				
Total reduction					0.34		0.33		0.30		0.30				
Total, real					454		457		508		73				

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January				February		March		April				May				June	
1	08:51		12:55 (B22)	08:15	07:11				06:49				05:32		06:25 (B1)	04:36		
	15:48	19	13:14 (B22)	16:45	17:47				19:53				20:55	39	07:04 (B1)	21:53		
2	08:50		12:56 (B22)	08:13	07:08				06:46				05:30		06:25 (B1)	04:35		
	15:49	19	13:15 (B22)	16:47	17:50				19:55				20:57	40	07:05 (B1)	21:54		
3	08:50		12:57 (B22)	08:11	07:06				06:43				05:28		06:25 (B1)	04:34		
	15:51	17	13:14 (B22)	16:50	17:52				19:57				21:00	40	07:05 (B1)	21:55		
4	08:50		12:58 (B22)	08:09	07:03				06:41				05:26		06:25 (B1)	04:33		
	15:52	16	13:14 (B22)	16:52	17:54				19:59				21:02	40	07:05 (B1)	21:57		
5	08:49		13:00 (B22)	08:07	07:00				06:38				05:23		06:25 (B1)	04:32		
	15:53	14	13:14 (B22)	16:54	17:56				20:01				21:04	40	07:05 (B1)	21:58		
6	08:49		13:01 (B22)	08:05	06:58				06:35				05:21		06:25 (B1)	04:31		
	15:55	12	13:13 (B22)	16:56	17:58				20:03				21:06	40	07:05 (B1)	21:59		
7	08:48		13:03 (B22)	08:03	06:55				06:33				05:19		06:25 (B1)	04:30		
	15:56	9	13:12 (B22)	16:59	18:00				20:05				21:08	39	07:04 (B1)	22:00		
8	08:48			08:00	06:53				06:30				05:17		06:25 (B1)	04:29		
	15:58			17:01	18:03				20:08				21:10	39	07:04 (B1)	22:01		
9	08:47			07:58	06:50				06:27				05:15		06:25 (B1)	04:28		
	15:59			17:03	18:05				20:10				21:12	39	07:04 (B1)	22:02		
10	08:46			07:56	06:47				06:25				05:13		06:25 (B1)	04:28		
	16:01			17:05	18:07				20:12				21:14	38	07:03 (B1)	22:03		
11	08:45			07:54	06:45				06:22				05:10		06:25 (B1)	04:27		
	16:03			17:08	18:09				20:14				21:16	37	07:02 (B1)	22:04		
12	08:44			07:52	06:42				06:20				05:08		06:25 (B1)	04:27		
	16:04			17:10	18:11				20:16				21:18	37	07:02 (B1)	22:05		
13	08:43			07:49	06:39				06:17				05:06		06:26 (B1)	04:26		
	16:06			17:12	18:13				20:18				21:20	35	07:01 (B1)	22:06		
14	08:42			07:47	06:37				06:14				05:04		06:27 (B1)	04:26		
	16:08			17:14	18:15				20:20				21:22	34	07:01 (B1)	22:07		
15	08:41			07:45	06:34				06:12				05:02		06:28 (B1)	04:26		
	16:10			17:17	18:17				20:22				21:24	32	07:00 (B1)	22:07		
16	08:40			07:43	06:32			06:57 (B4)	06:09				05:01		06:28 (B1)	04:25		
	16:12			17:19	18:20	6	07:03 (B4)	20:24					21:25	31	06:59 (B1)	22:08		
17	08:39			07:40	06:29			06:54 (B4)	06:07				04:59		06:29 (B1)	04:25		
	16:14			17:21	18:22	11	07:05 (B4)	20:26					21:27	30	06:59 (B1)	22:08		
18	08:37			07:38	06:26			06:51 (B4)	06:04				04:57		06:30 (B1)	04:25		
	16:16			17:23	18:24	15	07:06 (B4)	20:28					21:29	27	06:57 (B1)	22:09		
19	08:36			07:35	06:23			06:49 (B4)	06:02				04:55		06:31 (B1)	04:25		
	16:18			17:25	18:26	19	07:08 (B4)	20:30					21:31	25	06:56 (B1)	22:09		
20	08:35			07:33	06:21			06:47 (B4)	05:59		06:40 (B1)	04:53			06:32 (B1)	04:25		
	16:20			17:28	18:28	21	07:08 (B4)	20:33	13	06:53 (B1)	21:33	23	06:55 (B1)	22:10				
21	08:33			07:31	06:18			06:46 (B4)	05:57		06:37 (B1)	04:52			06:33 (B1)	04:25		
	16:22			17:30	18:30	22	07:08 (B4)	20:35	19	06:56 (B1)	21:35	20	06:53 (B1)	22:10				
22	08:32			07:28	06:15			06:47 (B4)	05:54		06:35 (B1)	04:50			06:35 (B1)	04:25		
	16:24			17:32	18:32	21	07:08 (B4)	20:37	24	06:59 (B1)	21:36	17	06:52 (B1)	22:10				
23	08:30			07:26	06:13			06:46 (B4)	05:52		06:33 (B1)	04:48			06:37 (B1)	04:26		
	16:26			17:34	18:34	22	07:08 (B4)	20:39	27	07:00 (B1)	21:38	13	06:50 (B1)	22:10				
24	08:29			07:23	06:10			06:46 (B4)	05:49		06:31 (B1)	04:47			06:40 (B1)	04:26		
	16:28			17:37	18:36	21	07:07 (B4)	20:41	30	07:01 (B1)	21:40	7	06:47 (B1)	22:10				
25	08:27			07:21	06:07			06:46 (B4)	05:47		06:30 (B1)	04:45				04:26		
	16:30			17:39	18:38	19	07:05 (B4)	20:43	32	07:02 (B1)	21:42					22:10		
26	08:26			07:18	06:05			06:47 (B4)	05:44		06:28 (B1)	04:44				04:27		
	16:32			17:41	18:40	18	07:05 (B4)	20:45	34	07:02 (B1)	21:43					22:10		
27	08:24			07:16	06:02			06:47 (B4)	05:42		06:28 (B1)	04:42				04:27		
	16:34			17:43	18:43	16	07:03 (B4)	20:47	35	07:03 (B1)	21:45					22:10		
28	08:22			07:13	05:59			06:48 (B4)	05:39		06:27 (B1)	04:41				04:28		
	16:36			17:45	18:45	13	07:01 (B4)	20:49	37	07:04 (B1)	21:47					22:10		
29	08:20				06:57			07:52 (B4)	05:37		06:27 (B1)	04:39				04:28		
	16:39				19:47	6	07:58 (B4)	20:51	38	07:05 (B1)	21:48					22:10		
30	08:18				06:54				05:35		06:25 (B1)	04:38				04:29		
