

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Sunshine probability S (Average daily sunshine hours) []
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1.01 1.91 4.85 7.09 9.29 9.83 8.40 7.53 5.47 2.70 0.68 0.49

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	08:57 (B14) 17:48	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
2	08:51 15:49	08:13 16:48	08:58 (B14) 17:50	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
3	08:50 15:51	08:11 16:50	08:59 (B14) 17:52	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
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21	08:33 16:22	07:31 17:30	08:03 17:58	06:53 20:08	06:30 21:10	05:17 22:01	04:29 22:04	04:37 22:13	05:29 21:13	06:31 19:56	07:32 18:38	07:38 16:23
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Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	179	85									267	
Sun reduction	0.13	0.20									0.08	
Oper. time red.	0.98	0.98									0.98	
Wind dir. red.	0.59	0.59									0.59	
Total reduction	0.08	0.12									0.05	
Total, real	14	10									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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
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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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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 05:23/4.0.531

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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

		January	February	March		April	May	June	July	August	September		October		November	December	
1	08:50 15:48	08:14 16:45	07:10 17:47			06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14		07:17 18:53	25	17:48 (B3) 18:13 (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	17:47 (B3) 18:13 (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	17:47 (B3) 18:12 (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	24	17:48 (B3) 18:12 (B3)	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	9	17:18 (B3) 17:27 (B3)	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	22	17:49 (B3) 18:11 (B3)	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	14	17:15 (B3) 17:29 (B3)	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	20	17:49 (B3) 18:09 (B3)	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	18	17:14 (B3) 17:32 (B3)	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	16	17:50 (B3) 18:06 (B3)	07:35 16:23	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	21	17:12 (B3) 17:33 (B3)	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	12	17:51 (B3) 18:03 (B3)	07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	23	17:11 (B3) 17:34 (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	7	17:54 (B3) 18:01 (B3)	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	25	17:10 (B3) 17:35 (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	24	17:10 (B3) 17:34 (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 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	25	17:09 (B3) 17:34 (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	25	17:08 (B3) 17:33 (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	17:09 (B3) 17:34 (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	23	17:09 (B3) 17:32 (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	22	17:09 (B3) 17:31 (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	20	17:11 (B3) 17:31 (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	17	17:12 (B3) 17:29 (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	13	17:13 (B3) 17:26 (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		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	4	17:18 (B3) 17:22 (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		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		07:59 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	17:58 (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	17:55 (B3) 18:11 (B3)	07:07 16:52	16		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	17:53 (B3) 18:12 (B3)	07:09 16:49	19		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	17:51 (B3) 18:13 (B3)	07:11 16:47	22		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	17:50 (B3) 18:13 (B3)	07:13 16:45	23		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	17:49 (B3) 18:13 (B3)	07:16 16:42	24		08:20 15:47	08:51 15:44
30	08:18 16:40		06:54 19:48			05:34 20:53	04:38 21:49	04:29 22:09	05:11 21:31	06:13 20:19	07:15 18:56	17:48 (B3) 18:13 (B3)	07:18 16:40	25		08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:50				04:36 21:51		05:13 21:29	06:15 20:16			07:20 16:38			08:51 15:46	
Potential sun hours	235	266	366		426	508	529	529	469	385		324		247	216		
Total, worst case			308								140	177					
Sun reduction			0.41								0.43	0.26					
Oper. time red.			0.98								0.98	0.98					
Wind dir. red.			0.65								0.65	0.65					
Total reduction			0.26								0.27	0.16					
Total, real			81								38	29					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
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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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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	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
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Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		188	104							293		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.98	0.98							0.98		
Wind dir. red.		0.63	0.63							0.63		
Total reduction		0.12	0.25							0.16		
Total, real		23	26							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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	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	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	07:47 (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	07:48 (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	07:27 16:32	08:28 15:43	
4	08:50 15:52	08:09 16:52	07:03 17:54	07:48 (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	07:29 16:30	08:29 15:43	
5	08:49 15:54	08:07 16:54	07:01 17:56	07:49 (B14) 18:07 (B14)	06:38 20:01	04:32 21:04	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	07:51 (B14) 18:05 (B14)	06:36 20:03	05:21 21:06	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	07:54 (B14) 08:01 (B14)	06:33 20:06	05:19 21:08	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:28 (B14) 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	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:25 (B14) 16:21	08:38 15:40	
9	08:47 16:00	07:58 17:03	06:50 18:05		06:28 20:10	05:15 21:12	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:24 (B14) 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	04:40 22:03	05:33 21:09	06:35 19:50	07:36 18:30	08:43 (B14) 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	04:41 22:04	05:35 21:06	06:37 19:48	07:38 18:27	08:21 (B14) 16:15	08:44 (B14) 15:39	
12	08:44 16:05	07:52 17:10	06:42 18:11		06:20 20:16	05:09 21:18	04:42 22:05	05:37 21:04	06:39 19:45	07:40 18:25	08:20 (B14) 16:13	08:40 (B14) 15:38	
13	08:43 16:06	07:50 17:12	06:40 18:13		06:17 20:18	05:07 21:20	04:44 22:06	05:39 21:02	06:41 19:42	07:42 18:22	08:20 (B14) 16:11	08:42 (B14) 15:38	
14	08:42 16:08	07:47 17:14	06:37 18:16		06:15 20:20	05:05 21:22	04:45 22:07	05:41 21:58	06:43 20:59	07:44 18:20	08:19 (B14) 16:10	08:43 (B14) 15:38	
15	08:41 16:10	07:45 17:17	06:34 18:18		06:12 20:22	05:03 21:24	04:46 22:07	05:43 21:57	06:45 20:57	07:46 18:17	08:19 (B14) 16:08	08:44 (B14) 15:38	
16	08:40 16:12	07:43 17:19	06:32 18:20		06:09 20:24	05:01 21:26	04:48 22:08	05:45 21:55	06:47 20:54	07:48 18:15	08:19 (B14) 16:06	08:45 (B14) 15:38	
17	08:39 16:14	07:40 17:21	06:29 18:22		06:07 20:26	04:59 21:27	04:49 22:08	05:47 21:54	06:49 20:52	07:50 18:12	08:20 (B14) 16:04	08:46 (B14) 15:38	
18	08:38 16:16	07:38 17:23	06:26 18:24		06:04 20:28	04:57 21:29	04:51 22:09	05:49 21:52	06:51 20:50	07:53 18:09	08:22 (B14) 16:03	08:47 (B14) 15:38	
19	08:36 16:18	07:36 17:26	06:24 18:26	08:03 (B14) 08:04 (B14)	06:02 20:31	04:55 21:31	04:53 22:09	05:51 21:51	06:53 20:47	07:55 18:07	08:25 (B14) 16:01	08:49 (B14) 15:38	
20	08:35 16:20	07:33 17:28	06:21 18:28	08:00 (B14) 08:07 (B14)	05:59 20:33	04:53 21:33	04:54 22:10	05:53 21:49	06:55 20:45	07:57 19:23	08:27 (B14) 15:59	08:48 (B14) 15:39	
21	08:33 16:22	07:31 17:30	06:18 18:30	07:58 (B14) 08:09 (B14)	05:57 20:35	04:52 21:35	04:56 22:10	05:55 21:48	06:57 20:42	07:59 19:21	08:29 (B14) 15:58	08:50 (B14) 15:39	
22	08:32 16:24	07:28 17:32	06:16 18:32	07:55 (B14) 08:10 (B14)	05:54 20:37	04:50 21:37	04:58 22:10	05:57 21:46	06:59 20:40	08:01 19:18	08:31 (B14) 15:56	08:51 (B14) 15:40	
23	08:30 16:26	07:26 17:34	06:13 18:34	07:53 (B14) 08:11 (B14)	05:52 20:39	04:48 21:38	04:59 22:10	05:59 21:45	07:01 20:37	08:03 19:15	08:29 (B14) 15:55	08:52 (B14) 15:40	
24	08:29 16:28	07:23 17:37	06:10 18:36	07:50 (B14) 08:11 (B14)	05:49 20:41	04:47 21:40	04:59 22:10	06:01 21:43	07:03 20:35	08:05 19:12	08:53 (B14) 15:53	08:50 (B14) 15:41	
25	08:27 16:30	07:21 17:39	06:08 18:39	07:48 (B14) 08:12 (B14)	05:47 20:43	04:45 21:42	04:57 22:10	06:03 21:41	07:05 20:32	08:07 19:10	08:54 (B14) 15:52	08:51 (B14) 15:41	
26	08:26 16:32	07:18 17:41	06:05 18:41	07:47 (B14) 08:12 (B14)	05:45 20:45	04:44 21:43	04:57 22:10	06:05 21:39	07:07 20:30	08:09 19:07	08:55 (B14) 15:51	08:52 (B14) 15:42	
27	08:24 16:34	07:16 17:43	06:02 18:43	07:46 (B14) 08:12 (B14)	05:42 20:47	04:42 21:45	04:57 22:10	06:07 21:38	07:09 20:27	08:11 19:04	08:56 (B14) 15:50	08:53 (B14) 15:43	
28	08:22 16:37	07:13 17:45	06:00 18:45	07:47 (B14) 08:12 (B14)	05:40 20:49	04:41 21:47	04:58 22:10	06:09 21:36	07:11 20:24	08:13 19:02	08:57 (B14) 15:48	08:54 (B14) 15:44	
29	08:20 16:39		06:57 19:47		05:37 20:51	04:40 21:48	04:59 22:10	06:11 21:34	07:13 20:22	08:15 18:59	08:58 (B14) 15:47	08:55 (B14) 15:45	
30	08:19 16:41		06:54 19:49		05:35 20:53	04:38 21:50	04:59 22:09	06:13 21:32	07:15 20:19	08:17 18:56	08:59 (B14) 15:46	08:56 (B14) 15:46	
31	08:17 16:43		06:52 19:51		05:32 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 16:38		09:00 (B14) 15:47	08:57 (B14) 15:47	
Potential sun hours	235	266	366		426	508	529	529	469	385	324	247	216
Total, worst case													
Sun reduction		173			128						303		
Oper. time red.		0.20			0.41						0.26		
Wind dir. red.		0.98			0.98						0.98		
Total reduction		0.63			0.63						0.63		
Total, real		0.12			0.25						0.16		
		21			32						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)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:56	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:36 15:40
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11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:47	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
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24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:54	08:50 15:41
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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 05:23/4.0.531

SHADOW - Calendar

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

Sunshine probability S (Average daily sunshine hours) []

Assumptions for shadow calculations

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	08:06 (B1) 08:13 (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		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	16:36 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	07:21 18:48	16:31 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	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	16:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56		06:38 20:01	05:23 21:04	04:32 21:58	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	16:29 15:41
6	08:49 15:55	08:05 16:56	06:58 17:58		06:35 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	16:27 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	16:25 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	16:23 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	16:21 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07		06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	16:19 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	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	16:17 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	16:16 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13		06:17 20:18	05:06 21:20	04:43 22:06	05:39 21:59	06:41 21:02	07:42 18:22	08:38 (B1) 16:11	16:15 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15		06:14 20:20	05:04 21:22	04:45 22:07	05:41 21:58	06:43 20:59	07:44 19:39	08:35 (B1) 16:09	16:13 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17		06:12 20:22	05:02 21:24	04:46 22:07	05:43 21:57	06:45 20:57	07:46 18:17	08:34 (B1) 16:07	16:11 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20		06:09 20:24	05:01 21:26	04:48 22:08	05:45 21:55	06:47 20:54	07:48 19:34	08:33 (B1) 16:06	16:10 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22		06:07 20:26	05:00 21:27	04:49 22:09	05:47 21:54	06:49 20:52	07:50 19:31	08:32 (B1) 16:04	16:07 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24		06:04 20:28	05:00 21:29	04:51 22:09	05:49 21:53	06:51 20:50	07:52 19:29	08:31 (B1) 16:02	16:05 15:38
19	08:36 16:18	07:36 17:25	06:24 18:26		06:02 20:30	05:00 21:31	04:52 22:09	05:51 21:51	06:53 20:47	07:55 19:26	08:31 (B1) 16:01	16:01 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28		05:59 20:33	04:53 21:33	04:54 22:10	05:53 21:50	06:55 20:45	07:57 19:23	08:31 (B1) 15:59	16:03 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30		05:57 20:35	04:52 21:35	04:56 22:10	05:55 21:48	06:57 20:42	07:59 19:20	08:30 (B1) 15:58	16:05 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32		05:54 20:37	04:50 21:37	04:57 22:10	05:57 21:46	06:59 20:40	08:01 19:18	08:31 (B1) 15:56	16:07 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34		05:52 20:39	04:48 21:38	04:59 22:10	05:59 21:45	07:01 20:37	08:03 19:15	08:34 (B1) 15:55	16:09 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	04:47 21:40	04:58 22:11	05:01 21:43	07:03 20:35	08:05 19:12	08:36 (B1) 15:53	16:11 15:40
25	08:27 16:30	07:21 17:39	06:07 18:38		05:47 20:43	04:45 21:42	04:59 22:11	05:03 21:41	07:05 20:32	07:07 19:10	07:38 (B1) 15:52	16:13 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		05:44 20:45	04:44 21:43	04:59 22:10	05:04 21:39	07:07 20:30	07:10 19:07	07:41 (B1) 15:51	16:15 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43		05:42 20:47	04:42 21:45	04:57 22:10	05:06 21:38	07:09 20:27	07:12 19:04	07:43 (B1) 15:49	16:17 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45		05:39 20:49	04:41 21:47	04:58 22:10	05:08 21:36	07:09 20:24	07:11 19:02	07:45 (B1) 15:48	16:19 15:44
29	08:20 16:39		06:57 19:47		05:37 20:51	04:39 21:48	05:10 22:10	06:11 21:34	07:13 20:22	07:16 18:59		16:21 15:44
30	08:19 16:41		06:54 19:49		05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	07:15 20:19	07:18 18:56		16:23 15:45
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		16:25 15:47
Potential sun hours	235	266	366		426	508	529	529	469	385	324	247
Total, worst case		233	7							244		216
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.98	0.98							0.98		
Wind dir. red.		0.62	0.62							0.62		
Total reduction		0.12	0.25							0.16		
Total, real		29	2							39		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	06:49	07:14 (B17)	05:32
	15:48	16:45	17:47	19:53	17	20:55
2	08:51	08:13	08:43 (B1)	06:46	07:11 (B17)	05:30
	15:49	16:47	3 08:46 (B1)	19:55	19	20:58
3	08:50	08:11	08:41 (B1)	06:43	07:10 (B17)	05:28
	15:50	16:50	8 08:49 (B1)	19:57	19	21:00
4	08:50	08:09	08:39 (B1)	06:41	07:11 (B17)	05:26
	15:52	16:52	11 08:50 (B1)	19:59	18	21:02
5	08:49	08:07	08:37 (B1)	06:38	07:11 (B17)	05:23
	15:53	16:54	15 08:52 (B1)	20:01	17	21:04
6	08:49	08:05	08:34 (B1)	06:35	07:12 (B17)	05:21
	15:55	16:56	18 08:52 (B1)	20:03	15	21:06
7	08:48	08:03	08:32 (B1)	06:33	07:13 (B17)	05:19
	15:56	16:59	21 08:53 (B1)	20:05	12	21:08
8	08:48	08:01	08:31 (B1)	06:30	07:14 (B17)	05:17
	15:58	17:01	23 08:54 (B1)	20:08	8	21:10
9	08:47	07:58	08:30 (B1)	06:27		05:15
	15:59	17:03	23 08:53 (B1)	20:10		21:12
10	08:46	07:56	08:31 (B1)	06:25		05:12
	16:01	17:05	23 08:54 (B1)	20:12		21:14
11	08:45	07:54	08:31 (B1)	06:22		05:10
	16:03	17:08	23 08:54 (B1)	20:14		21:16
12	08:44	07:52	08:31 (B1)	06:20		05:08
	16:04	17:10	23 08:54 (B1)	20:16		21:18
13	08:43	07:50	08:32 (B1)	06:17		05:06
	16:06	17:12	22 08:54 (B1)	20:18		21:20
14	08:42	07:47	08:32 (B1)	06:14		05:04
	16:08	17:14	20 08:52 (B1)	20:20		21:22
15	08:41	07:45	08:33 (B1)	06:12		05:02
	16:10	17:17	19 08:52 (B1)	20:22		21:24
16	08:40	07:43	08:34 (B1)	06:09		05:00
	16:12	17:19	16 08:50 (B1)	20:24		21:26
17	08:39	07:40	08:36 (B1)	06:07		04:59
	16:14	17:21	13 08:49 (B1)	20:26		21:27
18	08:38	07:38	08:38 (B1)	06:04		04:57
	16:16	17:23	8 08:46 (B1)	20:28		21:29
19	08:36	07:36		06:02		04:55
	16:18	17:25		20:30		21:31
20	08:35	07:33		05:59		04:53
	16:20	17:28		20:33		21:33
21	08:33	07:31		05:57		04:51
	16:22	17:30		20:35		21:35
22	08:32	07:28		05:54		04:50
	16:24	17:32		20:37		21:37
23	08:30	07:26		05:52		04:48
	16:26	17:34		20:39		21:38
24	08:29	07:23		05:49		04:47
	16:28	17:37		20:41		21:40
25	08:27	07:21		05:47		04:45
	16:30	17:39		20:43		21:42
26	08:26	07:18		05:44		04:44
	16:32	17:41		20:45		21:43
27	08:24	07:16		05:42		04:42
	16:34	17:43		20:47		21:45
28	08:22	07:13		05:39		04:41
	16:36	17:45		20:49		21:47
29	08:20			05:37		04:39
	16:39			20:51		21:48
30	08:19			05:35		04:38
	16:41			20:53		21:50
31	08:17			05:37		04:37
	16:43			21:51		21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		289	35	125		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.61	0.66	0.66		
Total reduction		0.12	0.26	0.32		
Total, real		34	9	40		

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:00 (B1) 15:45
2	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:00 (B1) 15:44
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:01 (B1) 15:43
4	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:02 (B1) 15:42
5	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:05 (B1) 15:41
6	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:07 (B1) 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:09 (B1) 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:12 (B1) 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:14 (B1) 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:17 (B1) 15:39
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:19 (B1) 15:38
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:20 (B1) 15:38
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:22 (B1) 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:24 (B1) 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:07	08:26 (B1) 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:28 (B1) 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:30 (B1) 15:38
18	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:32 (B1) 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:34 (B1) 15:38
20	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:36 (B1) 15:38
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:38 (B1) 15:39
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:40 (B1) 15:39
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:42 (B1) 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	09:07 (B1) 15:53	08:11 15:40
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	09:17 (B1) 15:52	08:13 15:41
26	05:04 21:39	06:05 20:30	07:07 19:07	08:09 17:50	09:27 (B1) 15:51	08:15 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:47	09:37 (B1) 15:49	08:17 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:45	09:47 (B1) 15:48	08:19 15:43
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	09:57 (B1) 15:47	08:21 15:44
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:40	10:07 (B1) 15:46	08:23 15:45
31	05:14 21:30	06:15 20:17		08:19 17:38	10:17 (B1) 15:45	08:25 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			163	151	141	
Sun reduction			0.43	0.26	0.08	
Oper. time red.			0.98	0.98	0.98	
Wind dir. red.			0.66	0.61	0.61	
Total reduction			0.27	0.15	0.05	
Total, real			44	23	7	

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	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	08:02 (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
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 19:47	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	07:47 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	04:25 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 16:04	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 16:04	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	08:08 16:04	08:50 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:10 16:04	08:51 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:12 16:04	08:52 (B22) 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 16:04	08:53 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:09 16:50	08:15 16:04	08:54 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 16:04	08:55 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 16:04	08:56 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	08:16 16:43	08:21 16:04	08:57 15:45
30	08:19 16:41	07:09 17:49	06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:17 16:41	08:22 16:04	08:58 15:46
31	08:17 16:43	07:07 17:49	06:51 19:51	05:31 20:53	04:37 21:51	05:14 21:30	06:15 20:17	07:16 20:17	08:18 16:38	08:23 16:04	08:28 16:04	08:59 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		229								213	14	
Sun reduction		0.20								0.26	0.08	
Oper. time red.		0.98								0.98	0.98	
Wind dir. red.		0.62								0.62	0.62	
Total reduction		0.12								0.16	0.05	
Total, real		28								33	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:20 20:12	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:22 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:24 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:26 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:28 20:01	07:28 18:41	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 20:04	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 20:06	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 20:06	07:34 18:33	07:40 16:19	08:37 15:40
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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 20:06	08:03 18:00	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 20:06	08:05 18:00	08:11 15:54	08:50 15:41
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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 20:06	08:12 18:00	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:10 20:25	07:11 20:06	08:14 18:00	08:19 15:49	08:51 15:44
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30	08:19 16:41	07:11 17:49	05:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 20:06	08:18 18:00	08:23 15:46	08:51 15:46
31	08:17 16:43	07:11 17:51	05:52 19:51	05:37 20:51	04:37 21:51	04:30 22:09	05:14 21:30	06:16 20:17	07:21 20:06	08:24 18:00	08:29 15:47	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January		February		March		April		May		June	
1	08:51		08:15	08:48 (B24)	07:11	06:49			05:33	04:36		
	15:48		16:45	62 10:11 (B14)	17:48	19:53			20:55	21:53		
2	08:50		08:13	08:48 (B24)	07:08	06:46			05:30	04:35		
	15:49		16:48	61 10:11 (B14)	17:50	19:55			20:57	21:54		
3	08:50		08:11	08:49 (B24)	07:06	06:43		07:11 (B22)	05:28	04:34		
	15:51		16:50	61 10:11 (B14)	17:52	19:57	11	07:22 (B22)	21:00	21:55		
4	08:50		08:09	08:49 (B24)	07:03	06:41		07:07 (B22)	05:26	04:33		
	15:52	6	09:46 (B14)	16:52	60 10:11 (B14)	17:54	19:59	17	07:24 (B22)	21:02	21:57	
5	08:49		09:39 (B14)	08:07	08:50 (B24)	07:01	06:38		07:04 (B22)	05:23	04:32	
	15:53	11	09:50 (B14)	16:54	58 10:11 (B14)	17:56	20:01	22	07:26 (B22)	21:04	21:58	
6	08:49		09:37 (B14)	08:05	08:50 (B24)	06:58	06:35		07:03 (B22)	05:21	04:31	
	15:55	14	09:51 (B14)	16:56	56 10:10 (B14)	17:58	20:03	24	07:27 (B22)	21:06	21:59	
7	08:48		09:36 (B14)	08:03	08:51 (B24)	06:55	06:33		07:01 (B22)	05:19	04:30	
	15:56	17	09:53 (B14)	16:59	53 10:09 (B14)	18:01	20:06	27	07:28 (B22)	21:08	22:00	
8	08:48		09:36 (B14)	08:01	08:52 (B24)	06:53	06:30		07:01 (B22)	05:17	04:29	
	15:58	18	09:54 (B14)	17:01	48 10:08 (B14)	18:03	20:08	28	07:29 (B22)	21:10	22:01	
9	08:47		09:35 (B14)	07:58	08:52 (B24)	06:50	06:28		06:59 (B22)	05:15	04:29	
	16:00	21	09:56 (B14)	17:03	44 10:06 (B14)	18:05	20:10	30	07:29 (B22)	21:12	22:02	
10	08:46		09:34 (B14)	07:56	08:54 (B24)	06:47	06:25		06:58 (B22)	05:13	04:28	
	16:01	23	09:57 (B14)	17:05	38 10:05 (B14)	18:07	20:12	31	07:29 (B22)	21:14	22:03	
11	08:45		09:34 (B14)	07:54	08:58 (B24)	06:45	06:22		06:58 (B22)	05:11	04:27	
	16:03	25	09:59 (B14)	17:08	28 10:04 (B14)	18:09	20:14	31	07:29 (B22)	21:16	22:04	
12	08:44		09:34 (B14)	07:52	09:45 (B14)	06:42	06:20		06:57 (B22)	05:09	04:27	
	16:05	26	10:00 (B14)	17:10	15 10:00 (B14)	18:11	20:16	32	07:29 (B22)	21:18	22:05	
13	08:43		09:33 (B14)	07:50	09:51 (B14)	06:40	06:17		06:57 (B22)	05:07	04:26	
	16:06	28	10:01 (B14)	17:12	4 09:55 (B14)	18:13	20:18	32	07:29 (B22)	21:20	22:06	
14	08:42		09:33 (B14)	07:47		06:37	06:15		06:56 (B22)	05:05	04:26	
	16:08	29	10:02 (B14)	17:14		18:15	20:20	32	07:28 (B22)	21:22	22:07	
15	08:41		09:32 (B14)	07:45		06:34	06:12		06:57 (B22)	05:03	04:26	
	16:10	31	10:03 (B14)	17:17		18:18	20:22	31	07:28 (B22)	21:24	22:07	
16	08:40		09:32 (B14)	07:43		06:32	06:09		06:56 (B22)	05:01	04:26	
	16:12	32	10:04 (B14)	17:19		18:20	20:24	31	07:27 (B22)	21:25	22:08	
17	08:39		09:32 (B14)	07:40		06:29	06:07		06:57 (B22)	04:59	04:25	
	16:14	33	10:05 (B14)	17:21		18:22	20:26	30	07:27 (B22)	21:27	22:08	
18	08:37		09:32 (B14)	07:38		06:26	06:04		06:57 (B22)	04:57	04:25	
	16:16	34	10:06 (B14)	17:23		18:24	20:28	28	07:25 (B22)	21:29	22:09	
19	08:36		09:31 (B14)	07:36		06:24	06:02		06:58 (B22)	04:55	04:25	
	16:18	35	10:06 (B14)	17:26		18:26	20:30	26	07:24 (B22)	21:31	22:09	
20	08:35		09:31 (B14)	07:33		06:21	05:59		06:59 (B22)	04:53	04:25	
	16:20	37	10:08 (B14)	17:28		18:28	20:33	25	07:24 (B22)	21:33	22:10	
21	08:33		09:31 (B14)	07:31		06:18	05:57		07:00 (B22)	04:52	04:25	
	16:22	37	10:08 (B14)	17:30		18:30	20:35	21	07:21 (B22)	21:35	22:10	
22	08:32		09:31 (B14)	07:28		06:16	05:54		07:02 (B22)	04:50	04:26	
	16:24	38	10:09 (B14)	17:32		18:32	20:37	18	07:20 (B22)	21:37	22:10	
23	08:30		09:31 (B14)	07:26		06:13	05:52		07:03 (B22)	04:48	04:26	
	16:26	38	10:09 (B14)	17:34		18:34	20:39	14	07:17 (B22)	21:38	22:10	
24	08:29		09:02 (B24)	07:23		06:10	05:49		07:08 (B22)	04:47	04:26	
	16:28	40	10:10 (B14)	17:37		18:36	20:41	4	07:12 (B22)	21:40	22:10	
25	08:27		09:00 (B24)	07:21		06:08	05:47			04:45	04:26	
	16:30	45	10:11 (B14)	17:39		18:38	20:43			21:42	22:10	
26	08:26		08:58 (B24)	07:18		06:05	05:44			04:44	04:27	
	16:32	49	10:11 (B14)	17:41		18:41	20:45			21:43	22:10	
27	08:24		08:56 (B24)	07:16		06:02	05:42			04:42	04:27	
	16:34	52	10:11 (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	10:12 (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	10:12 (B14)			19:47	20:51			21:48	22:10	
30	08:18		08:50 (B24)			06:54	05:35			04:38	04:29	
	16:41	61	10:12 (B14)			19:49	20:53			21:50	22:09	
31	08:17		08:49 (B24)			06:51				04:37		
	16:43	61	10:12 (B14)			19:51				21:51		
Potential sun hours	235		266		366	426			508	529		
Total, worst case	954		588			545						
Sun reduction	0.13		0.20			0.50						
Oper. time red.	0.98		0.98			0.98						
Wind dir. red.	0.60		0.60			0.66						
Total reduction	0.08		0.12			0.31						
Total, real	73		68			171						

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July		August		September		October		November		December	
1	04:30	05:16			06:17	06:57 (B22)	07:17		07:23	08:24 (B24)	08:24	09:16 (B14)
	22:09	21:28			20:14	31 07:28 (B22)	18:54		16:36	38 09:35 (B14)	15:45	25 09:41 (B14)
2	04:31	05:18			06:19	06:57 (B22)	07:19		07:25	08:22 (B24)	08:26	09:17 (B14)
	22:09	21:26			20:11	31 07:28 (B22)	18:51		16:34	44 09:36 (B14)	15:44	24 09:41 (B14)
3	04:32	05:20			06:21	06:57 (B22)	07:21		07:27	08:21 (B24)	08:28	09:18 (B14)
	22:08	21:24			20:09	30 07:27 (B22)	18:48		16:32	50 09:38 (B14)	15:43	21 09:39 (B14)
4	04:33	05:21			06:23	06:58 (B22)	07:23		07:29	08:20 (B24)	08:29	09:20 (B14)
	22:07	21:22			20:06	28 07:26 (B22)	18:46		16:29	54 09:39 (B14)	15:42	19 09:39 (B14)
5	04:34	05:23			06:25	06:58 (B22)	07:25		07:31	08:19 (B24)	08:31	09:21 (B14)
	22:07	21:20			20:03	27 07:25 (B22)	18:43		16:27	56 09:39 (B14)	15:42	17 09:38 (B14)
6	04:35	05:25			06:27	06:59 (B22)	07:27		07:33	08:20 (B24)	08:32	09:23 (B14)
	22:06	21:17			20:01	24 07:23 (B22)	18:40		16:25	58 09:41 (B14)	15:41	15 09:38 (B14)
7	04:36	05:27			06:29	06:59 (B22)	07:30		07:36	08:19 (B24)	08:34	09:25 (B14)
	22:05	21:15			19:58	22 07:21 (B22)	18:38		16:23	60 09:41 (B14)	15:40	11 09:36 (B14)
8	04:37	05:29			06:31	07:01 (B22)	07:32		07:38	08:20 (B24)	08:35	09:27 (B14)
	22:04	21:13			19:55	18 07:19 (B22)	18:35		16:21	61 09:42 (B14)	15:40	8 09:35 (B14)
9	04:38	05:31			06:33	07:04 (B22)	07:34		07:40	08:19 (B24)	08:37	
	22:03	21:11			19:53	11 07:15 (B22)	18:32		16:19	62 09:42 (B14)	15:39	
10	04:39	05:33			06:35		07:36		07:42	08:20 (B24)	08:38	
	22:02	21:08			19:50		18:30		16:17	62 09:43 (B14)	15:39	
11	04:41	05:35			06:37		07:38		07:44	08:20 (B24)	08:39	
	22:01	21:06			19:47		18:27		16:15	62 09:43 (B14)	15:39	
12	04:42	05:37			06:39		07:40		07:46	08:21 (B24)	08:40	
	22:00	21:04			19:45		18:25		16:13	61 09:43 (B14)	15:38	
13	04:43	05:39			06:41		07:42		07:49	08:24 (B24)	08:42	
	21:59	21:02			19:42		18:22		16:11	58 09:44 (B14)	15:38	
14	04:45	05:41			06:43		07:44		07:51	08:26 (B24)	08:43	
	21:58	20:59			19:39		18:20		16:09	56 09:44 (B14)	15:38	
15	04:46	05:43			06:45		07:46		07:53	08:28 (B24)	08:44	
	21:57	20:57			19:37		18:17		16:08	52 09:43 (B14)	15:38	
16	04:48	05:45			06:47		07:48		07:55	08:31 (B24)	08:45	
	21:55	20:54			19:34		18:14		16:06	49 09:44 (B14)	15:38	
17	04:49	05:47			06:49		07:50		07:57	08:33 (B24)	08:46	
	21:54	20:52			19:31		18:12		16:04	45 09:44 (B14)	15:38	
18	04:51	05:49			06:51		07:52		07:59	08:36 (B24)	08:46	
	21:52	20:50			19:29		18:09		16:02	40 09:44 (B14)	15:38	
19	04:53	05:51		07:12 (B22)	06:53		07:55		08:01	09:06 (B14)	08:47	
	21:51	20:47	7	07:19 (B22)	19:26		18:07		16:01	38 09:44 (B14)	15:38	
20	04:54	05:53		07:08 (B22)	06:55		07:57		08:03	09:06 (B14)	08:48	
	21:49	20:45	15	07:23 (B22)	19:23		18:04		15:59	38 09:44 (B14)	15:39	
21	04:56	05:55		07:06 (B22)	06:57		07:59		08:05	09:06 (B14)	08:48	
	21:48	20:42	19	07:25 (B22)	19:21		18:02		15:58	37 09:43 (B14)	15:39	
22	04:58	05:57		07:04 (B22)	06:59		08:01		08:07	09:08 (B14)	08:49	
	21:46	20:40	22	07:26 (B22)	19:18		18:00		15:56	36 09:44 (B14)	15:40	
23	04:59	05:59		07:03 (B22)	07:01		08:03		08:09	09:08 (B14)	08:50	
	21:45	20:37	24	07:27 (B22)	19:15		17:57		15:55	35 09:43 (B14)	15:40	
24	05:01	06:01		07:02 (B22)	07:03		08:05		08:11	09:09 (B14)	08:50	
	21:43	20:35	26	07:28 (B22)	19:12		17:55		15:53	34 09:43 (B14)	15:41	
25	05:03	06:03		07:01 (B22)	07:05		07:07		08:13	09:09 (B14)	08:50	
	21:41	20:32	28	07:29 (B22)	19:10		16:52		15:52	34 09:43 (B14)	15:41	
26	05:05	06:05		07:00 (B22)	07:07		07:10		08:15	09:10 (B14)	08:51	
	21:39	20:30	30	07:30 (B22)	19:07		16:50		15:51	32 09:42 (B14)	15:42	
27	05:06	06:07		06:58 (B22)	07:09		07:12		08:17	09:12 (B14)	08:51	
	21:38	20:27	31	07:29 (B22)	19:04		16:48		15:49	31 09:43 (B14)	15:43	
28	05:08	06:09		06:58 (B22)	07:11		07:14		08:19	09:13 (B14)	08:51	
	21:36	20:24	31	07:29 (B22)	19:02		16:45		15:48	29 09:42 (B14)	15:44	
29	05:10	06:11		06:57 (B22)	07:13		07:16		08:21	09:14 (B14)	08:51	
	21:34	20:22	32	07:29 (B22)	18:59		16:43	9 09:27 (B14)	15:47	28 09:42 (B14)	15:45	
30	05:12	06:13		06:57 (B22)	07:15		07:18		08:22	09:15 (B14)	08:51	
	21:32	20:19	32	07:29 (B22)	18:56		16:41	16 09:30 (B14)	15:46	26 09:41 (B14)	15:46	
31	05:14	06:15		06:57 (B22)			07:20		08:26 (B24)		08:51	
	21:30	20:17	32	07:29 (B22)			16:38	31 09:34 (B14)			15:47	
Potential sun hours	529	469			385		324		247		216	
Total, worst case			329		222		56		1366		140	
Sun reduction			0.50		0.43		0.26		0.08		0.07	
Oper. time red.			0.98		0.98		0.98		0.98		0.98	
Wind dir. red.			0.66		0.66		0.60		0.60		0.61	
Total reduction			0.31		0.27		0.15		0.05		0.04	
Total, real			103		59		8		65		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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January		February		March		April		May		June	
1	08:51		08:15	08:45 (B24)	07:11	06:49			05:33	04:36		
	15:48		16:45	59 10:01 (B14)	17:48	19:53			20:55	21:53		
2	08:50		08:13	08:43 (B24)	07:08	06:46			05:30	04:35		
	15:49		16:48	62 10:01 (B14)	17:50	19:55			20:57	21:54		
3	08:50		08:11	08:41 (B24)	07:06	06:43			05:28	04:34		
	15:51		16:50	66 10:02 (B14)	17:52	19:57			21:00	21:55		
4	08:50		08:09	08:41 (B24)	07:03	06:41			05:26	04:33		
	15:52		16:52	65 10:02 (B14)	17:54	19:59			21:02	21:57		
5	08:49		08:07	08:41 (B24)	07:01	06:38			05:23	04:32		
	15:53		16:54	66 10:02 (B14)	17:56	20:01			21:04	21:58		
6	08:49		08:05	08:41 (B24)	06:58	06:35			05:21	04:31		
	15:55		16:56	64 10:01 (B14)	17:58	20:03			21:06	21:59		
7	08:48		08:03	08:41 (B24)	06:55	06:33			05:19	04:30		
	15:56		16:59	64 10:01 (B14)	18:01	20:06			21:08	22:00		
8	08:48		08:01	08:42 (B24)	06:53	06:30		06:57 (B22)	05:17	04:29		
	15:58		17:01	63 10:01 (B14)	18:03	20:08	12	07:09 (B22)	21:10	22:01		
9	08:47		07:58	08:42 (B24)	06:50	06:28		06:53 (B22)	05:15	04:29		
	16:00		17:03	61 10:00 (B14)	18:05	20:10	18	07:11 (B22)	21:12	22:02		
10	08:46		07:56	08:43 (B24)	06:47	06:25		06:51 (B22)	05:13	04:28		
	16:01		17:05	59 10:00 (B14)	18:07	20:12	21	07:12 (B22)	21:14	22:03		
11	08:45		07:54	08:44 (B24)	06:45	06:22		06:50 (B22)	05:11	04:27		
	16:03		17:08	56 10:00 (B14)	18:09	20:14	24	07:14 (B22)	21:16	22:04		
12	08:44		07:52	08:44 (B24)	06:42	06:20		06:48 (B22)	05:09	04:27		
	16:05		17:10	52 09:58 (B14)	18:11	20:16	26	07:14 (B22)	21:18	22:05		
13	08:43		07:50	08:46 (B24)	06:40	06:17		06:47 (B22)	05:07	04:26		
	16:06	5	09:32 (B14)	17:12	46 09:57 (B14)	18:13	20:18	28 07:15 (B22)	21:20	22:06		
14	08:42		07:47	08:48 (B24)	06:37	06:15		06:46 (B22)	05:05	04:26		
	16:08	13	09:42 (B14)	17:14	39 09:56 (B14)	18:15	20:20	29 07:15 (B22)	21:22	22:07		
15	08:41		07:45	09:28 (B14)	06:34	06:12		06:45 (B22)	05:03	04:26		
	16:10	17	09:44 (B14)	17:17	26 09:54 (B14)	18:18	20:22	31 07:16 (B22)	21:24	22:07		
16	08:40		07:43	09:29 (B14)	06:32	06:09		06:44 (B22)	05:01	04:26		
	16:12	20	09:46 (B14)	17:19	23 09:52 (B14)	18:20	20:24	32 07:16 (B22)	21:25	22:08		
17	08:39		07:40	09:32 (B14)	06:29	06:07		06:44 (B22)	04:59	04:25		
	16:14	22	09:47 (B14)	17:21	17 09:49 (B14)	18:22	20:26	32 07:16 (B22)	21:27	22:08		
18	08:37		07:38	09:36 (B14)	06:26	06:04		06:44 (B22)	04:57	04:25		
	16:16	25	09:49 (B14)	17:23	8 09:44 (B14)	18:24	20:28	31 07:15 (B22)	21:29	22:09		
19	08:36		07:36	09:23 (B14)	06:24	06:02		06:44 (B22)	04:55	04:25		
	16:18	27	09:50 (B14)	17:26		18:26	20:30	31 07:15 (B22)	21:31	22:09		
20	08:35		07:33	09:23 (B14)	06:21	05:59		06:44 (B22)	04:53	04:25		
	16:20	29	09:52 (B14)	17:28		18:28	20:33	31 07:15 (B22)	21:33	22:10		
21	08:33		07:31	09:22 (B14)	06:18	05:57		06:44 (B22)	04:52	04:25		
	16:22	31	09:53 (B14)	17:30		18:30	20:35	30 07:14 (B22)	21:35	22:10		
22	08:32		07:28	09:21 (B14)	06:16	05:54		06:44 (B22)	04:50	04:26		
	16:24	33	09:54 (B14)	17:32		18:32	20:37	30 07:14 (B22)	21:37	22:10		
23	08:30		07:26	09:21 (B14)	06:13	05:52		06:44 (B22)	04:48	04:26		
	16:26	34	09:55 (B14)	17:34		18:34	20:39	28 07:12 (B22)	21:38	22:10		
24	08:29		07:23	09:21 (B14)	06:10	05:49		06:45 (B22)	04:47	04:26		
	16:28	36	09:57 (B14)	17:37		18:36	20:41	26 07:11 (B22)	21:40	22:10		
25	08:27		07:21	09:21 (B14)	06:08	05:47		06:46 (B22)	04:45	04:26		
	16:30	37	09:58 (B14)	17:39		18:38	20:43	24 07:10 (B22)	21:42	22:10		
26	08:26		07:18	09:20 (B14)	06:05	05:44		06:46 (B22)	04:44	04:27		
	16:32	38	09:58 (B14)	17:41		18:41	20:45	22 07:08 (B22)	21:43	22:10		
27	08:24		07:16	09:20 (B14)	06:02	05:42		06:48 (B22)	04:42	04:27		
	16:34	39	09:59 (B14)	17:43		18:43	20:47	19 07:07 (B22)	21:45	22:10		
28	08:22		07:13	08:54 (B24)	05:59	05:40		06:50 (B22)	04:41	04:28		
	16:37	42	10:00 (B14)	17:45		18:45	20:49	15 07:05 (B22)	21:47	22:10		
29	08:20			08:52 (B24)	06:57	05:37		06:54 (B22)	04:40	04:29		
	16:39	47	10:00 (B14)			19:47	20:51	7 07:01 (B22)	21:48	22:10		
30	08:18			08:50 (B24)	06:54	05:35			04:38	04:29		
	16:41	51	10:01 (B14)			19:49	20:53		21:50	22:09		
31	08:17			08:48 (B24)	06:51				04:37			
	16:43	55	10:01 (B14)			19:51			21:51			
Potential sun hours	235		266		366	426		508		529		
Total, worst case	601		896				547					
Sun reduction	0.13		0.20				0.50					
Oper. time red.	0.98		0.98				0.98					
Wind dir. red.	0.60		0.60				0.66					
Total reduction	0.08		0.11				0.31					
Total, real	46		103				171					