	16:41				19:49				20:53	39	07:04 (B1)	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		106				230			328				762					
Sun reduction		0.13				0.41			0.50				0.57					
Oper. time red.		0.94				0.94			0.94				0.94					
Wind dir. red.		0.64				0.64			0.65				0.65					
Total reduction		0.08				0.25			0.31				0.35					
Total, real		8				57			100				265					

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 flick
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

July		August		September		October	November	December
1	04:30	05:16	06:36 (B1)	06:17		07:17	07:23	08:24
	22:09	21:28	36 07:12 (B1)	20:14		18:54	16:36	15:45
2	04:31	05:17	06:35 (B1)	06:19		07:19	07:25	08:26
	22:09	21:26	38 07:13 (B1)	20:11		18:51	16:34	15:44
3	04:32	05:19	06:35 (B1)	06:21		07:21	07:27	08:28
	22:08	21:24	38 07:13 (B1)	20:09		18:48	16:31	15:43
4	04:33	05:21	06:35 (B1)	06:23		07:23	07:29	08:29
	22:07	21:22	39 07:14 (B1)	20:06		18:46	16:29	15:42
5	04:34	05:23	06:34 (B1)	06:25		07:25	07:31	08:31
	22:07	21:19	39 07:13 (B1)	20:03		18:43	16:27	15:42
6	04:35	05:25	06:34 (B1)	06:27		07:27	07:33	08:32
	22:06	21:17	40 07:14 (B1)	20:01		18:40	16:25	15:41
7	04:36	05:27	06:34 (B1)	06:29		07:29	07:36	08:34
	22:05	21:15	40 07:14 (B1)	19:58		18:38	16:23	15:40
8	04:37	05:29	06:34 (B1)	06:31		07:32	07:38	08:35
	22:04	21:13	40 07:14 (B1)	19:55		18:35	16:21	15:40
9	04:38	05:31	06:34 (B1)	06:33		07:34	07:40	08:37
	22:03	21:11	40 07:14 (B1)	19:53		18:32	16:19	15:39
10	04:39	05:33	06:33 (B1)	06:35		07:36	07:42	08:38
	22:02	21:08	40 07:13 (B1)	19:50		18:30	16:17	15:39
11	04:41	05:35	06:33 (B1)	06:37		07:38	07:44	08:39
	22:01	21:06	40 07:13 (B1)	19:47		18:27	16:15	15:38
12	04:42	05:37	06:34 (B1)	06:39		07:40	07:46	08:40
	22:00	21:04	39 07:13 (B1)	19:45		18:25	16:13	15:38
13	04:43	05:39	06:34 (B1)	06:41		07:42	07:49	08:42
	21:59	21:01	38 07:12 (B1)	19:42		18:22	16:11	15:38
14	04:45	05:41	06:34 (B1)	06:43		07:44	07:51	08:43
	21:58	20:59	38 07:12 (B1)	19:39	3 07:47 (B4)	18:19	16:09	15:38
15	04:46	05:43	06:35 (B1)	06:45		07:39 (B4)	07:46	07:53
	21:57	20:57	36 07:11 (B1)	19:37	12 07:51 (B4)	18:17	16:07	15:38
16	04:48	05:45	06:35 (B1)	06:47		07:37 (B4)	07:48	07:55
	21:55	20:54	36 07:11 (B1)	19:34	15 07:52 (B4)	18:14	16:06	15:38
17	04:49	05:47	06:35 (B1)	06:49		07:35 (B4)	07:50	07:57
	21:54	20:52	34 07:09 (B1)	19:31	18 07:53 (B4)	18:12	16:04	15:38
18	04:51	05:49	06:36 (B1)	06:51		07:34 (B4)	07:52	07:59
	21:52	20:50	32 07:08 (B1)	19:29	20 07:54 (B4)	18:09	16:02	15:38
19	04:52	05:51	06:37 (B1)	06:53		07:33 (B4)	07:55	08:01
	21:51	20:47	29 07:06 (B1)	19:26	21 07:54 (B4)	18:07	16:01	15:38
20	04:54	05:53	06:38 (B1)	06:55		07:33 (B4)	07:57	08:03
	21:49	10 06:59 (B1)	20:45	27 07:05 (B1)	19:23	21 07:54 (B4)	18:04	15:59
21	04:56	06:46 (B1)	05:55	06:40 (B1)	06:57		07:32 (B4)	07:59
	21:48	15 07:01 (B1)	20:42	23 07:03 (B1)	19:20	22 07:54 (B4)	18:02	15:58
22	04:57	06:45 (B1)	05:57	06:42 (B1)	06:59		07:31 (B4)	08:01
	21:46	18 07:03 (B1)	20:40	19 07:01 (B1)	19:18	21 07:52 (B4)	17:59	15:56
23	04:59	06:43 (B1)	05:59	06:45 (B1)	07:01		07:31 (B4)	08:03
	21:45	21 07:04 (B1)	20:37	12 06:57 (B1)	19:15	21 07:52 (B4)	17:57	15:55
24	05:01	06:42 (B1)	06:01		07:03		07:31 (B4)	08:05
	21:43	24 07:06 (B1)	20:35		19:12	20 07:51 (B4)	17:55	15:53
25	05:03	06:40 (B1)	06:03		07:05		07:33 (B4)	07:07
	21:41	27 07:07 (B1)	20:32		19:10	16 07:49 (B4)	16:52	15:52
26	05:04	06:40 (B1)	06:05		07:07		07:36 (B4)	07:10
	21:39	28 07:08 (B1)	20:29		19:07	13 07:49 (B4)	16:50	15:51
27	05:06	06:39 (B1)	06:07		07:09		07:38 (B4)	07:12
	21:38	30 07:09 (B1)	20:27		19:04	8 07:46 (B4)	16:47	15:49
28	05:08	06:38 (B1)	06:09		07:11		07:14	08:19
	21:36	32 07:10 (B1)	20:24		19:02		16:45	15:48
29	05:10	06:38 (B1)	06:11		07:13		07:16	08:21
	21:34	33 07:11 (B1)	20:22		18:59		16:43	15:47
30	05:12	06:37 (B1)	06:13		07:15		07:18	08:22
	21:32	35 07:12 (B1)	20:19		18:56		16:40	15:46
31	05:14	06:37 (B1)	06:15				07:20	08:51
	21:30	35 07:12 (B1)	20:17				16:38	15:47
Potential sun hours	529		469		385		324	247
Total, worst case	308		793		231			556
Sun reduction	0.49		0.50		0.43			0.07
Oper. time red.	0.94		0.94		0.94			0.94
Wind dir. red.	0.65		0.65		0.64			0.64
Total reduction	0.30		0.30		0.26			0.04
Total, real	93		241		59			23

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 22:03	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