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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:49 (B22)	07:17	07:23
	22:09	21:28	20:14	24 07:13 (B22)	18:54	16:36
2	04:31	05:18	06:19	06:50 (B22)	07:19	59 09:30 (B14)
	22:08	21:26	20:11	21 07:11 (B22)	18:51	07:25
3	04:32	05:20	06:21	06:51 (B22)	07:21	61 09:30 (B14)
	22:08	21:24	20:09	18 07:09 (B22)	18:48	07:27
4	04:33	05:22	06:23	06:54 (B22)	07:23	63 09:31 (B14)
	22:07	21:22	20:06	12 07:06 (B22)	18:46	07:29
5	04:34	05:23	06:25	07:25	18:43	64 09:31 (B14)
	22:07	21:20	20:03	18:43	16:27	07:31
6	04:35	05:25	06:27	07:27	18:38	65 09:31 (B14)
	22:06	21:17	20:01	18:40	16:27	07:33
7	04:36	05:27	06:29	07:30	18:35	66 09:32 (B14)
	22:05	21:15	19:58	18:38	16:23	07:36
8	04:37	05:29	06:31	07:32	18:32	65 09:32 (B14)
	22:04	21:13	19:55	18:35	16:21	07:38
9	04:38	05:31	06:33	07:34	18:21	64 09:32 (B14)
	22:03	21:11	19:53	18:32	16:15	07:40
10	04:39	05:33	06:35	07:36	18:19	61 09:32 (B14)
	22:02	21:08	19:50	18:30	16:19	07:42
11	04:41	05:35	06:37	07:38	18:16	61 09:32 (B14)
	22:01	21:06	19:47	18:27	16:17	07:44
12	04:42	05:37	06:39	07:40	18:11	54 09:32 (B14)
	22:00	21:04	19:45	18:25	16:13	07:46
13	04:43	05:39	06:41	07:42	18:08	51 09:32 (B14)
	21:59	21:02	19:42	18:22	16:11	07:49
14	04:45	05:41	07:00 (B22)	06:43	18:04	46 09:32 (B14)
	21:58	20:59	10 07:10 (B22)	19:39	18:20	16:11
15	04:46	05:43	06:57 (B22)	06:45	18:09	41 09:31 (B14)
	21:57	20:57	16 07:13 (B22)	19:37	18:20	16:09
16	04:48	05:45	06:55 (B22)	06:47	18:07	39 09:31 (B14)
	21:55	20:54	20 07:15 (B22)	19:34	18:04	16:08
17	04:49	05:47	06:54 (B22)	06:49	18:03	38 09:31 (B14)
	21:54	20:52	22 07:16 (B22)	19:31	18:02	16:06
18	04:51	05:49	06:52 (B22)	06:51	18:01	37 09:31 (B14)
	21:52	20:50	24 07:16 (B22)	19:29	18:00	16:04
19	04:53	05:51	06:51 (B22)	06:53	17:59	36 09:31 (B14)
	21:51	20:47	26 07:17 (B22)	19:26	17:58	16:02
20	04:54	05:53	06:50 (B22)	06:55	17:57	36 09:31 (B14)
	21:49	20:45	28 07:18 (B22)	19:23	17:56	16:01
21	04:56	05:55	06:49 (B22)	06:57	17:55	34 09:30 (B14)
	21:48	20:42	29 07:18 (B22)	19:21	17:54	16:00
22	04:58	05:57	06:48 (B22)	06:59	17:53	33 09:29 (B14)
	21:46	20:40	31 07:19 (B22)	19:18	17:52	15:59
23	04:59	05:59	06:48 (B22)	07:01	17:51	33 09:29 (B14)
	21:45	20:37	31 07:19 (B22)	19:15	17:50	15:58
24	05:01	06:01	06:48 (B22)	07:03	17:49	31 09:28 (B14)
	21:43	20:35	31 07:19 (B22)	19:12	17:48	15:57
25	05:03	06:03	06:47 (B22)	07:05	17:47	31 09:28 (B14)
	21:41	20:32	32 07:19 (B22)	19:10	17:46	15:56
26	05:05	06:05	06:47 (B22)	07:07	17:45	29 09:28 (B14)
	21:39	20:30	32 07:19 (B22)	19:07	17:44	15:55
27	05:06	06:07	06:46 (B22)	07:09	17:43	29 09:28 (B14)
	21:38	20:27	31 07:17 (B22)	19:04	17:42	15:54
28	05:08	06:09	06:46 (B22)	07:11	17:41	27 09:24 (B14)
	21:36	20:24	31 07:17 (B22)	19:02	17:40	15:49
29	05:10	06:11	06:47 (B22)	07:13	17:39	41 09:25 (B14)
	21:34	20:22	29 07:16 (B22)	18:59	17:38	15:48
30	05:12	06:13	06:47 (B22)	07:15	17:37	48 09:27 (B14)
	21:32	20:19	28 07:15 (B22)	18:56	17:36	6 09:19 (B14)
31	05:14	06:15	06:48 (B22)		17:35	13 09:22 (B14)
	21:30	20:17	26 07:14 (B22)		17:34	13 09:22 (B14)
Potential sun hours	529	469	385	324	247	216
Total, worst case		477	75	277	1227	
Sun reduction		0.50	0.43	0.26	0.08	
Oper. time red.		0.98	0.98	0.98	0.98	
Wind dir. red.		0.66	0.66	0.60	0.60	
Total reduction		0.31	0.27	0.15	0.05	
Total, real		149	20	41	58	

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
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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
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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	06:50 (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	06:51 (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	06:53 (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	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	06:55 (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	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	06:57 (B14) 18:40	07:28 16:25	07:33 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	06:58 (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	05:17 21:10	04:29 22:01	04:37 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	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:01 (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	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	07:42 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	07:44 15:39
12	08:44 16:03	07:52 17:08	06:42 18:09	06:20 20:14	05:09 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:48	07:40 18:27	07:46 16:15	07:46 15:39
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	07:49 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	07:51 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	07:53 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	07:55 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	07:57 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	07:59 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:01 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:03 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:05 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:07 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	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	05:07 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	07:11 17:47	06:57 18:41	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	07:09 17:49	06:54 18:39	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	07:07 17:51	06:52 18:39	05:34 20:54	04:37 21:51	04:28 22:10	05:14 21:30	06:15 20:17	07:16 19:03	08:19 17:20	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case				270				152	119			
Sun reduction				0.50				0.50	0.43			
Oper. time red.				0.98				0.98	0.98			
Wind dir. red.				0.66				0.66	0.66			
Total reduction				0.32				0.32	0.28			
Total, real				87				49	33			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January				February				March				April				May				June			
1	08:51		09:56 (B14)	08:15	07:11				06:49		07:57 (B22)	05:33	04:36											
	15:48	33	10:29 (B14)	16:45	17:48				19:53	15	08:12 (B22)	20:55	21:53											
2	08:50		09:57 (B14)	08:13	07:08				06:46		08:00 (B22)	05:30	04:35											
	15:49	33	10:30 (B14)	16:48	17:50				19:55	7	08:07 (B22)	20:58	21:54											
3	08:50		09:57 (B14)	08:11	07:06				06:43			05:28	04:34											
	15:51	33	10:30 (B14)	16:50	17:52				19:57			21:00	21:55											
4	08:50		09:57 (B14)	08:09	07:03				06:41			05:26	04:33											
	15:52	33	10:30 (B14)	16:52	17:54				19:59			21:02	21:57											
5	08:49		09:58 (B14)	08:07	07:01				06:38			05:23	04:32											
	15:53	33	10:31 (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	32	10:31 (B14)	16:56	17:58				20:03			21:06	21:59											
7	08:48		09:59 (B14)	08:03	06:55				06:33			05:19	04:30											
	15:56	33	10:32 (B14)	16:59	18:01				20:06			21:08	22:00											
8	08:48		09:59 (B14)	08:01	06:53				06:30			05:17	04:29											
	15:58	33	10:32 (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	32	10:32 (B14)	17:03	18:05				20:10			21:12	22:02											
10	08:46		09:23 (B24)	07:56	06:47				06:25			05:13	04:28											
	16:01	34	10:33 (B14)	17:05	18:07				20:12			21:14	22:03											
11	08:45		09:22 (B24)	07:54	06:45				06:22			05:11	04:27											
	16:03	35	10:33 (B14)	17:08	18:09				20:14			21:16	22:04											
12	08:44		09:21 (B24)	07:52	06:42				06:20			05:09	04:27											
	16:05	39	10:34 (B14)	17:10	18:11				20:16			21:18	22:05											
13	08:43		09:19 (B24)	07:50	06:40				06:17			05:07	04:26											
	16:06	40	10:33 (B14)	17:12	18:13				20:18			21:20	22:06											
14	08:42		09:18 (B24)	07:47	06:37		07:05 (B22)	06:15			05:05	04:26												
	16:08	42	10:34 (B14)	17:14	18:15	9	07:14 (B22)	20:20			21:22	22:07												
15	08:41		09:16 (B24)	07:45	06:34		07:02 (B22)	06:12			05:03	04:26												
	16:10	45	10:34 (B14)	17:17	18:18	16	07:18 (B22)	20:22			21:24	22:07												
16	08:40		09:15 (B24)	07:43	06:32		06:59 (B22)	06:09			05:01	04:26												
	16:12	46	10:34 (B14)	17:19	18:20	21	07:20 (B22)	20:24			21:25	22:08												
17	08:39		09:14 (B24)	07:40	06:29		06:57 (B22)	06:07			04:59	04:25												
	16:14	48	10:35 (B14)	17:21	18:22	24	07:21 (B22)	20:26			21:27	22:08												
18	08:38		09:12 (B24)	07:38	06:26		06:55 (B22)	06:04			04:57	04:25												
	16:16	48	10:34 (B14)	17:23	18:24	26	07:21 (B22)	20:28			21:29	22:09												
19	08:36		09:11 (B24)	07:36	06:24		06:55 (B22)	06:02			04:55	04:25												
	16:18	49	10:34 (B14)	17:26	18:26	28	07:23 (B22)	20:30			21:31	22:09												
20	08:35		09:12 (B24)	07:33	06:21		06:54 (B22)	05:59			04:53	04:25												
	16:20	49	10:34 (B14)	17:28	18:28	29	07:23 (B22)	20:33			21:33	22:10												
21	08:33		09:12 (B24)	07:31	06:18		06:52 (B22)	05:57			04:52	04:25												
	16:22	47	10:33 (B14)	17:30	18:30	31	07:23 (B22)	20:35			21:35	22:10												
22	08:32		09:12 (B24)	07:28	06:16		06:53 (B22)	05:54			04:50	04:26												
	16:24	46	10:33 (B14)	17:32	18:32	30	07:23 (B22)	20:37			21:37	22:10												
23	08:30		09:12 (B24)	07:26	06:13		06:52 (B22)	05:52			04:48	04:26												
	16:26	44	10:32 (B14)	17:34	18:34	31	07:23 (B22)	20:39			21:38	22:10												
24	08:29		09:13 (B24)	07:23	06:10		06:51 (B22)	05:49			04:47	04:26												
	16:28	42	10:32 (B14)	17:37	18:36	31	07:22 (B22)	20:41			21:40	22:10												
25	08:27		09:14 (B24)	07:21	06:08		06:52 (B22)	05:47			04:45	04:26												
	16:30	36	10:30 (B14)	17:39	18:38	30	07:22 (B22)	20:43			21:42	22:10												
26	08:26		09:14 (B24)	07:18	06:05		06:51 (B22)	05:44			04:44	04:27												
	16:32	32	10:28 (B14)	17:41	18:41	30	07:21 (B22)	20:45			21:43	22:10												
27	08:24		09:15 (B24)	07:16	06:02		06:51 (B22)	05:42			04:42	04:27												
	16:34	24	10:25 (B14)	17:43	18:43	29	07:20 (B22)	20:47			21:45	22:10												
28	08:22		09:16 (B24)	07:13	05:59		06:52 (B22)	05:40			04:41	04:28												
	16:37	16	09:32 (B24)	17:45	18:45	28	07:20 (B22)	20:49			21:47	22:10												
29	08:20		09:18 (B24)		06:57		07:53 (B22)	05:37			04:40	04:29												
	16:39	13	09:31 (B24)		19:47	25	08:18 (B22)	20:51			21:48	22:10												
30	08:19		09:20 (B24)		06:54		07:53 (B22)	05:35			04:38	04:29												
	16:41	10	09:30 (B24)		19:49	23	08:16 (B22)	20:53			21:50	22:09												
31	08:17		09:24 (B24)		06:51		07:55 (B22)				04:37													
	16:43	2	09:26 (B24)		19:51	20	08:15 (B22)				21:51													
Potential sun hours	235			266	366			426			508	529												
Total, worst case	1082				461			22																
Sun reduction	0.13				0.41			0.50																
Oper. time red.	0.98				0.98			0.98																
Wind dir. red.	0.61				0.64			0.64																
Total reduction	0.08				0.25			0.31																
Total, real	84				116			7																

Table layout: For each day in

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	07:23	08:24
	22:09	21:28	20:14	18:54	16:36	15:45
2	04:31	05:18	06:19	07:19	07:25	08:26
	22:09	21:26	20:11	18:51	16:34	15:44
3	04:32	05:20	06:21	07:21	07:27	08:28
	22:08	21:24	20:09	18:48	16:32	15:43
4	04:33	05:21	06:23	07:23	07:29	08:29
	22:07	21:22	20:06	18:46	16:29	15:42
5	04:34	05:23	06:25	07:25	07:31	08:31
	22:07	21:20	20:03	18:43	16:27	15:42
6	04:35	05:25	06:27	07:27	07:33	08:32
	22:06	21:17	20:01	18:40	16:25	15:41
7	04:36	05:27	06:29	07:30	07:36	08:34
	22:05	21:15	19:58	18:38	16:23	15:40
8	04:37	05:29	06:31	07:32	07:38	08:35
	22:04	21:13	19:55	18:35	16:21	15:40
9	04:38	05:31	06:33	07:34	07:40	08:37
	22:03	21:11	19:53	18:32	16:19	15:39
10	04:39	05:33	06:35	07:36	07:42	08:38
	22:02	21:08	19:50	18:30	16:17	15:39
11	04:41	05:35	06:37	07:49	07:44	08:54
	22:01	21:06	19:47	18:27	16:15	15:39
12	04:42	05:37	06:39	07:47	07:46	08:50
	22:00	21:04	19:45	18:25	16:13	15:38
13	04:43	05:39	06:41	07:45	07:49	08:50
	21:59	21:02	19:42	18:22	16:11	15:38
14	04:45	05:41	06:43	07:43	07:51	08:48
	21:58	20:59	19:39	18:20	16:09	15:38
15	04:46	05:43	06:45	07:42	07:53	08:47
	21:57	20:57	19:37	18:17	16:08	15:38
16	04:48	05:45	06:47	07:41	07:55	08:47
	21:55	20:54	19:34	18:14	16:06	15:38
17	04:49	05:47	06:49	07:40	07:57	08:47
	21:54	20:52	19:31	18:12	16:04	15:38
18	04:51	05:49	06:51	07:39	07:59	08:47
	21:52	20:50	19:29	18:10	16:02	15:38
19	04:53	05:51	06:53	07:39	07:55	08:47
	21:51	20:47	19:26	18:10	16:01	15:38
20	04:54	05:53	06:55	07:38	07:57	08:47
	21:49	20:45	19:23	18:09	15:59	15:39
21	04:56	05:55	06:57	07:38	07:59	08:47
	21:48	20:42	19:21	18:09	15:58	15:39
22	04:58	05:57	06:59	07:38	08:01	08:48
	21:46	20:40	19:18	18:08	15:56	15:39
23	04:59	05:59	07:01	07:38	08:03	08:48
	21:45	20:37	19:15	18:08	15:55	15:40
24	05:01	06:01	07:03	07:38	08:05	08:49
	21:43	20:35	19:12	18:07	15:53	15:41
25	05:03	06:03	07:05	07:39	08:13	08:51
	21:41	20:32	19:10	18:05	15:52	15:41
26	05:05	06:05	07:07	07:40	08:15	08:53
	21:39	20:30	19:07	18:04	15:51	15:42
27	05:06	06:07	07:09	07:41	08:17	08:56
	21:38	20:27	19:04	18:02	15:49	15:43
28	05:08	06:09	07:11	07:42	08:19	08:58
	21:36	20:24	19:02	18:00	15:48	15:44
29	05:10	06:11	07:13	07:45	08:21	09:00
	21:34	20:22	18:59	18:00	15:47	15:45
30	05:12	06:13	07:15	07:48	08:22	09:02
	21:32	20:19	18:56	18:01	15:46	15:46
31	05:14	06:15		07:50		08:51
	21:30	20:17		16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			486		721	994
Sun reduction			0.43		0.08	0.07
Oper. time red.			0.98		0.98	0.98
Wind dir. red.			0.64		0.60	0.61
Total reduction			0.26		0.05	0.04
Total, real			127		35	41

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48 9	14:07 (B17) 14:16 (B17) 16:45	08:15 07:11 17:47	06:48 19:53 20:55	05:32 20:55 21:53	04:35 21:53 22:09	04:30 22:09 21:28	05:15 21:28 20:14	06:17 20:14 18:53	07:17 18:53 16:36	07:22 16:36 15:45	
2	08:50 15:49 7	14:09 (B17) 16:47 17:49	08:13 16:47 17:49	06:46 19:55 20:57	05:30 20:57 21:54	04:34 22:09 21:26	04:30 21:26 20:11	05:17 20:11 18:51	06:19 18:51 16:33	07:19 16:33 15:44	07:25 15:44 15:43	
3	08:50 15:50 3	14:11 (B17) 16:49 17:52	08:11 16:49 17:52	06:43 19:57 20:59	05:28 20:59 21:55	04:33 22:08 21:24	04:31 21:24 20:09	05:19 20:09 18:48	06:21 18:48 16:31	07:21 16:31 15:43	07:27 15:43 15:43	
4	08:50 15:52	14:14 (B17) 16:52	08:09 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 18:28	06:21 20:32	05:59 21:33	04:53 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21		07:31 18:30	06:18 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 18:32	06:15 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 18:34	06:13 20:39	04:51 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 18:36	06:10 20:41	04:49 21:40	04:26 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:30		07:21 18:38	06:07 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	08:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32		07:18 18:40	06:05 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	08:09 16:50	08:15 15:50	08:51 15:41
27	08:24 16:34		07:16 18:42	06:02 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36		07:13 18:44	05:59 20:49	04:40 21:47	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	08:14 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	08:16 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	08:18 16:40	08:22 15:46	08:51 15:45
31	08:17 16:43		06:51 19:51	05:31 21:51	04:37 21:51	05:13 21:30	06:15 20:16	07:20 16:38	08:20 15:46	08:51 15:46	08:51 15:46	14:17 (B17)
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	19											278
Sun reduction	0.13											0.07
Oper. time red.	0.98											0.98
Wind dir. red.	0.66											0.66
Total reduction	0.09											0.05
Total, real	2											13

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April		May		June
1	08:51	08:15	07:11		06:49		05:32		04:36
	15:48	16:45	17:47		19:53		20:55		21:53
2	08:50	08:13	07:08		06:46		05:30		04:35
	15:49	16:47	17:50		19:55		20:57		21:54
3	08:50	08:11	07:06		06:43	07:21 (B1)	05:28		04:34
	15:51	16:50	17:52		19:57	10 07:31 (B1)	21:00		21:55
4	08:50	08:09	07:03		06:41	07:17 (B1)	05:26		04:33
	15:52	16:52	17:54		19:59	18 07:35 (B1)	21:02		21:57
5	08:49	08:07	07:00		06:38	07:14 (B1)	05:23		04:32
	15:53	16:54	17:56		20:01	23 07:37 (B1)	21:04		21:58
6	08:49	08:05	06:58		06:35	07:12 (B1)	05:21		04:31
	15:55	16:56	17:58		20:03	27 07:39 (B1)	21:06		21:59
7	08:48	08:03	06:55	07:21 (B4)	06:33	07:10 (B1)	05:19		04:30
	15:56	16:59	18:00	1 07:22 (B4)	20:05	30 07:40 (B1)	21:08		22:00
8	08:48	08:00	06:53	07:18 (B4)	06:30	07:08 (B1)	05:17		04:29
	15:58	17:01	18:03	7 07:25 (B4)	20:08	33 07:41 (B1)	21:10		22:01
9	08:47	07:58	06:50	07:16 (B4)	06:27	07:07 (B1)	05:15		04:28
	15:59	17:03	18:05	11 07:27 (B4)	20:10	35 07:42 (B1)	21:12		22:02
10	08:46	07:56	06:47	07:13 (B4)	06:25	07:06 (B1)	05:12		04:28
	16:01	17:05	18:07	15 07:28 (B4)	20:12	36 07:42 (B1)	21:14		22:03
11	08:45	07:54	06:45	07:10 (B4)	06:22	07:06 (B1)	05:10		04:27
	16:03	17:08	18:09	18 07:28 (B4)	20:14	37 07:43 (B1)	21:16		22:04
12	08:44	07:52	06:42	07:09 (B4)	06:20	07:04 (B1)	05:08		04:27
	16:04	17:10	18:11	20 07:29 (B4)	20:16	39 07:43 (B1)	21:18		22:05
13	08:43	07:49	06:39	07:08 (B4)	06:17	07:04 (B1)	05:06		04:26
	16:06	17:12	18:13	21 07:29 (B4)	20:18	39 07:43 (B1)	21:20		22:06
14	08:42	07:47	06:37	07:07 (B4)	06:14	07:03 (B1)	05:04		04:26
	16:08	17:14	18:15	21 07:28 (B4)	20:20	40 07:43 (B1)	21:22		22:07
15	08:41	07:45	06:34	07:07 (B4)	06:12	07:03 (B1)	05:02		04:26
	16:10	17:17	18:17	20 07:27 (B4)	20:22	40 07:43 (B1)	21:24		22:07
16	08:40	07:43	06:32	07:08 (B4)	06:09	07:02 (B1)	05:01		04:25
	16:12	17:19	18:20	19 07:27 (B4)	20:24	40 07:42 (B1)	21:25		22:08
17	08:39	07:40	06:29	07:08 (B4)	06:07	07:03 (B1)	04:59		04:25
	16:14	17:21	18:22	18 07:26 (B4)	20:26	40 07:43 (B1)	21:27		22:08
18	08:37	07:38	06:26	07:09 (B4)	06:04	07:02 (B1)	04:57		04:25
	16:16	17:23	18:24	15 07:24 (B4)	20:28	40 07:42 (B1)	21:29		22:09
19	08:36	07:35	06:23	07:11 (B4)	06:02	07:02 (B1)	04:55		04:25
	16:18	17:25	18:26	11 07:22 (B4)	20:30	40 07:42 (B1)	21:31		22:09
20	08:35	07:33	06:21	07:15 (B4)	05:59	07:02 (B1)	04:53		04:25
	16:20	17:28	18:28	3 07:18 (B4)	20:33	38 07:40 (B1)	21:33		22:10
21	08:33	07:31	06:18		05:57	07:02 (B1)	04:52		04:25
	16:22	17:30	18:30		20:35	38 07:40 (B1)	21:35		22:10
22	08:32	07:28	06:15		05:54	07:03 (B1)	04:50		04:25
	16:24	17:32	18:32		20:37	37 07:40 (B1)	21:37		22:10
23	08:30	07:26	06:13		05:52	07:03 (B1)	04:48		04:26
	16:26	17:34	18:34		20:39	35 07:38 (B1)	21:38		22:10
24	08:29	07:23	06:10		05:49	07:04 (B1)	04:47		04:26
	16:28	17:37	18:36		20:41	33 07:37 (B1)	21:40		22:10
25	08:27	07:21	06:07		05:47	07:05 (B1)	04:45	05:18 (B17)	04:26
	16:30	17:39	18:38		20:43	31 07:36 (B1)	21:42	3 05:21 (B17)	22:10
26	08:26	07:18	06:05		05:44	07:05 (B1)	04:44	05:17 (B17)	04:27
	16:32	17:41	18:40		20:45	29 07:34 (B1)	21:43	6 05:23 (B17)	22:10
27	08:24	07:16	06:02		05:42	07:07 (B1)	04:42	05:15 (B17)	04:27
	16:34	17:43	18:43		20:47	26 07:33 (B1)	21:45	8 05:23 (B17)	22:10
28	08:22	07:13	05:59		05:39	07:08 (B1)	04:41	05:14 (B17)	04:28
	16:36	17:45	18:45		20:49	23 07:31 (B1)	21:47	10 05:24 (B17)	22:10
29	08:20		06:57		05:37	07:11 (B1)	04:39	05:13 (B17)	04:28
	16:39		19:47		20:51	18 07:29 (B1)	21:48	12 05:25 (B17)	22:10
30	08:18		06:54		05:35	07:13 (B1)	04:38	05:12 (B17)	04:29
	16:41		19:49		20:53	12 07:25 (B1)	21:50	13 05:25 (B17)	22:09
31	08:17		06:51				04:37	05:11 (B17)	
	16:43		19:51				21:51	15 05:26 (B17)	
Potential sun hours	235	266	366		426		508		529
Total, worst case			200		887		67		632
Sun reduction			0.41		0.50		0.57		0.56
Oper. time red.			0.98		0.98		0.98		0.98
Wind dir. red.			0.62		0.66		0.67		0.67
Total reduction			0.25		0.32		0.37		0.37
Total, real			50		285		25		231

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December		
1	04:30		05:12 (B17)	05:16			06:17		07:04 (B1)	07:17		07:48 (B4)	07:23		08:24			
	22:09	21	05:33 (B17)	21:28			20:14	38	07:42 (B1)	18:54	20	08:08 (B4)	16:36		15:45			
2	04:31		05:12 (B17)	05:17			06:19		07:05 (B1)	07:19		07:48 (B4)	07:25		08:26			
	22:09	22	05:34 (B17)	21:26			20:11	36	07:41 (B1)	18:51	19	08:07 (B4)	16:34		15:44			
3	04:32		05:13 (B17)	05:19			06:21		07:05 (B1)	07:21		07:50 (B4)	07:27		08:28			
	22:08	21	05:34 (B17)	21:24			20:09	35	07:40 (B1)	18:48	16	08:06 (B4)	16:31		15:43			
4	04:33		05:13 (B17)	05:21			06:23		07:06 (B1)	07:23		07:52 (B4)	07:29		08:29			
	22:07	21	05:34 (B17)	21:22			20:06	33	07:39 (B1)	18:46	13	08:05 (B4)	16:29		15:42			
5	04:33		05:13 (B17)	05:23			06:25		07:06 (B1)	07:25		07:54 (B4)	07:31		08:31			
	22:07	22	05:35 (B17)	21:19			20:03	30	07:36 (B1)	18:43	9	08:03 (B4)	16:27		15:41			
6	04:35		05:14 (B17)	05:25			06:27		07:07 (B1)	07:27		07:56 (B4)	07:33		08:32			
	22:06	21	05:35 (B17)	21:17			20:01	27	07:34 (B1)	18:40	4	08:00 (B4)	16:25		15:41			
7	04:36		05:14 (B17)	05:27			06:29		07:09 (B1)	07:29			07:36		08:34			
	22:05	21	05:35 (B17)	21:15			19:58	23	07:32 (B1)	18:38			16:23		15:40			
8	04:37		05:14 (B17)	05:29			06:31		07:11 (B1)	07:32			07:38		08:35			
	22:04	21	05:35 (B17)	21:13			19:55	19	07:30 (B1)	18:35			16:21		15:40			
9	04:38		05:15 (B17)	05:31			06:33		07:15 (B1)	07:34			07:40		08:37			
	22:03	20	05:35 (B17)	21:11			19:53	10	07:25 (B1)	18:32			16:19		15:39			
10	04:39		05:16 (B17)	05:33			06:35			07:36			07:42		08:38			
	22:02	18	05:34 (B17)	21:08			19:50			18:30			16:17		15:39			
11	04:41		05:17 (B17)	05:35			06:37			07:38			07:44		08:39			
	22:01	17	05:34 (B17)	21:06			19:47			18:27			16:15		15:38			
12	04:42		05:19 (B17)	05:37		07:26 (B1)	06:39			07:40			07:46		08:40			
	22:00	16	05:35 (B17)	21:04	3	07:29 (B1)	19:45			18:25			16:13		15:38			
13	04:43		05:20 (B17)	05:39		07:20 (B1)	06:41			07:42			07:49		08:42			
	21:59	14	05:34 (B17)	21:01	14	07:34 (B1)	19:42			18:22			16:11		15:38			
14	04:45		05:21 (B17)	05:41		07:17 (B1)	06:43			07:44			07:51		08:43			
	21:58	13	05:34 (B17)	20:59	20	07:37 (B1)	19:39			18:19			16:09		15:38			
15	04:46		05:22 (B17)	05:43		07:15 (B1)	06:45			07:46			07:53		08:44			
	21:57	11	05:33 (B17)	20:57	24	07:39 (B1)	19:37			18:17			16:07		15:38			
16	04:48		05:24 (B17)	05:45		07:14 (B1)	06:47			07:48			07:55		08:45			
	21:55	9	05:33 (B17)	20:54	27	07:41 (B1)	19:34			18:14			16:06		15:38			
17	04:49		05:25 (B17)	05:47		07:12 (B1)	06:49			07:50			07:57		08:46			
	21:54	7	05:32 (B17)	20:52	29	07:41 (B1)	19:31			18:12			16:04		15:38			
18	04:51		05:27 (B17)	05:49		07:10 (B1)	06:51			07:52			07:59		08:46			
	21:52	4	05:31 (B17)	20:50	32	07:42 (B1)	19:29			18:09			16:02		15:38			
19	04:52		05:28 (B17)	05:51		07:09 (B1)	06:53			07:55			08:01		08:47			
	21:51	1	05:29 (B17)	20:47	34	07:43 (B1)	19:26			18:07			16:01		15:38			
20	04:54			05:53		07:08 (B1)	06:55			07:57			08:03		08:48			
	21:49			20:45	36	07:44 (B1)	19:23			18:04			15:59		15:38			
21	04:56			05:55		07:08 (B1)	06:57			07:59			08:05		08:48			
	21:48			20:42	36	07:44 (B1)	19:20			18:02			15:58		15:39			
22	04:57			05:57		07:07 (B1)	06:59			08:01			08:07		08:49			
	21:46			20:40	38	07:45 (B1)	19:18			17:59			15:56		15:39			
23	04:59			05:59		07:06 (B1)	07:01			08:03			08:09		08:50			
	21:45			20:37	39	07:45 (B1)	19:15			17:57			15:55		15:40			
24	05:01			06:01		07:06 (B1)	07:03		07:55 (B4)	08:05			08:11		08:50			
	21:43			20:35	39	07:45 (B1)	19:12	9	08:04 (B4)	17:55			15:53		15:40			
25	05:03			06:03		07:06 (B1)	07:05		07:52 (B4)	07:07			08:13		08:50			
	21:41			20:32	39	07:45 (B1)	19:10	14	08:06 (B4)	16:52			15:52		15:41			
26	05:04			06:05		07:04 (B1)	07:07		07:51 (B4)	07:10			08:15		08:51			
	21:39			20:29	40	07:44 (B1)	19:07	17	08:08 (B4)	16:50			15:51		15:42			
27	05:06			06:07		07:04 (B1)	07:09		07:50 (B4)	07:12			08:17		08:51			
	21:38			20:27	40	07:44 (B1)	19:04	19	08:09 (B4)	16:47			15:49		15:43			
28	05:08			06:09		07:04 (B1)	07:11		07:49 (B4)	07:14			08:19		08:51			
	21:36			20:24	40	07:44 (B1)	19:02	20	08:09 (B4)	16:45			15:48		15:44			
29	05:10			06:11		07:04 (B1)	07:13		07:48 (B4)	07:16			08:21		08:51			
	21:34			20:22	40	07:44 (B1)	18:59	21	08:09 (B4)	16:43			15:47		15:44			
30	05:12			06:13		07:04 (B1)	07:15		07:48 (B4)	07:18			08:22		08:51			
	21:32			20:19	39	07:43 (B1)	18:56	21	08:09 (B4)	16:40			15:46		15:45			
31	05:14			06:15		07:04 (B1)				07:20					08:51			
	21:30			20:17	39	07:43 (B1)				16:38					15:47			
Potential sun hours	529			469			385			324			247		216			
Total, worst case		300			648			372			81							
Sun reduction		0.49			0.50			0.43			0.26							
Oper. time red.		0.98			0.98			0.98			0.98							
Wind dir. red.		0.67			0.66			0.65			0.62							
Total reduction		0.32			0.32			0.27			0.16							
Total, real		97			207			100			13							