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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
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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 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

SHADOW - Calendar

Shadow receptor: Arsmeniki (kad. apz. 76860060006008) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (200)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
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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
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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
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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)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 (B3) 18:19 (B3)	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	20	17:57 (B3) 18:17 (B3)	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	17	17:58 (B3) 18:15 (B3)	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	13	18:01 (B3) 18:14 (B3)	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	5	18:05 (B3) 18:10 (B3)	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	10	17:24 (B3)	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	16	17:22 (B3)	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	19	17:20 (B3)	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 15:39
12	08:44 16:04	07:51 17:09	06:42 18:11	21	17:18 (B3)	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	23	17:17 (B3)	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	25	17:16 (B3)	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	26	17:15 (B3)	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	25	17:15 (B3)	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	08:38 16:13	07:40 17:21	06:28 18:21	26	17:15 (B3)	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	07:37 17:23	06:26 18:23	25	17:15 (B3)	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 18:25	24	17:15 (B3)	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:25	18:10 (B3)	07:54 18:06	5	18:05 (B3)	08:01 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	06:20 18:28	22	17:16 (B3)	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	18:05 (B3)	07:56 18:04	14	18:03 (B3)	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	21	17:16 (B3)	05:56 20:34	04:51 21:34	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	18:03 (B3)	07:58 18:01	17	18:03 (B3)	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	18	17:17 (B3)	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	18:01 (B3)	08:01 17:59	20	18:01 (B3)	08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	15	17:18 (B3)	05:51 20:38	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	18:00 (B3)	08:03 17:56	22	18:00 (B3)	08:09 15:54	08:49 15:39
24	08:28 16:27	07:23 17:36	06:10 18:36	8	17:22 (B3)	05:49 20:40	04:46 21:40	04:25 22:10	06:01 21:43	07:03 20:34	07:03 19:12	17:59 (B3)	08:05 17:54	23	17:59 (B3)	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 21:42	06:03 20:32	07:05 19:09	17:58 (B3)	07:07 16:52	24	18:22 (B3)	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	17:57 (B3)	07:09 16:49	25	18:22 (B3)	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	17:57 (B3)	07:11 16:47	25	18:22 (B3)	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	17:56 (B3)	07:13 16:45	26	18:22 (B3)	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	17:56 (B3)	07:16 16:42	25	18:21 (B3)	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	05:11 21:31	06:13 20:19	07:15 18:56	17:56 (B3)	07:18 16:40	24	18:20 (B3)	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				324							250		77				
Sun reduction				0.41							0.43		0.26				
Oper. time red.				0.94							0.94		0.94				
Wind dir. red.				0.65							0.65		0.65				
Total reduction				0.25							0.26		0.16				
Total, real				82							66		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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48 16:45	08:15 16:45	07:11 17:48 26	07:41 (B14) 08:07 (B14) 19:53	06:49 05:30 20:55	04:36 21:53 22:09	04:30 21:53 22:09	05:16 21:28 20:14	06:17 21:28 20:14	07:17 21:19 18:54	08:30 (B14) 16:36 15:45	07:23 08:26 15:44
2	08:51 15:50 16:48	08:13 16:48	07:08 17:50 27	07:40 (B14) 08:07 (B14) 19:55	06:46 05:30 20:58	04:35 21:54 22:09	04:31 21:54 22:09	05:18 21:26 20:11	06:19 21:26 20:11	07:19 18:51 13	08:24 (B14) 16:34 15:44	07:25 08:28 15:43
3	08:50 15:51 16:50	08:11 16:50	07:06 17:52 28	07:40 (B14) 08:08 (B14) 19:57	06:44 05:26 21:00	04:34 21:55 22:08	04:32 21:55 22:08	05:20 21:24 20:09	06:21 20:09 18:48	07:21 18:48 18	08:21 (B14) 16:32 15:43	07:27 08:29 15:43
4	08:50 15:52 16:52	08:09 16:52	07:03 17:54 27	07:40 (B14) 08:07 (B14) 19:59	06:41 05:24 21:02	04:33 21:57 22:07	04:33 21:57 22:07	05:22 21:22 20:06	06:23 20:06 18:46	07:23 18:46 21	08:19 (B14) 16:30 15:43	07:29 08:31 15:43
5	08:49 15:54 16:54	08:07 16:54	07:01 17:56 28	07:39 (B14) 08:07 (B14) 20:01	06:38 05:21 21:04	04:32 21:58 22:07	04:34 21:58 22:07	05:24 21:20 20:04	06:25 20:04 18:43	07:25 18:43 23	08:18 (B14) 16:27 15:42	07:31 08:32 15:42
6	08:49 15:55 16:57	08:05 16:57	06:58 17:58 27	07:40 (B14) 08:07 (B14) 20:03	06:36 05:19 21:06	04:31 21:59 22:06	04:35 21:59 22:06	05:25 21:17 20:01	06:27 20:01 18:40	07:28 18:40 25	08:17 (B14) 16:25 15:41	07:34 08:34 15:41
7	08:48 15:56 16:59	08:03 16:59	06:55 18:01 26	07:40 (B14) 08:06 (B14) 20:06	06:33 05:17 21:08	04:30 22:00 22:05	04:36 22:05 21:15	05:27 19:58 18:38	06:29 18:38 26	07:30 18:38 26	08:16 (B14) 16:23 15:40	07:36 08:35 15:40
8	08:48 15:58 17:01	08:01 17:01	06:53 18:03 24	07:40 (B14) 08:04 (B14) 20:08	06:30 05:15 21:10	04:29 22:01 22:04	04:37 22:04 21:13	05:29 19:56 18:35	06:31 18:35 27	07:32 18:35 27	08:15 (B14) 16:21 15:40	07:38 08:37 15:40
9	08:47 16:00 17:03	07:58 17:03	06:50 18:05 22	07:42 (B14) 08:04 (B14) 20:10	06:28 05:13 21:12	04:29 22:02 22:03	04:38 22:03 21:11	05:31 19:53 18:33	06:33 18:33 28	07:34 18:33 28	08:15 (B14) 16:19 15:39	07:40 08:38 15:39
10	08:46 16:01 17:05	07:56 17:05	06:48 18:07 19	07:43 (B14) 08:02 (B14) 20:12	06:25 05:11 21:14	04:28 22:03 22:02	04:40 22:03 21:08	05:33 19:50 18:30	06:35 18:30 27	07:36 18:30 27	08:15 (B14) 16:17 15:39	07:42 08:39 15:39
11	08:45 16:03 17:08	07:54 17:08	06:45 18:09 15	07:44 (B14) 07:59 (B14) 20:14	06:22 05:09 21:16	04:27 22:04 22:01	04:41 22:04 21:06	05:35 19:48 18:27	06:37 18:27 28	07:38 18:27 28	08:14 (B14) 16:15 15:39	07:44 08:40 15:39
12	08:44 16:05 17:10	07:52 17:10	06:42 18:11 8	07:48 (B14) 07:56 (B14) 20:16	06:20 05:18 21:18	04:27 22:05 22:00	04:42 22:05 21:04	05:37 19:45 18:25	06:39 18:25 27	07:40 18:25 27	08:14 (B14) 16:13 15:38	07:46 08:42 15:38
13	08:43 16:06 17:12	07:50 17:12	06:40 18:13 13	07:56 (B14) 08:02 (B14) 20:18	06:17 05:15 21:20	04:27 22:06 21:59	04:44 22:06 21:02	05:39 19:42 18:22	06:41 18:22 26	07:42 18:22 26	08:14 (B14) 16:11 15:38	07:49 08:43 15:38
14	08:42 16:08 17:14	07:47 17:14	06:37 18:15 15	07:57 (B14) 08:03 (B14) 20:20	06:15 05:13 21:22	04:26 22:07 21:58	04:45 22:07 21:05	05:41 19:39 18:20	06:43 18:20 25	07:44 18:20 25	08:14 (B14) 16:10 15:38	07:51 08:44 15:38
15	08:41 16:10 17:17	07:45 17:17	06:34 18:18 16	08:04 (B14) 08:09 (B14) 20:22	06:12 05:11 21:24	04:26 22:07 21:57	04:46 22:07 21:05	05:43 19:37 18:17	06:45 18:17 23	07:46 18:17 23	08:16 (B14) 16:08 15:38	07:53 08:45 15:38
16	08:40 16:12 17:19	07:43 17:19	06:32 18:20 17	08:10 (B14) 08:15 (B14) 20:24	06:10 05:09 21:26	04:26 22:08 21:55	04:48 22:08 21:05	05:45 19:34 18:15	06:47 18:15 19	07:48 18:15 19	08:18 (B14) 16:06 15:38	07:55 08:46 15:38
17	08:39 16:14 17:21	07:40 17:21	06:29 18:22 18	08:16 (B14) 08:21 (B14) 20:26	06:09 05:08 21:27	04:25 22:08 21:54	04:49 22:08 21:05	05:47 19:31 18:12	06:49 18:12 15	07:50 18:12 15	08:20 (B14) 16:04 15:38	07:57 08:46 15:38
18	08:38 16:16 17:23	07:38 17:23	06:26 18:24 19	08:22 (B14) 08:27 (B14) 20:28	06:08 05:07 21:29	04:25 22:09 21:52	04:51 22:09 21:05	05:49 19:29 18:09	06:51 18:09 11	07:53 18:09 11	08:22 (B14) 16:03 15:38	07:59 08:47 15:38
19	08:36 16:18 17:26	07:36 17:26	06:24 18:26 20	08:28 (B14) 08:33 (B14) 20:30	06:07 05:06 21:31	04:25 22:09 21:51	04:53 22:09 21:05	05:51 19:26 18:07	06:53 18:07 4	07:55 18:07 4	08:25 (B14) 16:01 15:38	07:55 08:48 15:38
20	08:35 16:20 17:28	07:33 17:28	06:21 18:28 21	08:34 (B14) 08:39 (B14) 20:32	06:06 05:05 21:33	04:25 22:10 21:49	04:54 22:10 21:05	05:53 19:23 18:04	06:55 18:04 15:59	07:57 18:04 15:59	08:26 (B14) 16:00 15:38	07:57 08:49 15:38
21	08:33 16:22 17:30	07:31 17:30	06:18 18:30 22	08:40 (B14) 08:45 (B14) 20:34	06:05 05:04 21:35	04:25 22:10 21:48	04:56 22:10 21:05	05:55 19:21 18:02	06:57 18:02 15:58	07:59 18:02 15:58	08:27 (B14) 16:00 15:38	07:59 08:50 15:38