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
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15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
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19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	09:37 (B22)	07:11	06:49	05:33
	15:48	16:45	10:17 (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	10:17 (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	10:17 (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	10:17 (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	10:17 (B22)	17:56	20:01	21:04
6	08:49	09:46 (B22)	08:05	09:40 (B22)	06:35	05:21
	15:55	16:56	10:16 (B22)	17:58	20:03	21:06
7	08:48	09:44 (B22)	08:03	09:41 (B22)	06:33	05:19
	15:56	16:59	10:15 (B22)	18:00	20:05	21:08
8	08:48	09:43 (B22)	08:01	09:42 (B22)	06:30	05:17
	15:58	17:01	10:15 (B22)	18:03	20:08	21:10
9	08:47	09:42 (B22)	07:58	09:43 (B22)	06:28	05:15
	15:59	17:03	10:13 (B22)	18:05	20:10	21:12
10	08:46	09:41 (B22)	07:56	09:44 (B22)	06:25	05:13
	16:01	17:05	10:12 (B22)	18:07	20:12	21:14
11	08:45	09:41 (B22)	07:54	09:46 (B22)	06:22	05:11
	16:03	17:08	10:11 (B22)	18:09	20:14	21:16
12	08:44	09:40 (B22)	07:52	09:48 (B22)	06:20	05:08
	16:04	17:10	10:08 (B22)	18:11	20:16	21:18
13	08:43	09:39 (B22)	07:50	09:51 (B22)	06:17	05:06
	16:06	17:12	10:06 (B22)	18:13	20:18	21:20
14	08:42	09:39 (B22)	07:47	06:37	06:14	05:04
	16:08	17:14	18:15	20:20	21:22	06:07 (B1)
15	08:41	09:38 (B22)	07:45	06:34	06:12	05:03
	16:10	17:17	18:18	20:22	21:24	06:05 (B1)
16	08:40	09:38 (B22)	07:43	06:32	06:09	05:01
	16:12	17:19	18:20	20:24	21:25	06:04 (B1)
17	08:39	09:38 (B22)	07:40	06:29	06:07	04:59
	16:14	17:21	18:22	20:26	21:27	06:02 (B1)
18	08:37	09:37 (B22)	07:38	06:26	06:04	04:57
	16:16	17:23	18:24	20:28	21:29	04:25
19	08:36	09:37 (B22)	07:36	06:24	06:02	04:55
	16:18	17:26	18:26	20:30	21:31	04:25
20	08:35	09:37 (B22)	07:33	06:21	05:59	04:53
	16:20	17:28	18:28	20:33	21:33	04:25
21	08:33	09:37 (B22)	07:31	06:18	05:57	04:52
	16:22	17:30	18:30	20:35	21:35	04:25
22	08:32	09:36 (B22)	07:28	06:16	05:54	04:50
	16:24	17:32	18:32	20:37	21:37	04:25
23	08:30	09:36 (B22)	07:26	06:13	05:52	04:48
	16:26	17:34	18:34	20:39	21:38	04:25
24	08:29	09:37 (B22)	07:23	06:10	05:49	04:47
	16:28	17:37	18:36	20:41	21:40	04:25
25	08:27	09:37 (B22)	07:21	06:07	05:47	04:45
	16:30	17:39	18:38	20:43	21:42	04:25
26	08:26	09:37 (B22)	07:18	06:05	05:44	04:44
	16:32	17:41	18:41	20:45	21:43	04:25
27	08:24	09:37 (B22)	07:16	06:02	05:42	04:42
	16:34	17:43	18:43	20:47	21:45	04:25
28	08:22	09:37 (B22)	07:13	05:59	05:40	04:41
	16:36	17:45	18:45	20:49	21:47	04:25
29	08:20	09:37 (B22)	07:11	06:57	05:37	04:40
	16:39	17:41	19:47	20:51	21:48	04:25
30	08:18	09:37 (B22)	07:09	06:54	05:35	04:38
	16:41	17:41	19:49	20:53	21:50	04:25
31	08:17	09:38 (B22)	07:07	06:51	05:33	04:37
	16:43	17:41	19:51	20:55	21:51	04:25
Potential sun hours	235	266	366	426	508	529
Total, worst case	803	414			255	
Sun reduction	0.13	0.20			0.57	
Oper. time red.	0.98	0.98			0.98	
Wind dir. red.	0.61	0.61			0.67	
Total reduction	0.08	0.12			0.36	
Total, real	62	48			92	

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July		August		September		October		November		December	
1	04:30		05:16	05:59 (B1)	06:17	07:17			07:23	09:14 (B22)	08:24	09:23 (B22)
	22:09		21:28	19 06:18 (B1)	20:14	18:54			16:36	28 09:42 (B22)	15:45	22 09:45 (B22)
2	04:31		05:18	05:59 (B1)	06:19	07:19			07:25	09:12 (B22)	08:26	09:24 (B22)
	22:09		21:26	19 06:18 (B1)	20:11	18:51			16:34	31 09:43 (B22)	15:44	21 09:45 (B22)
3	04:32		05:19	05:59 (B1)	06:21	07:21			07:27	09:12 (B22)	08:28	09:25 (B22)
	22:08		21:24	20 06:19 (B1)	20:09	18:48			16:32	33 09:45 (B22)	15:43	18 09:43 (B22)
4	04:33		05:21	05:59 (B1)	06:23	07:23			07:29	09:11 (B22)	08:29	09:27 (B22)
	22:07		21:22	20 06:19 (B1)	20:06	18:46			16:29	34 09:45 (B22)	15:42	15 09:42 (B22)
5	04:34		05:23	05:58 (B1)	06:25	07:25			07:31	09:10 (B22)	08:31	09:29 (B22)
	22:07		21:20	20 06:18 (B1)	20:03	18:43			16:27	36 09:46 (B22)	15:42	12 09:41 (B22)
6	04:35		05:25	05:58 (B1)	06:27	07:27			07:33	09:10 (B22)	08:32	09:32 (B22)
	22:06		21:17	20 06:18 (B1)	20:01	18:40			16:25	37 09:47 (B22)	15:41	8 09:40 (B22)
7	04:36		05:27	06:00 (B1)	06:29	07:30			07:36	09:09 (B22)	08:34	
	22:05		21:15	18 06:18 (B1)	19:58	18:38			16:23	38 09:47 (B22)	15:40	
8	04:37		05:29	06:02 (B1)	06:31	07:32			07:38	09:09 (B22)	08:35	
	22:04		21:13	16 06:18 (B1)	19:55	18:35			16:21	39 09:48 (B22)	15:40	
9	04:38		05:31	06:04 (B1)	06:33	07:34			07:40	09:08 (B22)	08:37	
	22:03		21:11	13 06:17 (B1)	19:53	18:32			16:19	40 09:48 (B22)	15:39	
10	04:39		05:33	06:06 (B1)	06:35	07:36			07:42	09:09 (B22)	08:38	
	22:02		21:08	11 06:17 (B1)	19:50	18:30			16:17	40 09:49 (B22)	15:39	
11	04:41		05:35	06:07 (B1)	06:37	07:38			07:44	09:09 (B22)	08:39	
	22:01		21:06	8 06:15 (B1)	19:47	18:27			16:15	40 09:49 (B22)	15:38	
12	04:42		05:37	06:09 (B1)	06:39	07:40			07:46	09:08 (B22)	08:40	
	22:00		21:04	4 06:13 (B1)	19:45	18:25			16:13	41 09:49 (B22)	15:38	
13	04:43		05:39		06:41	07:42			07:49	09:09 (B22)	08:42	
	21:59		21:02		19:42	18:22			16:11	41 09:50 (B22)	15:38	
14	04:45		05:41		06:43	07:44			07:51	09:09 (B22)	08:43	
	21:58		20:59		19:39	18:19			16:09	40 09:49 (B22)	15:38	
15	04:46		05:43		06:45	07:46			07:53	09:09 (B22)	08:44	
	21:57		20:57		19:37	18:17			16:08	40 09:49 (B22)	15:38	
16	04:48		05:45		06:47	07:48			07:55	09:10 (B22)	08:45	
	21:55		20:54		19:34	18:14			16:06	40 09:50 (B22)	15:38	
17	04:49		05:47		06:49	07:50			07:57	09:10 (B22)	08:46	
	21:54		20:52		19:31	18:12			16:04	39 09:49 (B22)	15:38	
18	04:51		05:49		06:51	07:52			07:59	09:11 (B22)	08:46	
	21:52		20:50		19:29	18:09			16:02	39 09:50 (B22)	15:38	
19	04:52		05:51		06:53	07:55			08:01	09:11 (B22)	08:47	
	21:51		20:47		19:26	18:07			16:01	38 09:49 (B22)	15:38	
20	04:54		05:53		06:55	07:57			08:03	09:11 (B22)	08:48	
	21:49		20:45		19:23	18:04			15:59	38 09:49 (B22)	15:39	
21	04:56		05:55		06:57	07:59			08:05	09:12 (B22)	08:48	
	21:48		20:42		19:20	18:02			15:58	36 09:48 (B22)	15:39	
22	04:57		05:57		06:59	08:01			08:07	09:13 (B22)	08:49	
	21:46		20:40		19:18	17:59			15:56	36 09:49 (B22)	15:39	
23	04:59		05:59		07:01	08:03			08:09	09:14 (B22)	08:50	
	21:45		20:37		19:15	17:57			15:55	35 09:49 (B22)	15:40	
24	05:01		06:01		07:03	08:05			08:11	09:14 (B22)	08:50	
	21:43		20:35		19:12	17:55			15:53	34 09:48 (B22)	15:41	
25	05:03		06:03		07:05	07:07			08:13	09:15 (B22)	08:50	
	21:41		20:32		19:10	16:52			15:52	33 09:48 (B22)	15:41	
26	05:04	06:08 (B1)	06:05		07:07	07:10			08:15	09:16 (B22)	08:51	
	21:39	2 06:10 (B1)	20:30		19:07	16:50			15:51	31 09:47 (B22)	15:42	
27	05:06	06:05 (B1)	06:07		07:09	07:12			08:17	09:18 (B22)	08:51	
	21:38	9 06:14 (B1)	20:27		19:04	16:47			15:49	29 09:47 (B22)	15:43	
28	05:08	06:03 (B1)	06:09		07:11	07:14	09:24 (B22)	08:19	08:19	09:19 (B22)	08:51	
	21:36	12 06:15 (B1)	20:24		19:02	16:45	6 09:30 (B22)	15:48	28 09:47 (B22)	15:44		
29	05:10	06:02 (B1)	06:11		07:13	07:16	09:20 (B22)	08:21	09:20 (B22)	08:51		
	21:34	14 06:16 (B1)	20:22		18:59	16:43	16 09:36 (B22)	15:47	26 09:46 (B22)	15:45		
30	05:12	06:01 (B1)	06:13		07:15	07:18	09:17 (B22)	08:22	09:21 (B22)	08:51		
	21:32	16 06:17 (B1)	20:19		18:56	16:40	21 09:38 (B22)	15:46	25 09:46 (B22)	15:46		
31	05:14	06:01 (B1)	06:15			07:20	09:15 (B22)			08:51		
	21:30	17 06:18 (B1)	20:17			16:38	25 09:40 (B22)			15:47		
Potential sun hours	529		469		385	324		247		216		
Total, worst case	70		188			68		1065		96		
Sun reduction	0.49		0.50			0.26		0.08		0.07		
Oper. time red.	0.98		0.98			0.98		0.98		0.98		
Wind dir. red.	0.67		0.67			0.61		0.61		0.61		
Total reduction	0.31		0.32			0.15		0.05		0.04		
Total, real	22		59			10		51		4		

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:12	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
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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	06:10 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:31 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
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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
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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
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:12 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:46 16:00	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:51 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:05	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:05 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:52 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:47	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:50	08:50 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	07:14 16:45	08:18 15:48	08:51 15:44
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30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:41	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April	May	June
1	08:51		10:17 (B1)	08:15		07:11				06:49	05:32	04:36
	15:48	20	10:37 (B1)	16:45		17:47				19:53	20:55	21:53
2	08:51		10:19 (B1)	08:13		07:08			07:34 (B17)	06:46	05:30	04:34
	15:49	19	10:38 (B1)	16:47		17:50		9	07:43 (B17)	19:55	20:57	21:54
3	08:50		10:19 (B1)	08:11		07:06			07:32 (B17)	06:43	05:28	04:33
	15:50	18	10:37 (B1)	16:50		17:52		15	07:47 (B17)	19:57	21:00	21:55
4	08:50		10:19 (B1)	08:09		07:03			07:29 (B17)	06:41	05:25	04:32
	15:52	18	10:37 (B1)	16:52		17:54		19	07:48 (B17)	19:59	21:02	21:57
5	08:49		10:21 (B1)	08:07		07:00			07:27 (B17)	06:38	05:23	04:31
	15:53	17	10:38 (B1)	16:54		17:56		22	07:49 (B17)	20:01	21:04	21:58
6	08:49		10:22 (B1)	08:05		06:58			07:26 (B17)	06:35	05:21	04:31
	15:55	15	10:37 (B1)	16:56		17:58		25	07:51 (B17)	20:03	21:06	21:59
7	08:48		10:23 (B1)	08:03		06:55			07:25 (B17)	06:33	05:19	04:30
	15:56	14	10:37 (B1)	16:58		18:00		26	07:51 (B17)	20:05	21:08	22:00
8	08:48		10:25 (B1)	08:01		06:53			07:24 (B17)	06:30	05:17	04:29
	15:58	11	10:36 (B1)	17:01		18:03		27	07:51 (B17)	20:08	21:10	22:01
9	08:47		10:26 (B1)	07:58		06:50			07:24 (B17)	06:27	05:15	04:28
	15:59	9	10:35 (B1)	17:03		18:05		28	07:52 (B17)	20:10	21:12	22:02
10	08:46		10:30 (B1)	07:56		06:47			07:23 (B17)	06:25	05:12	04:28
	16:01	3	10:33 (B1)	17:05		18:07		28	07:51 (B17)	20:12	21:14	22:03
11	08:45			07:54		06:45			07:23 (B17)	06:22	05:10	04:27
	16:03			17:07		18:09		28	07:51 (B17)	20:14	21:16	22:04
12	08:44			07:52		06:42			07:23 (B17)	06:20	05:08	04:27
	16:04			17:10		18:11		28	07:51 (B17)	20:16	21:18	22:05
13	08:43			07:49		06:39			07:23 (B17)	06:17	05:06	04:26
	16:06			17:12		18:13		27	07:50 (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		26	07:49 (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		25	07:48 (B17)	20:22	21:24	22:07
16	08:40			07:43		06:31			07:25 (B17)	06:09	05:00	04:25
	16:12			17:19		18:20		22	07:47 (B17)	20:24	21:26	22:08
17	08:39			07:40		06:29			07:25 (B17)	06:07	04:59	04:25
	16:14			17:21		18:22		20	07:45 (B17)	20:26	21:27	22:09
18	08:38			07:38		06:26			07:27 (B17)	06:04	04:57	04:25
	16:15			17:23		18:24		16	07:43 (B17)	20:28	21:29	22:09
19	08:36			07:35		06:23			07:30 (B17)	06:02	04:55	04:25
	16:17			17:25		18:26		10	07:40 (B17)	20:30	21:31	22:09
20	08:35			07:33		06:21				05:59	04:53	04:25
	16:19			17:28		18:28				20:33	21:33	22:10
21	08:33			07:31		06:18				05:57	04:51	04:25
	16:21			17:30		18:30				20:35	21:35	22:10
22	08:32			07:28		06:15				05:54	04:50	04:25
	16:24			17:32		18:32				20:37	21:37	22:10
23	08:30			07:26		06:13				05:52	04:48	04:25
	16:26			17:34		18:34				20:39	21:38	22:10
24	08:29			07:23		06:10				05:49	04:47	04:26
	16:28			17:36		18:36				20:41	21:40	22:11
25	08:27			07:21		06:07				05:47	04:45	04:26
	16:30			17:39		18:38				20:43	21:42	22:11
26	08:26			07:18		06:05				05:44	04:43	04:27
	16:32			17:41		18:40				20:45	21:43	22:10
27	08:24			07:16		06:02				05:42	04:42	04:27
	16:34			17:43		18:43				20:47	21:45	22:10
28	08:22			07:13		05:59				05:39	04:41	04:28
	16:36			17:45		18:45				20:49	21:47	22:10
29	08:20					06:57				05:37	04:39	04:28
	16:38					19:47				20:51	21:48	22:10
30	08:19					06:54				05:35	04:38	04:29
	16:41					19:49				20:53	21:50	22:09
31	08:17					06:51					04:37	
	16:43					19:51					21:51	
Potential sun hours	235			266		366			426	508	529	
Total, worst case		144				401						
Sun reduction		0.13				0.41						
Oper. time red.		0.98				0.98						
Wind dir. red.		0.61				0.62						
Total reduction		0.08				0.25						
Total, real		11				100						

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:54	08:02 (B17) 08:30 (B17)	07:23 16:36
2	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	08:02 (B17) 08:30 (B17)	07:25 16:34
3	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	08:01 (B17) 08:30 (B17)	07:27 16:31
4	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	08:01 (B17) 08:29 (B17)	07:29 16:29
5	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	08:01 (B17) 08:28 (B17)	07:31 16:27
6	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	08:01 (B17) 08:27 (B17)	07:33 16:25
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	08:01 (B17) 08:26 (B17)	07:36 16:23
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	08:02 (B17) 08:25 (B17)	07:38 16:21
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	08:04 (B17) 08:24 (B17)	07:40 16:19
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:05 (B17) 08:22 (B17)	07:42 16:17
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:07 (B17) 08:19 (B17)	07:44 16:15
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 18:19	07:51 16:09	08:43 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:07	08:44 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	05:02 21:41	06:03 20:32	07:05 19:10	08:10 17:52	08:13 15:52	08:50 15:41
26	05:04 21:39	06:05 20:30	07:07 19:07	08:08 (B17) 08:26 (B17)	07:10 16:50	08:15 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:07 (B17) 08:29 (B17)	07:12 16:47	08:17 15:49
28	05:08 21:36	06:09 20:24	07:11 19:02	08:05 (B17) 08:29 (B17)	07:14 16:45	08:19 15:48
29	05:10 21:34	06:11 20:22	07:13 18:59	08:04 (B17) 08:30 (B17)	07:16 16:43	08:21 15:47
30	05:12 21:32	06:13 20:19	07:15 18:56	08:03 (B17) 08:30 (B17)	07:18 16:40	08:22 15:46
31	05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:46
Potential sun hours	529	469	385	324	247	216
Total, worst case			138	263		579
Sun reduction			0.43	0.26		0.07
Oper. time red.			0.98	0.98		0.98
Wind dir. red.			0.62	0.62		0.61
Total reduction			0.26	0.16		0.04
Total, real			36	41		24