22	08:32 16:24 17:32	07:28 17:32	06:16 18:32 23	08:46 (B14) 08:51 (B14) 20:36	06:04 05:03 21:37	04:26 22:10 21:46	04:58 22:10 21:05	05:57 19:18 18:00	06:59 18:00 15:56	08:01 18:00 15:56	08:28 (B14) 16:00 15:38	08:01 08:51 15:38
23	08:30 16:26 17:34	07:26 17:34	06:13 18:34 24	08:53 (B14) 08:58 (B14) 20:38	06:03 05:02 21:38	04:26 22:10 21:45	04:59 22:10 21:05	05:59 19:15 17:57	07:01 17:57 15:55	08:03 17:57 15:55	08:29 (B14) 16:00 15:38	08:02 08:52 15:38
24	08:29 16:28 17:37	07:23 17:37	06:10 18:36 25	09:00 (B14) 09:05 (B14) 20:40	06:02 05:01 21:40	04:26 22:10 21:43	05:01 22:10 21:05	06:01 19:12 17:55	07:03 17:55 15:53	08:05 17:55 15:53	08:30 (B14) 16:00 15:38	08:03 08:53 15:38
25	08:27 16:30 17:39	07:21 17:39	06:08 18:39 26	09:06 (B14) 09:11 (B14) 20:42	06:01 05:00 21:42	04:27 22:10 21:41	05:03 22:10 21:05	06:03 19:10 16:52	07:05 16:52 15:52	07:07 16:52 15:52	08:31 (B14) 16:00 15:38	08:04 08:54 15:38
26	08:26 16:32 17:41	07:18 17:41	06:05 18:41 27	09:12 (B14) 09:17 (B14) 20:44	06:00 05:00 21:43	04:27 22:10 21:39	05:05 22:10 21:05	06:05 19:07 16:50	07:07 16:50 15:51	07:10 16:50 15:51	08:32 (B14) 16:00 15:38	08:05 08:55 15:38
27	08:24 16:34 17:43	07:16 17:43	06:02 18:43 28	09:18 (B14) 09:23 (B14) 20:46	06:00 05:00 21:44	04:27 22:10 21:38	05:06 22:10 21:05	06:07 19:04 16:48	07:09 16:48 15:50	07:12 16:48 15:50	08:33 (B14) 16:00 15:38	08:06 08:56 15:38
28	08:22 16:37 17:45	07:13 17:45	06:00 18:45 29	09:24 (B14) 09:29 (B14) 20:48	06:00 05:00 21:45	04:28 22:10 21:36	05:08 22:10 21:05	06:09 19:02 16:45	07:11 16:45 15:49	07:14 16:45 15:49	08:34 (B14) 16:00 15:38	08:07 08:57 15:38
29	08:20 16:39 17:49	07:11 17:49	06:00 18:46 30	09:30 (B14) 09:35 (B14) 20:50	06:00 05:00 21:46	04:29 22:10 21:34	05:10 22:10 21:05	06:11 18:59 16:43	07:13 16:43 15:48	07:16 16:43 15:48	08:35 (B14) 16:00 15:38	08:08 08:58 15:38
30	08:19 16:41 17:51	07:10 17:51	06:00 18:47 31	09:36 (B14) 09:41 (B14) 20:52	06:00 05:00 21:47	04:29 22:10 21:32	05:12 22:10 21:05	06:13 18:56 16:41	07:15 16:41 15:47	07:18 16:41 15:47	08:36 (B14) 16:00 15:38	08:09 08:59 15:38
31	08:17 16:43	07:09 17:53	06:00 18:48	09:42 (B14) 09:47 (B14) 20:54	06:00 05:00 21:48	04:30 22:10 21:30	05:14 22:10 21:05	06:15 18:58 16:38	07:17 16:38 15:46	07:20 16:38 15:46	08:37 (B14) 16:00 15:38	08:10 08:60 15:38
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction		106	277							388		
Oper. time red.		0.20	0.41							0.26		
Wind dir. red.		0.94	0.94							0.94		
Total reduction		0.63	0.63							0.63		
Total, real		0.12	0.24							0.15		
		13	67							59		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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 17:48	08:15 16:45 17:48	07:11 17:48 19:53	07:37 (B14) 19:53 20:55	06:49 20:55 21:53	05:33 21:53 22:09	04:36 22:09 21:28	04:30 21:28 20:14	05:16 20:14 18:54	06:17 18:54 08:38 (B14)	07:23 16:36 15:45	08:24 15:45 15:45
2	08:50 15:50 17:50	08:13 16:48 17:50	07:08 19:50 20:58	07:35 (B14) 20:58 21:54	06:46 21:54 22:09	05:30 22:09 21:26	04:35 21:26 20:11	04:31 20:11 18:51	05:18 18:51 08:38 (B14)	06:19 16:34 15:44	07:25 15:44 15:44	08:26 15:44 15:44
3	08:50 15:51 17:51	08:11 16:50 17:51	07:06 19:52 20:58	07:34 (B14) 20:58 21:54	06:44 21:54 22:09	05:28 22:09 21:24	04:34 21:24 20:09	04:32 20:09 18:48	05:20 18:48 08:38 (B14)	06:21 16:32 15:43	07:27 15:43 15:43	08:28 15:43 15:43
4	08:50 15:52 17:52	08:09 16:52 17:52	07:03 19:54 20:58	07:32 (B14) 20:58 21:54	06:41 21:54 22:09	05:26 22:09 21:22	04:33 21:22 20:06	04:33 20:06 18:46	05:22 18:46 08:37 (B14)	06:23 16:30 15:43	07:29 15:43 15:43	08:29 15:43 15:43
5	08:49 15:54 17:54	08:07 16:54 17:54	07:01 19:56 20:58	07:31 (B14) 20:58 21:54	06:38 21:54 22:09	05:24 22:09 21:20	04:32 21:20 20:04	04:34 20:04 18:43	05:23 18:43 08:37 (B14)	06:25 16:27 15:42	07:31 15:42 15:42	08:31 15:42 15:42
6	08:49 15:55 17:55	08:05 16:57 17:55	06:58 19:58 20:58	07:31 (B14) 20:58 21:54	06:36 21:54 22:09	05:21 22:09 21:17	04:31 21:17 20:01	04:35 20:01 18:40	05:25 18:40 08:37 (B14)	06:27 16:25 15:41	07:33 15:41 15:41	08:32 15:41 15:41
7	08:48 15:56 17:56	08:03 16:59 17:56	06:55 19:59 20:58	07:30 (B14) 20:58 21:54	06:33 21:54 22:09	05:19 22:09 21:15	04:30 21:15 20:00	04:36 20:00 18:38	05:27 18:38 08:36 (B14)	06:29 16:23 15:40	07:36 15:40 15:40	08:34 15:40 15:40
8	08:48 15:58 17:58	08:01 17:01 17:58	06:53 19:59 20:58	07:29 (B14) 20:58 21:54	06:30 21:54 22:09	05:17 22:09 21:13	04:29 21:13 20:00	04:37 20:00 18:35	05:29 18:35 08:35 (B14)	06:31 16:21 15:40	07:38 15:40 15:40	08:35 15:40 15:40
9	08:47 16:00 17:59	07:58 17:03 17:59	06:50 19:59 20:58	07:30 (B14) 20:58 21:54	06:28 21:54 22:09	05:15 22:09 21:11	04:29 21:11 20:00	04:38 20:00 18:33	05:31 18:33 08:35 (B14)	06:33 16:19 15:39	07:40 15:39 15:39	08:37 15:39 15:39
10	08:46 16:01 17:59	07:56 17:05 17:59	06:48 19:59 20:58	07:29 (B14) 20:58 21:54	06:25 21:54 22:09	05:13 22:09 21:08	04:28 21:08 20:00	04:40 20:00 18:30	05:33 18:30 08:34 (B14)	06:35 16:17 15:39	07:42 15:39 15:39	08:38 15:39 15:39
11	08:45 16:03 17:59	07:54 17:08 17:59	06:45 19:59 20:58	07:29 (B14) 20:58 21:54	06:22 21:54 22:09	05:11 22:09 21:06	04:27 21:06 20:00	04:41 20:00 18:27	05:35 18:27 08:32 (B14)	06:37 16:15 15:39	07:44 15:39 15:39	08:39 15:39 15:39
12	08:44 16:05 17:59	07:52 17:10 17:59	06:42 19:59 20:58	07:30 (B14) 20:58 21:54	06:20 21:54 22:09	05:09 22:09 21:18	04:27 21:18 20:00	04:42 20:00 18:25	05:37 18:25 08:30 (B14)	06:39 16:13 15:38	07:46 15:38 15:38	08:40 15:38 15:38
13	08:43 16:06 17:59	07:50 17:12 17:59	06:40 19:59 20:58	07:30 (B14) 20:58 21:54	06:17 21:54 22:09	05:07 22:09 21:15	04:27 21:15 20:00	04:44 20:00 18:22	05:39 18:22 08:28 (B14)	06:41 16:11 15:38	07:49 15:38 15:38	08:42 15:38 15:38
14	08:42 16:08 17:59	07:47 17:14 17:59	06:37 19:59 20:58	07:30 (B14) 20:58 21:54	06:15 21:54 22:09	05:05 22:09 21:22	04:26 21:22 20:00	04:45 20:00 18:20	05:41 18:20 08:24 (B14)	06:43 16:10 15:38	07:51 15:38 15:38	08:43 15:38 15:38
15	08:41 16:10 17:59	07:45 17:17 17:59	06:34 19:59 20:58	07:32 (B14) 20:58 21:54	06:12 21:54 22:09	05:03 22:09 21:24	04:26 21:24 20:00	04:46 20:00 18:17	05:43 18:17 08:24 (B14)	06:45 16:08 15:38	07:53 15:38 15:38	08:44 15:38 15:38
16	08:40 16:12 17:59	07:43 17:19 17:59	06:32 19:59 20:58	07:32 (B14) 20:58 21:54	06:09 21:54 22:09	05:01 22:09 21:25	04:26 21:25 20:00	04:48 20:00 18:15	05:45 18:15 08:24 (B14)	06:47 16:06 15:38	07:55 15:38 15:38	08:45 15:38 15:38
17	08:39 16:14 17:59	07:40 17:21 17:59	06:29 19:59 20:58	07:34 (B14) 20:58 21:54	06:07 21:54 22:09	04:59 22:09 21:27	04:25 21:27 20:00	04:49 20:00 18:12	05:47 18:12 08:24 (B14)	06:49 16:04 15:38	07:57 15:38 15:38	08:46 15:38 15:38
18	08:38 16:16 17:59	07:38 17:23 17:59	06:26 19:59 20:58	07:36 (B14) 20:58 21:54	06:04 21:54 22:09	04:57 22:09 21:29	04:25 21:29 20:00	04:51 20:00 18:09	05:49 18:09 08:24 (B14)	06:51 16:03 15:38	07:59 15:38 15:38	08:46 15:38 15:38
19	08:36 16:18 17:59	07:36 17:26 17:59	06:24 19:59 20:58	07:47 (B14) 20:58 21:54	06:02 21:54 22:09	04:55 22:09 21:31	04:25 21:31 20:00	04:53 20:00 18:07	05:51 18:07 08:24 (B14)	06:53 16:01 15:38	07:55 15:38 15:38	08:47 15:38 15:38
20	08:35 16:20 17:59	07:33 17:28 17:59	06:21 19:59 20:58	07:47 (B14) 20:58 21:54	06:02 21:54 22:09	04:55 22:09 21:33	04:25 21:33 20:00	04:54 20:00 18:04	05:53 18:04 08:24 (B14)	06:55 15:59 15:39	07:57 15:39 15:39	08:48 15:39 15:39
21	08:33 16:22 17:59	07:31 17:30 17:59	06:18 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:52 22:09 21:35	04:25 21:35 20:00	04:56 20:00 18:02	05:55 18:02 08:01	06:57 15:58 15:49	07:59 15:49 15:49	08:48 15:49 15:49
22	08:32 16:24 17:59	07:28 17:32 17:59	06:16 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:50 22:09 21:37	04:26 21:37 20:00	04:58 20:00 18:00	05:57 18:00 08:03	06:59 15:56 15:40	07:59 15:40 15:40	08:49 15:40 15:40
23	08:30 16:26 17:59	07:26 17:34 17:59	06:13 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:48 22:09 21:38	04:26 21:38 20:00	04:59 20:00 18:03	05:59 18:03 08:05	06:59 15:55 15:40	07:59 15:40 15:40	08:50 15:40 15:40
24	08:29 16:28 17:59	07:23 17:37 17:59	06:10 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:47 22:09 21:40	04:26 21:40 20:00	05:01 20:00 18:03	06:01 18:03 08:05	06:59 15:53 15:41	07:59 15:41 15:41	08:50 15:41 15:41
25	08:27 16:30 17:59	07:21 17:39 17:59	06:08 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:45 22:09 21:42	04:27 21:42 20:00	06:03 20:00 18:03	06:03 18:03 08:05	06:59 15:52 15:41	07:59 15:41 15:41	08:50 15:41 15:41
26	08:26 16:32 17:59	07:18 17:41 17:59	06:05 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:44 22:09 21:43	04:27 21:43 20:00	06:05 20:00 18:03	06:05 18:03 08:05	06:59 15:51 15:42	07:59 15:42 15:42	08:51 15:42 15:42
27	08:24 16:34 17:59	07:16 17:43 17:59	06:02 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:42 22:09 21:45	04:27 21:45 20:00	06:06 20:00 18:03	06:06 18:03 08:05	06:59 15:51 15:42	07:59 15:42 15:42	08:51 15:42 15:42