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December		
1	08:51 15:48	08:15 16:45	07:11 17:47	07:37 (B1) 18 07:55 (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	08:16 (B1) 11 08:27 (B1)	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	07:34 (B1) 22 07:56 (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	08:14 (B1) 15 08:29 (B1)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	07:33 (B1) 24 07:57 (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	08:12 (B1) 19 08:31 (B1)	07:27 16:31	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	07:32 (B1) 25 07:57 (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	08:10 (B1) 21 08:31 (B1)	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	07:32 (B1) 24 07:56 (B1)	06:38 20:01	05:23 21:04	04:32 21:58	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	08:09 (B1) 23 08:32 (B1)	07:31 16:27	08:31 15:41
6	08:49 15:55	08:05 16:56	06:58 17:58	07:32 (B1) 25 07:57 (B1)	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	08:08 (B1) 24 08:32 (B1)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:00	07:32 (B1) 24 07:56 (B1)	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	08:07 (B1) 25 08:32 (B1)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	07:32 (B1) 23 07:55 (B1)	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	08:07 (B1) 24 08:31 (B1)	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	07:33 (B1) 22 07:55 (B1)	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	08:08 (B1) 24 08:32 (B1)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	07:33 (B1) 20 07:53 (B1)	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:07 (B1) 24 08:31 (B1)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	07:34 (B1) 17 07:51 (B1)	06:22 20:14	05:10 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:07 (B1) 23 08:30 (B1)	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	07:36 (B1) 14 07:50 (B1)	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	08:09 (B1) 20 08:29 (B1)	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	07:39 (B1) 6 07:45 (B1)	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	08:11 (B1) 17 08:28 (B1)	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	07:41 (B1) 13 07:46 (B1)	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	08:13 (B1) 13 08:26 (B1)	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	07:42 (B1) 9 07:47 (B1)	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	08:16 (B1) 9 08:25 (B1)	07:53 16:07	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	07:43 (B1) 2 07:48 (B1)	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	08:18 (B1) 2 08:20 (B1)	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	07:44 (B1) 18 07:49 (B1)	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	08:19 (B1) 17 08:27 (B1)	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	07:45 (B1) 19 07:50 (B1)	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	08:20 (B1) 16 08:25 (B1)	07:59 16:02	08:46 15:38
19	08:36 16:18	07:36 17:25	06:24 18:26	07:46 (B1) 20 07:51 (B1)	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	08:21 (B1) 15 08:26 (B1)	07:57 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	07:47 (B1) 21 07:52 (B1)	06:01 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	08:22 (B1) 14 08:27 (B1)	07:57 15:59	08:48 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30	07:48 (B1) 22 07:53 (B1)	06:00 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	08:23 (B1) 13 08:28 (B1)	07:59 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	07:49 (B1) 23 07:54 (B1)	06:00 20:37	04:51 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:24 (B1) 12 08:29 (B1)	08:01 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	07:50 (B1) 24 07:55 (B1)	06:00 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	08:25 (B1) 11 08:30 (B1)	08:03 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	07:51 (B1) 25 07:56 (B1)	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	08:26 (B1) 10 08:31 (B1)	08:05 15:53	08:50 15:40
25	08:27 16:30	07:21 17:39	06:07 18:38	07:52 (B1) 26 07:57 (B1)	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	08:27 (B1) 9 08:32 (B1)	08:07 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	07:53 (B1) 27 07:58 (B1)	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:30	07:07 19:07	08:08 16:50	08:28 (B1) 8 08:33 (B1)	08:08 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	07:54 (B1) 28 07:59 (B1)	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:09 16:47	08:29 (B1) 7 08:34 (B1)	08:09 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	07:55 (B1) 29 07:60 (B1)	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:10 16:45	08:30 (B1) 6 08:35 (B1)	08:10 15:48	08:51 15:44
29	08:20 16:39	07:10 17:40	05:57 18:43	07:56 (B1) 30 07:61 (B1)	05:37 20:47	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:11 16:43	08:31 (B1) 5 08:36 (B1)	08:11 15:47	08:51 15:44
30	08:19 16:41	07:09 17:39	05:54 18:40	07:57 (B1) 31 07:62 (B1)	05:35 20:45	04:38 21:46	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:12 16:40	08:32 (B1) 4 08:37 (B1)	08:12 15:46	08:51 15:45
31	08:17 16:43	07:07 17:37	05:51 18:37	07:58 (B1) 32 07:63 (B1)	05:33 20:43	04:37 21:44	04:27 22:08	05:14 21:30	06:15 20:17	07:16 18:57	08:13 16:38	08:33 (B1) 3 08:38 (B1)	08:13 15:47	08:51 15:47
Potential sun hours	235	266	300	366	426	508	529	529	469	385	324	294	247	216
Total, worst case				264								294		
Sun reduction		0.20		0.41								0.26		
Oper. time red.		0.98		0.98								0.98		
Wind dir. red.		0.62		0.62								0.62		
Total reduction		0.12		0.25								0.16		
Total, real		4		66								46		

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:48 19:53	05:32 20:55	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:02	04:32 21:57	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:36 16:23	08:34 15:40
8	08:48 15:57	08:00 17:01	06:53 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:33 18:32	07:40 16:19	08:37 15:39
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11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:24	07:46 16:13	08:40 15:38
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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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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
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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
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24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
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29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:47	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:49	08:15 16:46	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
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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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Total, worst case												
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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 05:23/4.0.531

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:55 (B14)	06:49	05:33
	15:48	16:45	17:48	27 08:22 (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	26 08:21 (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	25 08:21 (B14)	19:57	21:00
4	08:50	08:09	07:03	07:57 (B14)	06:41	05:26
	15:52	16:52	17:54	22 08:19 (B14)	19:59	21:02
5	08:49	08:07	07:01	07:58 (B14)	06:38	05:24
	15:54	16:54	17:56	19 08:17 (B14)	20:01	21:04
6	08:49	08:05	06:58	08:01 (B14)	06:36	05:21
	15:55	16:56	17:58	14 08:15 (B14)	20:03	21:06
7	08:48	08:03	06:55	08:04 (B14)	06:33	05:19
	15:56	16:59	18:01	6 08:10 (B14)	20:06	21:08
8	08:48	08:01	06:53		06:30	05:17
	15:58	17:01	18:03		20:08	21:10
9	08:47	07:58	06:50		06:56 (B22)	05:15
	16:00	17:03	18:05		20:10	21:12
10	08:46	07:56	06:48		06:53 (B22)	05:13
	16:01	17:05	18:07		20:12	21:14
11	08:45	07:54	06:45		06:50 (B22)	05:11
	16:03	17:08	18:09		20:14	21:16
12	08:44	07:52	06:42		06:48 (B22)	05:09
	16:05	17:10	18:11		20:16	21:18
13	08:43	07:50	06:40		07:01 (B22)	05:07
	16:06	17:12	18:13		20:18	21:20
14	08:42	07:47	06:37		07:02 (B22)	05:05
	16:08	17:14	18:15		20:20	21:22
15	08:41	07:45	06:34		06:40 (B22)	05:03
	16:10	17:17	18:18		20:22	21:24
16	08:40	07:43	06:32		06:40 (B22)	05:01
	16:12	17:19	18:20		20:24	21:26
17	08:39	07:40	06:29		07:00 (B22)	04:59
	16:14	17:21	18:22		20:26	21:27
18	08:38	07:38	06:26		06:40 (B22)	04:57
	16:16	17:23	18:24		20:28	21:29
19	08:36	07:36	06:24		06:58 (B22)	04:55
	16:18	17:26	18:26		20:30	21:31
20	08:35	07:33	06:21		06:42 (B22)	04:53
	16:20	17:28	18:28		20:32	21:33
21	08:33	07:31	06:18		06:40 (B22)	04:51
	16:22	17:30	18:30		20:34	21:35
22	08:32	07:28	06:16		06:52 (B22)	04:50
	16:24	17:32	18:32		20:36	21:37
23	08:30	07:26	06:13		05:52	04:48
	16:26	17:34	18:34		20:38	21:38
24	08:29	07:23	06:10		06:50 (B22)	04:47
	16:28	17:37	18:36		20:40	21:40
25	08:27	07:21	06:08		06:48 (B22)	04:45
	16:30	17:39	18:39		20:42	21:42
26	08:26	07:18	06:05		06:46 (B22)	04:44
	16:32	17:41	18:41		20:44	21:43
27	08:24	07:16	06:02		06:44 (B22)	04:42
	16:34	17:43	18:43		20:46	21:45
28	08:22	07:13	06:00		06:42 (B22)	04:41
	16:37	17:45	18:45		20:48	21:47
29	08:20		05:57		06:40 (B22)	04:40
	16:39		19:47		20:50	21:48
30	08:19		06:54		05:35	04:38
	16:41		19:49		20:53	21:50
31	08:17		06:51			04:37
	16:43		19:51			21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		285	139		200	
Sun reduction		0.20	0.41		0.50	
Oper. time red.		0.98	0.98		0.98	
Wind dir. red.		0.63	0.63		0.66	
Total reduction		0.12	0.25		0.32	
Total, real		35	35	64		

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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:47 (B22)	07:17	07:23
	22:09	21:28	20:14	13 07:00 (B22)	18:54	16:36
2	04:31	05:18	06:19	06:49 (B22)	07:19	07:25
	22:09	21:26	20:11	10 06:59 (B22)	18:51	16:34
3	04:32	05:20	06:21	06:51 (B22)	07:21	07:27
	22:08	21:24	20:09	7 06:58 (B22)	18:48	16:32
4	04:33	05:22	06:23	06:53 (B22)	07:23	07:29
	22:07	21:22	20:06	3 06:56 (B22)	18:46	16:30
5	04:34	05:23	06:25	07:25	18:43	16:27
	22:07	21:20	20:04	18:43	16:27	15:42
6	04:35	05:25	06:27	07:28	18:40	16:25
	22:06	21:17	20:01	18:40	16:25	15:41
7	04:36	05:27	06:29	07:30	08:37 (B14)	07:36
	22:05	21:15	19:58	18:38	11 08:48 (B14)	16:23
8	04:37	05:29	06:31	07:32	08:34 (B14)	07:38
	22:04	21:13	19:56	18:35	17 08:51 (B14)	16:21
9	04:38	05:31	06:33	07:34	08:33 (B14)	07:40
	22:03	21:11	19:53	18:33	20 08:53 (B14)	16:19
10	04:40	05:33	06:35	07:36	08:31 (B14)	07:42
	22:02	21:08	19:50	18:30	23 08:54 (B14)	16:17
11	04:41	05:35	06:37	07:38	08:30 (B14)	07:44
	22:01	21:06	19:47	18:27	25 08:55 (B14)	16:15
12	04:42	05:37	06:39	07:40	08:29 (B14)	07:46
	22:00	21:04	19:45	18:25	26 08:55 (B14)	16:13
13	04:44	05:39	06:41	07:42	08:28 (B14)	07:49
	21:59	21:02	19:42	18:22	27 08:55 (B14)	16:11
14	04:45	05:41	06:43	07:44	08:27 (B14)	07:51
	21:58	20:59	19:39	18:20	28 08:55 (B14)	16:10
15	04:46	05:43	06:45	07:46	08:27 (B14)	07:53
	21:57	20:57	19:37	18:17	29 08:56 (B14)	16:08
16	04:48	05:45	06:47	07:48	08:27 (B14)	07:55
	21:55	20:54	19:34	18:15	29 08:56 (B14)	16:06
17	04:49	05:47	06:49	07:50	08:26 (B14)	07:57
	21:54	20:52	19:31	18:12	29 08:55 (B14)	16:04
18	04:51	05:49	06:51	07:52	08:26 (B14)	07:59
	21:52	20:50	19:29	18:09	29 08:55 (B14)	16:03
19	04:53	05:51	06:53	07:55	08:27 (B14)	08:01
	21:51	20:47	19:26	18:07	28 08:55 (B14)	16:01
20	04:54	05:53	06:55	07:57	08:27 (B14)	08:03
	21:49	20:45	19:23	18:04	27 08:54 (B14)	15:59
21	04:56	05:55	06:57	07:59	08:29 (B14)	08:05
	21:48	20:42	19:21	18:02	23 08:52 (B14)	15:58
22	04:58	05:57	06:59	08:01	08:31 (B14)	08:07
	21:46	20:40	7 06:57 (B22)	18:00	20 08:51 (B14)	15:56
23	04:59	05:59	06:47 (B22)	08:03	08:34 (B14)	08:09
	21:45	20:37	12 06:59 (B22)	17:57	16 08:50 (B14)	15:55
24	05:01	06:01	06:45 (B22)	08:05	08:36 (B14)	08:11
	21:43	20:35	16 07:01 (B22)	17:55	12 08:48 (B14)	15:53
25	05:03	06:03	06:44 (B22)	07:07	07:38 (B14)	08:13
	21:41	20:32	18 07:02 (B22)	16:52	7 07:45 (B14)	15:52
26	05:05	06:05	06:43 (B22)	07:10		08:15
	21:39	20:30	19 07:02 (B22)	16:50		15:51
27	05:06	06:07	06:42 (B22)	07:12		08:17
	21:38	20:27	21 07:03 (B22)	16:48		15:50
28	05:08	06:09	06:41 (B22)	07:14		08:19
	21:36	20:24	21 07:02 (B22)	16:45		15:48
29	05:10	06:11	06:41 (B22)	07:16		08:21
	21:34	20:22	21 07:02 (B22)	16:43		15:47
30	05:12	06:13	06:43 (B22)	07:18		08:22
	21:32	20:19	19 07:02 (B22)	16:41		15:46
31	05:14	06:15	06:45 (B22)	07:20		08:51
	21:30	20:17	16 07:01 (B22)	16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		170	33		426	
Sun reduction		0.50	0.43		0.26	
Oper. time red.		0.98	0.98		0.98	
Wind dir. red.		0.66	0.66		0.63	
Total reduction		0.32	0.27		0.16	
Total, real		54	9	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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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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

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2	08:51 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:51	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:02	04:32 21:57	04:32 22:08	05:21 21:22	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
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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
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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
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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
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	07:19 (B24) 20:55	06:18 (B14) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	07:19 (B24) 20:57	06:18 (B14) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	07:20 (B24) 21:00	06:18 (B14) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:20 (B24) 21:02	06:19 (B14) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	07:22 (B24) 21:04	06:19 (B14) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:20 (B14) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:21 (B14) 22:00
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:21 (B14) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:22 (B14) 22:02
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	06:24 (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	06:27 (B14) 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:37 (B14) 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:43 (B14) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:44 (B14) 22:08
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:45 (B14) 22:09
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:46 (B14) 22:10
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:47 (B14) 22:11
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	06:48 (B14) 22:12
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	06:49 (B14) 22:13
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:50 (B14) 22:14
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	06:51 (B14) 22:15
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	06:52 (B14) 22:16
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:53 (B14) 22:17
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	06:54 (B14) 22:18
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	06:55 (B14) 22:19
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	06:56 (B14) 22:20
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	06:57 (B14) 22:21
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	06:58 (B14) 22:22
30	08:18 16:41	07:09 17:49	05:54 18:49	05:35 20:53	04:38 21:50	06:59 (B14) 22:23
31	08:17 16:43	07:08 17:48	05:52 18:48	05:33 20:51	04:37 21:49	07:00 (B14) 22:24
Potential sun hours	235	266	366	426	508	528
Total, worst case			93	400	285	
Sun reduction			0.41	0.50	0.57	
Oper. time red.			0.98	0.98	0.98	
Wind dir. red.			0.66	0.65	0.65	
Total reduction			0.26	0.32	0.36	
Total, real			25	127	103	

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:38 (B14)	06:17	07:17	07:23
	22:09	21:28	11 06:49 (B14)	20:14	18:54	16:36
2	04:31	05:18	06:35 (B14)	06:19	07:19	07:25
	22:08	21:26	16 06:51 (B14)	20:11	18:51	16:34
3	04:32	05:20	06:33 (B14)	06:21	07:21	07:27
	22:08	21:24	19 06:52 (B14)	20:09	18:48	16:32
4	04:33	05:22	06:32 (B14)	06:23	07:23	07:29
	22:07	21:22	22 06:54 (B14)	20:06	18:46	16:30
5	04:34	05:24	06:31 (B14)	06:25	07:25	07:31
	22:07	21:20	24 06:55 (B14)	20:03	18:43	16:27
6	04:35	05:25	06:30 (B14)	06:27	07:28	07:33
	22:06	21:17	25 06:55 (B14)	20:01	18:40	16:25
7	04:36	05:27	06:29 (B14)	06:29	07:17 (B24)	07:30
	22:05	21:15	27 06:56 (B14)	19:58	10 07:27 (B24)	18:38
8	04:37	05:29	06:28 (B14)	06:31	07:15 (B24)	07:32
	22:04	21:13	29 06:57 (B14)	19:56	14 07:29 (B24)	18:35
9	04:38	05:31	06:28 (B14)	06:33	07:13 (B24)	07:34
	22:03	21:11	29 06:57 (B14)	19:53	17 07:30 (B24)	18:33
10	04:40	05:33	06:28 (B14)	06:35	07:12 (B24)	07:36
	22:02	21:08	30 06:58 (B14)	19:50	18 07:30 (B24)	18:30
11	04:41	05:35	06:27 (B14)	06:37	07:11 (B24)	07:38
	22:01	21:06	31 06:58 (B14)	19:47	20 07:31 (B24)	18:27
12	04:42	05:37	06:26 (B14)	06:39	07:11 (B24)	07:40
	22:00	21:04	31 06:57 (B14)	19:45	20 07:31 (B24)	18:25
13	04:44	05:39	06:26 (B14)	06:41	07:10 (B24)	07:42
	21:59	21:02	31 06:57 (B14)	19:42	20 07:30 (B24)	18:22
14	04:45	05:41	06:26 (B14)	06:43	07:12 (B24)	07:44
	21:58	20:59	31 06:57 (B14)	19:39	18 07:30 (B24)	18:20
15	04:46	05:43	06:26 (B14)	06:45	07:14 (B24)	07:46
	21:57	20:57	31 06:57 (B14)	19:37	15 07:29 (B24)	18:17
16	04:48	05:45	06:26 (B14)	06:47	07:16 (B24)	07:48
	21:55	20:54	31 06:57 (B14)	19:34	12 07:28 (B24)	18:15
17	04:49	05:47	06:27 (B14)	06:49	07:18 (B24)	07:50
	21:54	20:52	29 06:56 (B14)	19:31	8 07:26 (B24)	18:12
18	04:51	05:49	06:27 (B14)	06:51	07:20 (B24)	07:52
	21:52	20:50	29 06:56 (B14)	19:29	4 07:24 (B24)	18:09
19	04:53	05:51	06:27 (B14)	06:53	07:55	08:01
	21:51	20:47	27 06:54 (B14)	19:26	18:07	16:01
20	04:54	05:53	06:27 (B14)	06:55	07:57	08:03
	21:49	20:45	26 06:53 (B14)	19:23	18:04	15:59
21	04:56	05:55	06:28 (B14)	06:57	07:59	08:05
	21:48	20:42	24 06:52 (B14)	19:21	18:02	15:58
22	04:58	05:57	06:29 (B14)	06:59	08:01	08:07
	21:46	20:40	22 06:51 (B14)	19:18	18:00	15:56
23	04:59	05:59	06:31 (B14)	07:01	08:03	08:09
	21:45	20:37	18 06:49 (B14)	19:15	17:57	15:55
24	05:01	06:01	06:33 (B14)	07:03	08:05	08:11
	21:43	20:35	13 06:46 (B14)	19:12	17:55	15:53
25	05:03	06:03	06:38 (B14)	07:05	07:07	08:13
	21:41	20:32	3 06:41 (B14)	19:10	16:52	15:52
26	05:05	06:05		07:07	07:10	08:15
	21:39	20:30		19:07	16:50	15:51
27	05:06	06:07		07:09	07:12	08:17
	21:38	20:27		19:04	16:48	15:50
28	05:08	06:09		07:11	07:14	08:19
	21:36	20:24		19:02	16:45	15:48
29	05:10	06:11		07:13	07:16	08:21
	21:34	20:22		18:59	16:43	15:47
30	05:12	06:13		07:15	07:18	08:22
	21:32	20:19		18:56	16:41	15:46
31	05:14	06:15			07:20	08:51
	21:30	20:17			16:38	15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	3	609	176			
Sun reduction	0.49	0.50	0.43			
Oper. time red.	0.98	0.98	0.98			
Wind dir. red.	0.65	0.65	0.66			
Total reduction	0.31	0.32	0.27			
Total, real	1	193	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:36 21:53
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:16 (B1) 07:30 (B1)	05:26 21:02
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	07:13 (B1) 07:32 (B1)	05:23 21:04
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	07:11 (B1) 07:35 (B1)	05:21 21:06
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	07:08 (B1) 07:36 (B1)	05:19 21:08
8	08:48 15:58	08:00 17:01	06:53 18:03	07:18 (B4) 07:19 (B4)	06:30 20:08	05:17 21:10
9	08:47 15:59	07:58 17:03	06:50 18:05	07:16 (B4) 07:23 (B4)	06:27 20:10	05:15 21:12
10	08:46 16:01	07:56 17:05	06:47 18:07	07:13 (B4) 07:24 (B4)	06:25 20:12	05:13 21:14
11	08:45 16:03	07:54 17:08	06:45 18:09	07:10 (B4) 07:24 (B4)	06:22 20:14	05:10 21:16
12	08:44 16:04	07:52 17:10	06:42 18:11	07:08 (B4) 07:26 (B4)	06:20 20:16	05:08 21:18
13	08:43 16:06	07:49 17:12	06:39 18:13	07:06 (B4) 07:26 (B4)	06:17 20:18	05:06 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	07:05 (B4) 07:25 (B4)	06:14 20:20	05:04 21:22
15	08:41 16:10	07:45 17:17	06:34 18:17	07:04 (B4) 07:25 (B4)	06:12 20:22	05:02 21:24
16	08:40 16:12	07:43 17:19	06:32 18:20	07:05 (B4) 07:25 (B4)	06:09 20:24	05:01 21:25
17	08:39 16:14	07:40 17:21	06:29 18:22	07:05 (B4) 07:23 (B4)	06:07 20:26	04:59 21:27
18	08:37 16:16	07:38 17:23	06:26 18:24	07:05 (B4) 07:22 (B4)	06:04 20:28	04:57 21:29
19	08:36 16:18	07:35 17:25	06:23 18:26	07:07 (B4) 07:21 (B4)	06:02 20:30	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	07:09 (B4) 07:18 (B4)	05:59 20:33	04:53 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	07:00 (B1) 07:36 (B1)	04:52 21:35
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	07:01 (B1) 07:35 (B1)	04:50 21:37
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	07:01 (B1) 07:34 (B1)	04:48 21:38
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	07:02 (B1) 07:33 (B1)	04:47 21:40
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	07:03 (B1) 07:32 (B1)	04:45 21:42
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	07:03 (B1) 07:30 (B1)	04:44 21:43
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	07:05 (B1) 07:28 (B1)	04:42 21:45
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	07:07 (B1) 07:26 (B1)	04:41 21:47
29	08:20 16:39		06:57 19:47	05:37 20:51	07:10 (B1) 07:23 (B1)	04:39 21:48
30	08:18 16:41		06:54 19:49	05:35 20:53		04:38 21:50
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			190	800	87	617
Sun reduction			0.41	0.50	0.57	0.56
Oper. time red.			0.98	0.98	0.98	0.98
Wind dir. red.			0.63	0.66	0.67	0.67
Total reduction			0.25	0.32	0.37	0.37
Total, real			48	257	32	225