28	08:22 16:37 17:59	07:13 17:45 17:59	06:00 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:41 22:09 21:47	04:28 21:47 20:00	06:07 20:00 18:03	06:07 18:03 08:05	06:59 15:51 15:42	07:59 15:42 15:42	08:51 15:42 15:42
29	08:20 16:39 17:59	07:11 17:49 17:59	06:57 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:40 22:09 21:48	04:29 21:48 20:00	06:11 20:00 18:03	06:11 18:03 08:05	06:59 15:51 15:42	07:59 15:42 15:42	08:51 15:42 15:42
30	08:19 16:41 17:59	07:09 17:54 17:59	06:54 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:38 22:09 21:50	04:29 21:50 20:00	06:12 20:00 18:03	06:12 18:03 08:05	06:59 15:51 15:42	07:59 15:42 15:42	08:51 15:42 15:42
31	08:17 16:43 17:59	07:07 17:54 17:59	06:51 19:59 20:58	07:47 (B14) 20:58 21:54	06:01 21:54 22:09	04:37 22:09 21:51	04:30 21:51 20:00	06:15 20:00 18:03	06:15 18:03 08:05	06:59 15:51 15:42	07:59 15:42 15:42	08:51 15:42 15:42
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		17		457					116	367		
Sun reduction		0.20		0.41					0.43	0.26		
Oper. time red.		0.94		0.94					0.94	0.94		
Wind dir. red.		0.62		0.62					0.62	0.62		
Total reduction		0.12		0.24					0.25	0.15		
Total, real		2		110					29	56		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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	08:07 17:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:54	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

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

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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
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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
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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 21:52	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
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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
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
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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												
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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:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle 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
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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
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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
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10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:06	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:05 21:21	04:26 22:06	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:50	08:50 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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	06:39 (B25) 06:51 (B25)
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 20:59	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 21:56
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
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
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	04:27 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	06:48 (B25) 06:51 (B25)	05:09 21:18
13	08:43 16:06	07:49 17:12	06:40 18:13	06:17 20:18	06:43 (B25) 06:56 (B25)	05:07 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	06:40 (B25) 06:57 (B25)	05:05 21:22
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	06:39 (B25) 06:59 (B25)	05:03 21:23
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	06:37 (B25) 07:00 (B25)	05:01 21:25
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	06:36 (B25) 07:01 (B25)	04:59 21:27
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:35 (B25) 07:00 (B25)	04:57 21:29
19	08:36 16:18	07:35 17:26	06:24 18:26	06:02 20:30	06:35 (B25) 07:01 (B25)	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	06:34 (B25) 07:02 (B25)	04:53 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:33 (B25) 07:01 (B25)	04:52 21:35
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:34 (B25) 07:01 (B25)	04:50 21:36
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:33 (B25) 07:00 (B25)	04:48 21:38
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:33 (B25) 07:00 (B25)	04:47 21:40
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	06:34 (B25) 07:00 (B25)	04:45 21:42
26	08:25 16:32	07:18 17:41	06:05 18:41	05:44 20:45	06:34 (B25) 06:58 (B25)	04:44 21:43
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:34 (B25) 06:57 (B25)	04:42 21:45
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	06:35 (B25) 06:57 (B25)	04:41 21:46
29	08:20 16:39		06:57 19:47	05:37 20:51	06:37 (B25) 06:55 (B25)	04:40 21:48
30	08:18 16:41		06:54 19:49	05:35 20:53	06:38 (B25) 06:54 (B25)	04:38 21:49
31	08:17 16:43		06:51 19:51		04:37 21:51	05:27 (B24) 06:00 (B24)
Potential sun hours	235	266	366	426	508	528
Total, worst case				418	256	1179
Sun reduction				0.50	0.57	0.56
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.66	0.67	0.67
Total reduction				0.31	0.36	0.35
Total, real				129	92	417

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:50/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

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

	July	August	September	October	November	December
1	04:30 22:09 40	05:30 (B24) 06:10 (B24) 21:28	05:16 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	04:31 22:08 39	05:30 (B24) 06:09 (B24) 21:26	05:18 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	04:32 22:08 39	05:30 (B24) 06:09 (B24) 21:24	05:20 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	04:33 22:07 39	05:31 (B24) 06:10 (B24) 21:22	05:22 20:06	07:23 18:46	07:29 16:29	08:29 15:43
5	04:34 22:07 39	05:31 (B24) 06:10 (B24) 21:19	05:23 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	04:35 22:06 38	05:32 (B24) 06:10 (B24) 21:17	05:25 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05 37	05:32 (B24) 06:09 (B24) 21:15	05:27 19:58	07:29 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04 36	05:33 (B24) 06:09 (B24) 21:13	05:29 19:55	07:32 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03 36	05:33 (B24) 06:09 (B24) 21:11	05:31 19:53	07:34 18:32	07:40 16:19	08:36 15:39
10	04:40 22:02 36	05:33 (B24) 06:09 (B24) 21:08	05:33 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	04:41 22:01 34	05:35 (B24) 06:09 (B24) 21:06	05:35 19:50 5	07:38 18:27	07:44 16:15	08:39 15:39
12	04:42 22:00 34	05:35 (B24) 06:09 (B24) 21:04	05:37 19:47 13	07:40 18:25	07:46 16:13	08:40 15:38
13	04:44 21:59 32	05:36 (B24) 06:08 (B24) 21:01	05:39 19:42 17	07:42 18:22	07:48 16:11	08:41 15:38
14	04:45 21:58 31	05:36 (B24) 06:07 (B24) 20:59	05:41 19:39 19	07:44 18:20	07:51 16:09	08:43 15:38
15	04:46 21:56 29	05:38 (B24) 06:07 (B24) 20:57	05:43 19:37 21	07:46 18:17	07:53 16:08	08:44 15:38
16	04:48 21:55 28	05:38 (B24) 06:06 (B24) 20:54	05:45 19:34 23	07:48 18:14	07:55 16:06	08:44 15:38
17	04:49 21:54 26	05:39 (B24) 06:05 (B24) 20:52	05:47 19:31 25	07:50 18:12	07:57 16:04	08:45 15:38
18	04:51 21:52 23	05:41 (B24) 06:04 (B24) 20:49	05:49 19:29 26	07:52 18:09	07:59 16:03	08:46 15:38
19	04:53 21:51 21	05:42 (B24) 06:03 (B24) 20:47	05:51 19:26 27	07:55 18:07	08:01 16:01	08:47 15:38
20	04:54 21:49 18	05:44 (B24) 06:02 (B24) 20:45	05:53 19:23 27	07:57 18:04	08:03 15:59	08:48 15:39
21	04:56 21:48 14	05:45 (B24) 06:01 (B24) 20:42	05:55 19:20 28	07:59 18:02	08:05 15:58	08:48 15:39
22	04:58 21:46 8	05:49 (B24) 05:57 (B24) 20:40	05:57 19:18 28	08:01 18:00	08:07 15:56	08:49 15:40
23	04:59 21:44 05:01	05:59 (B24) 20:37 06:01	05:59 19:15 27	08:03 17:57 08:05	08:09 15:55 08:11	08:49 15:40 08:50
24	21:43 05:03 21:41	20:35 06:03 20:32	27 19:12 25	17:55 07:07 16:52	15:53 08:13 15:52	15:41 08:50 15:41
25	05:05 21:39 05:06	06:05 20:29 06:07	24 19:07 06:39 (B25)	07:07 16:50 07:09	08:15 15:51 08:17	08:50 15:42 08:51
26	21:37 05:08 21:36	20:27 06:09 20:24	22 19:04 20	16:48 07:11 19:02	15:50 08:19 15:48	15:43 08:51 15:44
27	05:10 21:34 05:12	06:11 20:22 06:13	17 18:59 06:43 (B25)	07:13 16:43 07:15	08:21 15:47 08:22	08:51 15:45 08:51
28	21:32 05:14 21:30	20:19 06:15 20:17	13 18:56 06:56 (B25)	16:41 07:20 16:38	15:46 08:51 15:47	15:46 08:51 15:47
Potential sun hours	529	469	384	324	248	216
Total, worst case	677	434				
Sun reduction	0.49	0.50				
Oper. time red.	0.94	0.94				
Wind dir. red.	0.67	0.66				
Total reduction	0.31	0.31				
Total, real	211	133				

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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