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December		
1	04:30		05:14 (B17)	05:16			06:17		07:02 (B1)	07:17		07:46 (B4)	07:23		08:24			
	22:09	21	05:35 (B17)	21:28			20:14	36	07:38 (B1)	18:54	19	08:05 (B4)	16:36		15:45			
2	04:31		05:14 (B17)	05:17			06:19		07:03 (B1)	07:19		07:48 (B4)	07:25		08:26			
	22:09	21	05:35 (B17)	21:26			20:11	34	07:37 (B1)	18:51	16	08:04 (B4)	16:34		15:44			
3	04:32		05:14 (B17)	05:19			06:21		07:03 (B1)	07:21		07:50 (B4)	07:27		08:28			
	22:08	21	05:35 (B17)	21:24			20:09	33	07:36 (B1)	18:48	13	08:03 (B4)	16:31		15:43			
4	04:33		05:15 (B17)	05:21			06:23		07:04 (B1)	07:23		07:52 (B4)	07:29		08:29			
	22:07	21	05:36 (B17)	21:22			20:06	30	07:34 (B1)	18:46	9	08:01 (B4)	16:29		15:42			
5	04:33		05:15 (B17)	05:23			06:25		07:04 (B1)	07:25		07:54 (B4)	07:31		08:31			
	22:07	21	05:36 (B17)	21:19			20:03	28	07:32 (B1)	18:43	4	07:58 (B4)	16:27		15:41			
6	04:35		05:15 (B17)	05:25			06:27		07:06 (B1)	07:27			07:33		08:32			
	22:06	21	05:36 (B17)	21:17			20:01	24	07:30 (B1)	18:40			16:25		15:41			
7	04:36		05:15 (B17)	05:27			06:29		07:08 (B1)	07:29			07:36		08:34			
	22:05	21	05:36 (B17)	21:15			19:58	19	07:27 (B1)	18:38			16:23		15:40			
8	04:37		05:16 (B17)	05:29			06:31		07:10 (B1)	07:32			07:38		08:35			
	22:04	20	05:36 (B17)	21:13			19:55	14	07:24 (B1)	18:35			16:21		15:40			
9	04:38		05:16 (B17)	05:31			06:33			07:34			07:40		08:37			
	22:03	20	05:36 (B17)	21:11			19:53			18:32			16:19		15:39			
10	04:39		05:16 (B17)	05:33			06:35			07:36			07:42		08:38			
	22:02	20	05:36 (B17)	21:08			19:50			18:30			16:17		15:39			
11	04:41		05:17 (B17)	05:35			06:37			07:38			07:44		08:39			
	22:01	19	05:36 (B17)	21:06			19:47			18:27			16:15		15:38			
12	04:42		05:19 (B17)	05:37			06:39			07:40			07:46		08:40			
	22:00	18	05:37 (B17)	21:04			19:45			18:25			16:13		15:38			
13	04:43		05:20 (B17)	05:39		07:21 (B1)	06:41			07:42			07:49		08:42			
	21:59	16	05:36 (B17)	21:01	7	07:28 (B1)	19:42			18:22			16:11		15:38			
14	04:45		05:21 (B17)	05:41		07:17 (B1)	06:43			07:44			07:51		08:43			
	21:58	15	05:36 (B17)	20:59	15	07:32 (B1)	19:39			18:19			16:09		15:38			
15	04:46		05:22 (B17)	05:43		07:14 (B1)	06:45			07:46			07:53		08:44			
	21:57	13	05:35 (B17)	20:57	20	07:34 (B1)	19:37			18:17			16:07		15:38			
16	04:48		05:24 (B17)	05:45		07:12 (B1)	06:47			07:48			07:55		08:45			
	21:55	11	05:35 (B17)	20:54	24	07:36 (B1)	19:34			18:14			16:06		15:38			
17	04:49		05:25 (B17)	05:47		07:10 (B1)	06:49			07:50			07:57		08:46			
	21:54	9	05:34 (B17)	20:52	26	07:36 (B1)	19:31			18:12			16:04		15:38			
18	04:51		05:27 (B17)	05:49		07:08 (B1)	06:51			07:52			07:59		08:46			
	21:52	7	05:34 (B17)	20:50	30	07:38 (B1)	19:29			18:09			16:02		15:38			
19	04:52		05:28 (B17)	05:51		07:07 (B1)	06:53			07:55			08:01		08:47			
	21:51	5	05:33 (B17)	20:47	32	07:39 (B1)	19:26			18:07			16:01		15:38			
20	04:54		05:30 (B17)	05:53		07:06 (B1)	06:55			07:57			08:03		08:48			
	21:49	2	05:32 (B17)	20:45	33	07:39 (B1)	19:23			18:04			15:59		15:38			
21	04:56			05:55		07:06 (B1)	06:57			07:59			08:05		08:48			
	21:48			20:42	34	07:40 (B1)	19:20			18:02			15:58		15:39			
22	04:57			05:57		07:05 (B1)	06:59			08:01			08:07		08:49			
	21:46			20:40	36	07:41 (B1)	19:18			17:59			15:56		15:39			
23	04:59			05:59		07:04 (B1)	07:01		07:53 (B4)	08:03			08:09		08:50			
	21:45			20:37	37	07:41 (B1)	19:15	8	08:01 (B4)	17:57			15:55		15:40			
24	05:01			06:01		07:04 (B1)	07:03		07:50 (B4)	08:05			08:11		08:50			
	21:43			20:35	37	07:41 (B1)	19:12	13	08:03 (B4)	17:55			15:53		15:40			
25	05:03			06:03		07:03 (B1)	07:05		07:48 (B4)	07:07			08:13		08:50			
	21:41			20:32	38	07:41 (B1)	19:10	16	08:04 (B4)	16:52			15:52		15:41			
26	05:04			06:05		07:02 (B1)	07:07		07:48 (B4)	07:10			08:15		08:51			
	21:39			20:29	38	07:40 (B1)	19:07	18	08:06 (B4)	16:50			15:51		15:42			
27	05:06			06:07		07:02 (B1)	07:09		07:47 (B4)	07:12			08:17		08:51			
	21:38			20:27	38	07:40 (B1)	19:04	19	08:06 (B4)	16:47			15:49		15:43			
28	05:08			06:09		07:02 (B1)	07:11		07:46 (B4)	07:14			08:19		08:51			
	21:36			20:24	38	07:40 (B1)	19:02	20	08:06 (B4)	16:45			15:48		15:44			
29	05:10			06:11		07:02 (B1)	07:13		07:46 (B4)	07:16			08:21		08:51			
	21:34			20:22	38	07:40 (B1)	18:59	20	08:06 (B4)	16:43			15:47		15:44			
30	05:12			06:13		07:02 (B1)	07:15		07:45 (B4)	07:18			08:22		08:51			
	21:32			20:19	37	07:39 (B1)	18:56	21	08:06 (B4)	16:40			15:46		15:45			
31	05:14			06:15		07:02 (B1)				07:20					08:51			
	21:30			20:17	36	07:38 (B1)				16:38					15:47			
Potential sun hours	529			469			385			324			247		216			
Total, worst case		322			594			353			61							
Sun reduction		0.49			0.50			0.43			0.26							
Oper. time red.		0.98			0.98			0.98			0.98							
Wind dir. red.		0.67			0.66			0.65			0.63							
Total reduction		0.32			0.32			0.27			0.16							
Total, real		104			190			95			10							

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:36 21:53
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	40 07:18 (B1) 20:57	04:35 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	38 07:17 (B1) 21:00	04:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	38 07:17 (B1) 21:02	04:33 21:57
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	36 07:16 (B1) 21:04	4 05:11 (B17) 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	34 07:15 (B1) 21:06	6 05:13 (B17) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	33 07:14 (B1) 21:08	7 05:15 (B17) 22:00
8	08:48 15:58	08:00 17:01	06:53 18:03	06:30 20:08	31 07:13 (B1) 21:10	8 05:16 (B17) 22:01
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	29 07:12 (B1) 21:12	10 05:17 (B17) 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	26 07:10 (B1) 21:14	11 05:18 (B17) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	24 07:09 (B1) 21:16	12 05:19 (B17) 22:04
12	08:44 16:04	07:52 17:10	06:42 18:11	06:20 20:16	20 07:07 (B1) 21:18	13 05:20 (B17) 22:05
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	15 07:05 (B1) 21:20	14 05:21 (B17) 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	8 07:04 (B1) 21:22	15 05:22 (B17) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	25 07:03 (B1) 21:24	16 05:23 (B17) 22:08
16	08:40 16:12	07:43 17:19	06:31 18:20	06:09 20:24	29 07:02 (B1) 21:25	17 05:24 (B17) 22:09
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	31 07:01 (B1) 21:27	18 05:25 (B17) 22:10
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	34 07:00 (B1) 21:29	19 05:26 (B17) 22:11
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	36 06:59 (B1) 21:31	20 05:27 (B17) 22:12
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	37 06:58 (B1) 21:33	21 05:28 (B17) 22:13
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	38 06:57 (B1) 21:35	22 05:29 (B17) 22:14
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	39 06:56 (B1) 21:36	23 05:30 (B17) 22:15
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	41 06:55 (B1) 21:38	24 05:31 (B17) 22:16
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	41 06:54 (B1) 21:40	25 05:32 (B17) 22:17
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	41 06:53 (B1) 21:42	26 05:33 (B17) 22:18
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	42 06:52 (B1) 21:43	27 05:34 (B17) 22:19
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	42 06:51 (B1) 21:45	28 05:35 (B17) 22:20
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	42 06:50 (B1) 21:47	29 05:36 (B17) 22:21
29	08:20 16:39		06:57 19:47	05:37 20:51	41 06:49 (B1) 21:48	30 05:37 (B17) 22:22
30	08:18 16:41		06:54 19:49	05:35 20:53	40 06:48 (B1) 21:50	31 05:38 (B17) 22:23
31	08:17 16:43		06:51 19:51			
Potential sun hours	235	266	366	426	508	529
Total, worst case			214	635	411	361
Sun reduction			0.41	0.50	0.57	0.56
Oper. time red.			0.98	0.98	0.98	0.98
Wind dir. red.			0.63	0.66	0.66	0.67
Total reduction			0.25	0.32	0.36	0.36
Total, real			55	204	150	131

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July		August		September		October		November		December	
1	04:30	05:07 (B17)	05:16	06:57 (B1)	06:17	07:17	07:46 (B4)	07:23	08:24			
	22:09	13	05:20 (B17)	21:28	21	07:18 (B1)	18:54	9	07:55 (B4)	16:36	15:45	
2	04:31	05:08 (B17)	05:17	06:55 (B1)	06:19	07:19	07:48 (B4)	07:25	08:26			
	22:09	12	05:20 (B17)	21:26	24	07:19 (B1)	18:51	3	07:51 (B4)	16:34	15:44	
3	04:32	05:09 (B17)	05:19	06:54 (B1)	06:21	07:21	07:21	07:27	08:28			
	22:08	11	05:20 (B17)	21:24	27	07:21 (B1)	18:48		16:31	15:43		
4	04:33	05:10 (B17)	05:21	06:53 (B1)	06:23	07:23	07:23	07:29	08:29			
	22:07	10	05:20 (B17)	21:22	29	07:22 (B1)	18:46		16:29	15:42		
5	04:33	05:11 (B17)	05:23	06:51 (B1)	06:25	07:25	07:25	07:31	08:31			
	22:07	9	05:20 (B17)	21:19	32	07:23 (B1)	18:43		16:27	15:41		
6	04:35	05:12 (B17)	05:25	06:50 (B1)	06:27	07:27	07:27	07:33	08:32			
	22:06	8	05:20 (B17)	21:17	34	07:24 (B1)	18:40		16:25	15:41		
7	04:36	05:13 (B17)	05:27	06:50 (B1)	06:29	07:29	07:29	07:36	08:34			
	22:05	6	05:19 (B17)	21:15	35	07:25 (B1)	18:38		16:23	15:40		
8	04:37	05:14 (B17)	05:29	06:49 (B1)	06:31	07:32	07:32	07:38	08:35			
	22:04	5	05:19 (B17)	21:13	36	07:25 (B1)	18:35		16:21	15:40		
9	04:38	05:15 (B17)	05:31	06:49 (B1)	06:33	07:34	07:34	07:40	08:37			
	22:03	3	05:18 (B17)	21:11	37	07:26 (B1)	18:32		16:19	15:39		
10	04:39	05:16 (B17)	05:33	06:47 (B1)	06:35	07:36	07:36	07:42	08:38			
	22:02	1	05:17 (B17)	21:08	39	07:26 (B1)	18:30		16:17	15:39		
11	04:41	05:35	06:47 (B1)	06:37	07:38	07:38	07:38	07:44	08:39			
	22:01		21:06	39	07:26 (B1)	19:47	18:27		16:15	15:38		
12	04:42	05:37	06:46 (B1)	06:39	07:40	07:40	07:40	07:46	08:40			
	22:00		21:04	41	07:27 (B1)	19:45	18:25		16:13	15:38		
13	04:43	05:39	06:46 (B1)	06:41	07:42	07:42	07:42	07:49	08:42			
	21:59		21:01	41	07:27 (B1)	19:42	18:22		16:11	15:38		
14	04:45	05:41	06:46 (B1)	06:43	07:44	07:44	07:44	07:51	08:43			
	21:58		20:59	41	07:27 (B1)	19:39	18:19		16:09	15:38		
15	04:46	05:43	06:46 (B1)	06:45	07:46	07:46	07:46	07:53	08:44			
	21:57		20:57	41	07:27 (B1)	19:37	18:17		16:07	15:38		
16	04:48	05:45	06:46 (B1)	06:47	07:48	07:48	07:48	07:55	08:45			
	21:55		20:54	41	07:27 (B1)	19:34	18:14		16:06	15:38		
17	04:49	05:47	06:45 (B1)	06:49	07:50	07:50	07:50	07:57	08:46			
	21:54		20:52	41	07:26 (B1)	19:31	18:12		16:04	15:38	4	13:03 (B22)
18	04:51	05:49	06:45 (B1)	06:51	07:52	07:52	07:52	07:59	08:46			
	21:52		20:50	41	07:26 (B1)	19:29	18:09		16:02	15:38	5	13:08 (B22)
19	04:52	05:51	06:45 (B1)	06:53	07:55	07:55	07:55	08:01	08:47			
	21:51		20:47	41	07:26 (B1)	19:26	7 07:56 (B4)	18:07	16:01	15:38	6	13:08 (B22)
20	04:54	05:53	06:45 (B1)	06:55	07:57	07:57	07:57	08:03	08:48			
	21:49		20:45	40	07:25 (B1)	19:23	12 07:58 (B4)	18:04	15:59	15:38	7	13:09 (B22)
21	04:56	05:55	06:45 (B1)	06:57	07:59	07:59	07:59	08:05	08:48			
	21:48		20:42	40	07:25 (B1)	19:20	16 07:44 (B4)	18:02	15:58	15:39	7	13:10 (B22)
22	04:57	05:57	06:46 (B1)	06:59	08:01	08:01	08:01	08:07	08:49			
	21:46		20:40	38	07:24 (B1)	19:18	19 08:00 (B4)	17:59	15:56	15:39	7	13:10 (B22)
23	04:59	05:59	06:46 (B1)	07:01	08:03	08:03	08:03	08:09	08:50			
	21:45		20:37	37	07:23 (B1)	19:15	20 08:00 (B4)	17:57	15:55	15:40	7	13:11 (B22)
24	05:01	06:01	06:47 (B1)	07:03	08:05	08:05	08:05	08:11	08:50			
	21:43		20:35	35	07:22 (B1)	19:12	21 08:00 (B4)	17:55	15:53	15:40	7	13:11 (B22)
25	05:03	06:03	06:48 (B1)	07:05	08:07	08:07	08:07	08:13	08:50			
	21:41		20:32	33	07:21 (B1)	19:10	21 08:00 (B4)	16:52	15:52	15:41	6	13:11 (B22)
26	05:04	06:05	06:48 (B1)	07:07	08:09	08:09	08:09	08:15	08:51			
	21:39		20:29	31	07:19 (B1)	19:07	22 08:00 (B4)	16:50	15:51	15:42	5	13:11 (B22)
27	05:06	06:07	06:49 (B1)	07:09	08:11	08:11	08:11	08:17	08:51			
	21:38		20:27	28	07:17 (B1)	19:04	21 08:00 (B4)	16:47	15:49	15:43	1	13:09 (B22)
28	05:08	06:09	06:50 (B1)	07:11	08:13	08:13	08:13	08:19	08:51			
	21:36		20:24	25	07:15 (B1)	19:02	19 07:59 (B4)	16:45	15:48	15:44		
29	05:10	06:11	06:52 (B1)	07:13	08:15	08:15	08:15	08:21	08:51			
	21:34		20:22	21	07:13 (B1)	18:59	16 07:58 (B4)	16:43	15:47	15:44		
30	05:12	07:02 (B1)	06:13	06:55 (B1)	07:15	07:15	07:15	08:22	08:51			
	21:32	11	07:13 (B1)	20:19	15	07:10 (B1)	18:56	13 07:57 (B4)	16:40	15:45		
31	05:14	06:59 (B1)	06:15					07:20	08:51			
	21:30	17	07:16 (B1)	20:17				16:38	15:47			
Potential sun hours	529		469		385		324		247		216	
Total, worst case	106		1024		207		12				62	
Sun reduction	0.49		0.50		0.43		0.26				0.07	
Oper. time red.	0.98		0.98		0.98		0.98				0.98	
Wind dir. red.	0.66		0.66		0.63		0.63				0.64	
Total reduction	0.32		0.32		0.26		0.16				0.04	
Total, real	34		327		55		2				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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:32 20:55	20:01 (B25) 21:52	04:36 22:09	04:30 21:28	05:16 21:08	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	20:01 (B25) 21:54	04:35 22:08	04:31 21:25	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	20:01 (B25) 21:55	04:34 22:08	04:32 21:23	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	20:02 (B25) 21:56	04:33 22:07	04:33 21:21	05:21 20:25 (B25)	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	20:02 (B25) 21:57	04:32 22:06	05:23 21:19	05:23 20:26 (B25)	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	20:03 (B25) 21:59	04:31 22:06	04:35 21:17	05:25 20:27 (B25)	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	20:04 (B25) 22:00	04:30 22:05	04:36 21:15	05:27 20:28 (B25)	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	20:05 (B25) 22:01	04:29 22:04	05:29 21:13	05:29 20:29 (B25)	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	20:07 (B25) 22:02	04:28 22:03	05:31 21:10	05:31 20:30 (B25)	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	20:14 (B25) 22:02	04:28 22:03	05:33 21:08	05:33 20:29 (B25)	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	05:35 20:29 (B25)	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	05:37 20:29 (B25)	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	05:39 20:29 (B25)	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	05:41 20:10 (B25)	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	05:43 20:25 (B25)	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	05:45 20:23 (B25)	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	05:47 20:19 (B25)	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	05:49 20:12 (B25)	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	05:51 20:14 (B25)	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	05:53 20:15 (B25)	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	05:55 20:20 (B25)	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	05:57 20:18 (B25)	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	05:59 20:15 (B25)	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	20:08 (B25) 21:40	04:26 22:10	05:01 21:43	06:01 20:34	06:01 20:12 (B25)	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	20:06 (B25) 21:41	04:26 22:10	05:03 21:41	06:03 20:32	06:03 20:11 (B25)	07:05 19:09	08:07 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	20:04 (B25) 21:43	04:27 22:10	05:04 21:39	06:05 20:29	06:05 20:10 (B25)	07:07 19:07	08:09 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	20:03 (B25) 21:45	04:27 22:10	05:06 21:37	06:07 20:27	06:07 20:19 (B25)	07:09 19:04	08:11 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	20:02 (B25) 21:46	04:28 22:10	05:08 21:35	06:09 20:24	06:09 20:18 (B25)	07:11 19:01	08:14 16:45	08:18 15:48	08:51 15:44
29	08:20 16:39	07:11 17:47	06:57 18:47	05:37 20:51	20:01 (B25) 21:48	04:29 22:09	05:10 21:33	06:11 20:22	06:11 20:22 (B25)	07:13 18:59	08:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41	07:09 17:49	06:54 18:49	05:35 20:53	20:01 (B25) 21:49	04:29 22:09	05:12 21:31	06:13 20:19	06:13 20:19 (B25)	07:15 18:56	08:18 16:40	08:22 15:46	08:51 15:46
31	08:16 16:43	07:07 17:51	06:51 18:51	05:37 20:51	20:01 (B25) 21:51	04:37 22:10	05:14 21:30	06:15 20:16	06:15 20:16 (B25)	07:20 16:38	08:20 16:38	08:25 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216	
Total, worst case				83	144			224					
Sun reduction				0.50	0.57			0.50					
Oper. time red.				0.98	0.98			0.98					
Wind dir. red.				0.62	0.62			0.62					
Total reduction				0.31	0.35			0.30					
Total, real				25	50			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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	06:01 (B22) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	06:01 (B22) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	06:01 (B22) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:02 (B22) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	06:03 (B22) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:04 (B22) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:06 (B22) 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:15 (B22) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:15 (B22) 22:02
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	06:15 (B22) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:15 (B22) 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:15 (B22) 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:15 (B22) 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:15 (B22) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:15 (B22) 22:08
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:15 (B22) 22:09
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:15 (B22) 22:10
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:15 (B22) 22:11
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	06:15 (B22) 22:12
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	06:15 (B22) 22:13
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:15 (B22) 22:14
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	06:15 (B22) 22:15
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	06:15 (B22) 22:16
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:15 (B22) 22:17
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	06:15 (B22) 22:18
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	06:15 (B22) 22:19
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	06:15 (B22) 22:20
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	06:15 (B22) 22:21
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	06:15 (B22) 22:22
30	08:19 16:41	07:09 17:49	05:54 18:49	05:35 20:53	04:38 21:50	06:15 (B22) 22:23
31	08:17 16:43	07:07 17:51	05:52 18:51	05:33 20:55	04:37 21:51	06:15 (B22) 22:24
Potential sun hours	235	266	366	426	508	528
Total, worst case			440	79	111	
Sun reduction			0.41	0.50	0.57	
Oper. time red.			0.98	0.98	0.98	
Wind dir. red.			0.63	0.66	0.66	
Total reduction			0.25	0.32	0.37	
Total, real			112	26	41	

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	07:46 (B14)	07:23
	22:09	21:28	20:14	18:54	12 07:58 (B14)	16:36
2	04:31	05:18	06:19	07:19	07:48 (B14)	07:25
	22:09	21:26	20:11	18:51	5 07:53 (B14)	16:34
3	04:32	05:20	06:21	07:21		07:27
	22:08	21:24	20:09	18:48		16:32
4	04:33	05:22	06:23	07:23		07:29
	22:07	21:22	20:06	18:46		16:30
5	04:34	05:24	06:18 (B22)	07:25		16:31
	22:07	21:20	5 06:23 (B22)	18:43		16:27
6	04:35	05:25	06:14 (B22)	07:28		16:33
	22:06	21:17	11 06:25 (B22)	18:40		16:25
7	04:36	05:27	06:13 (B22)	07:30		16:36
	22:05	21:15	14 06:27 (B22)	18:38		16:23
8	04:37	05:29	06:12 (B22)	07:32		16:38
	22:04	21:13	16 06:28 (B22)	18:35		16:21
9	04:38	05:31	06:11 (B22)	07:34		16:40
	22:03	21:11	18 06:29 (B22)	18:33		16:19
10	04:40	05:33	06:11 (B22)	07:36		16:42
	22:02	21:08	18 06:29 (B22)	18:30		16:17
11	04:41	05:35	06:10 (B22)	07:38		16:44
	22:01	21:06	20 06:30 (B22)	18:27		16:15
12	04:42	05:37	06:09 (B22)	07:40		16:46
	22:00	21:04	20 06:29 (B22)	18:25		16:13
13	04:44	05:39	06:11 (B22)	07:42		16:48
	21:59	21:02	18 06:29 (B22)	3 07:58 (B14)		16:11
14	04:45	05:41	06:13 (B22)	07:49		16:51
	21:58	20:59	16 06:29 (B22)	14 08:03 (B14)		16:10
15	04:46	05:43	06:15 (B22)	07:47		16:53
	21:57	20:57	14 06:29 (B22)	18 08:05 (B14)		16:08
16	04:48	05:45	06:17 (B22)	07:45		16:55
	21:55	20:54	11 06:28 (B22)	21 08:06 (B14)		16:06
17	04:49	05:47	06:19 (B22)	07:43		16:57
	21:54	20:52	8 06:27 (B22)	24 08:07 (B14)		16:04
18	04:51	05:49	06:21 (B22)	07:42		16:59
	21:52	20:50	5 06:26 (B22)	26 08:08 (B14)		16:03
19	04:53	05:51	06:22 (B22)	07:41		16:55
	21:51	20:47	2 06:24 (B22)	27 08:08 (B14)		16:01
20	04:54	05:53	06:55	07:40 (B14)		16:57
	21:49	20:45	19:23	29 08:09 (B14)		15:59
21	04:56	05:55	06:57	07:39 (B14)		16:59
	21:48	20:42	19:21	30 08:09 (B14)		15:58
22	04:58	05:57	06:59	07:39 (B14)		16:57
	21:46	20:40	19:18	30 08:09 (B14)		15:56
23	04:59	05:59	07:01	07:38 (B14)		16:58
	21:45	20:37	19:15	30 08:08 (B14)		15:55
24	05:01	06:01	07:03	07:38 (B14)		16:59
	21:43	20:35	19:12	30 08:08 (B14)		15:53
25	05:03	06:03	07:05	07:38 (B14)		16:57
	21:41	20:32	19:10	29 08:07 (B14)		15:52
26	05:05	06:05	07:07	07:38 (B14)		16:59
	21:39	20:30	19:07	28 08:06 (B14)		15:51
27	05:06	06:07	07:09	07:38 (B14)		16:57
	21:38	20:27	19:04	27 08:05 (B14)		15:50
28	05:08	06:09	07:11	07:40 (B14)		16:59
	21:36	20:24	19:02	24 08:04 (B14)		15:48
29	05:10	06:11	07:13	07:42 (B14)		16:57
	21:34	20:22	18:59	20 08:02 (B14)		15:47
30	05:12	06:13	07:15	07:44 (B14)		16:59
	21:32	20:19	18:56	16 08:00 (B14)		15:46
31	05:14	06:15		07:20		16:59
	21:30	20:17		16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		196	426	17		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.66	0.63	0.63		
Total reduction		0.32	0.26	0.16		
Total, real		63	113	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

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SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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
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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 17:47	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
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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 20:49	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	07:14 (B14) 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	07:06 (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	07:04 (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	07:04 (B14) 21:06	05:21 21:59	04:31 22:06	04:35 21:17	05:26 20:01	07:00 (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	07:03 (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	07:05 (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	07:07 (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	07:09 (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	07:15 (B14) 21:20	05:07 22:06	04:27 21:59	05:39 21:02	06:41 19:42	07:15 (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	07:15 (B14) 21:22	05:05 22:07	04:26 21:58	05:41 20:59	06:43 19:39	07:12 (B14) 18:20	07:44 16:10	07:51 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	07:15 (B14) 21:24	05:03 22:07	04:26 21:57	05:43 20:57	06:45 19:37	07:15 (B14) 18:17	07:46 16:08	07:53 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	07:15 (B14) 21:26	05:01 22:08	04:26 21:55	05:45 20:54	06:47 19:34	07:15 (B14) 18:15	07:48 16:06	07:55 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	07:15 (B14) 21:27	04:59 22:08	04:26 21:54	05:47 20:52	06:49 19:31	07:15 (B14) 18:12	07:50 16:04	07:57 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	07:15 (B14) 21:29	04:57 22:09	04:25 21:52	05:49 20:50	06:51 19:29	07:15 (B14) 18:10	07:53 16:03	07:59 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	07:15 (B14) 21:31	04:55 22:09	04:25 21:51	05:51 20:47	06:53 19:26	07:15 (B14) 18:07	07:55 16:01	08:01 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	07:15 (B14) 21:33	04:54 22:10	04:25 21:49	05:53 20:45	06:55 19:23	07:15 (B14) 18:05	07:57 15:59	08:03 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	07:15 (B14) 21:35	04:52 22:10	04:26 21:48	05:55 20:42	06:57 19:21	07:15 (B14) 18:02	07:59 15:58	08:05 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	07:15 (B14) 21:37	04:50 22:10	04:26 21:46	05:57 20:40	06:59 19:18	07:15 (B14) 18:00	08:01 15:56	08:07 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	07:15 (B14) 21:39	04:49 22:10	04:26 21:45	05:59 20:37	07:01 19:15	07:15 (B14) 18:03	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	07:15 (B14) 21:40	04:47 22:10	04:26 21:43	06:01 20:35	07:03 19:13	07:15 (B14) 18:05	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	07:15 (B14) 21:42	04:45 22:10	04:27 21:41	06:03 20:32	07:05 19:10	07:15 (B14) 18:07	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	07:15 (B14) 21:43	04:44 22:10	04:27 21:39	06:05 20:30	07:07 19:07	07:15 (B14) 18:07	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	07:15 (B14) 21:44	04:42 22:10	04:28 21:38	06:07 20:27	07:09 19:04	07:15 (B14) 18:06	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	07:15 (B14) 21:47	04:41 22:10	04:28 21:36	06:09 20:24	07:11 19:02	07:15 (B14) 18:07	08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	07:15 (B14) 21:48	04:40 22:10	04:29 21:34	06:11 20:22	07:13 18:59	07:15 (B14) 18:07	08:21 15:47	08:51 15:45
30	08:19 16:41	07:04 17:54	05:54 18:54	05:35 20:53	07:15 (B14) 21:50	04:38 22:09	04:29 21:32	06:13 20:19	07:15 18:56	07:15 (B14) 18:07	08:22 15:46	08:51 15:46
31	08:17 16:43	07:02 17:51	05:52 18:51	05:33 20:51	07:15 (B14) 21:51	04:37 22:10	04:29 21:30	06:15 20:17	07:15 18:56	07:15 (B14) 18:07	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case												
Sun reduction			0.41	0.50				0.50	0.43			
Oper. time red.			0.98	0.98				0.98	0.98			
Wind dir. red.			0.66	0.66				0.66	0.66			
Total reduction			0.26	0.32				0.32	0.28			
Total, real			2	62				2	54			

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
1	08:51		09:30 (B4)	08:15			07:11		07:55 (B2)	06:49			05:32		06:30 (B17)	04:36		
	15:48	46	11:21 (B1)	16:45			17:47	23	08:18 (B2)	19:53			20:55	42	07:12 (B17)	21:53		
2	08:50		09:30 (B4)	08:13			07:08		07:56 (B2)	06:46			05:30		06:30 (B17)	04:34		
	15:49	47	11:22 (B1)	16:47			17:50	20	08:16 (B2)	19:55			20:57	42	07:12 (B17)	21:54		
3	08:50		09:29 (B4)	08:11			07:06		07:57 (B2)	06:43			05:28		06:30 (B17)	04:33		
	15:50	49	11:22 (B1)	16:49			17:52	19	08:16 (B2)	19:57			21:00	42	07:12 (B17)	21:55		
4	08:50		09:28 (B4)	08:09			07:03		07:58 (B2)	06:41			05:25		06:31 (B17)	04:32		
	15:52	50	11:22 (B1)	16:52			17:54	15	08:13 (B2)	19:59			21:02	40	07:11 (B17)	21:57		
5	08:49		09:28 (B4)	08:07			07:00		08:01 (B2)	06:38			05:23		06:31 (B17)	04:31		
	15:53	51	11:23 (B1)	16:54			17:56	9	08:10 (B2)	20:01			21:04	40	07:11 (B17)	21:58		
6	08:49		09:27 (B4)	08:05			06:58			06:35			05:21		06:31 (B17)	04:31		
	15:55	53	11:23 (B1)	16:56			17:58			20:03			21:06	39	07:10 (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	11:24 (B1)	16:58			18:00			20:05			21:08	38	07:10 (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	11:24 (B1)	17:01			18:03			20:07			21:10	37	07:09 (B17)	22:01		
9	08:47		09:24 (B4)	07:58			06:50			06:27			05:15		06:33 (B17)	04:28		
	15:59	58	11:24 (B1)	17:03			18:05			20:10			21:12	35	07:08 (B17)	22:02		
10	08:46		09:23 (B4)	07:56			06:47			06:25			05:12		06:33 (B17)	04:28		
	16:01	60	11:25 (B1)	17:05			18:07			20:12			21:14	34	07:07 (B17)	22:03		
11	08:45		09:22 (B4)	07:54			06:45			06:22			05:10		06:34 (B17)	04:27		
	16:03	62	11:25 (B1)	17:07			18:09			20:14			21:16	32	07:06 (B17)	22:04		
12	08:44		09:21 (B4)	07:52			06:42			06:20			05:08		06:35 (B17)	04:27		
	16:04	64	11:26 (B1)	17:10			18:11			20:16			21:18	30	07:05 (B17)	22:05		
13	08:43		09:19 (B4)	07:49			06:39			06:17			05:06		06:36 (B17)	04:26		
	16:06	65	11:25 (B1)	17:12			18:13			20:18			21:20	27	07:03 (B17)	22:06		
14	08:42		09:19 (B4)	07:47			06:37			06:14		06:52 (B17)	05:04		06:38 (B17)	04:26		
	16:08	66	11:26 (B1)	17:14			18:15		5	06:57 (B17)	21:22		25	07:03 (B17)	22:07			
15	08:41		09:20 (B4)	07:45			06:34			06:12			05:02		06:39 (B17)	04:25		
	16:10	65	11:26 (B1)	17:16			18:17			20:22	16	07:03 (B17)	21:24	22	07:01 (B17)	22:07		
16	08:40		09:20 (B4)	07:43			06:31			06:09			05:00		06:41 (B17)	04:25		
	16:12	65	11:26 (B1)	17:19			18:20			20:24	22	07:05 (B17)	21:25	18	06:59 (B17)	22:08		
17	08:39		09:20 (B4)	07:40		08:08 (B2)	06:29			06:07			04:59		06:43 (B17)	04:25		
	16:14	65	11:26 (B1)	17:21	4	08:12 (B2)	18:22			20:26	26	07:07 (B17)	21:27	13	06:56 (B17)	22:09		
18	08:37		09:20 (B4)	07:38		08:05 (B2)	06:26			06:04			04:57		06:47 (B17)	04:25		
	16:15	65	11:26 (B1)	17:23	9	08:14 (B2)	18:24			20:28	29	07:08 (B17)	21:29	5	06:52 (B17)	22:09		
19	08:36		09:20 (B4)	07:35		08:03 (B2)	06:23			06:02			04:55			04:25		
	16:17	63	11:25 (B1)	17:25	14	08:17 (B2)	18:26			20:30	32	07:10 (B17)	21:31			22:09		
20	08:35		09:21 (B4)	07:33		08:00 (B2)	06:21			05:59			04:53			04:25		
	16:19	62	11:26 (B1)	17:28	17	08:17 (B2)	18:28			20:32	34	07:10 (B17)	21:33			22:10		
21	08:33		09:22 (B4)	07:31		07:58 (B2)	06:18			05:57			04:51			04:25		
	16:21	59	11:25 (B1)	17:30	21	08:19 (B2)	18:30			20:35	36	07:11 (B17)	21:35			22:10		
22	08:32		09:22 (B4)	07:28		07:55 (B2)	06:15			05:54			04:50			04:25		
	16:24	57	11:24 (B1)	17:32	24	08:19 (B2)	18:32			20:37	38	07:12 (B17)	21:37			22:10		
23	08:30		09:23 (B4)	07:26		07:55 (B2)	06:13			05:52			04:48			04:25		
	16:26	56	11:24 (B1)	17:34	25	08:20 (B2)	18:34			20:39	39	07:12 (B17)	21:38			22:10		
24	08:29		09:24 (B4)	07:23		07:55 (B2)	06:10			05:49			04:47			04:26		
	16:28	53	11:24 (B1)	17:36	25	08:20 (B2)	18:36			20:41	41	07:13 (B17)	21:40			22:10		
25	08:27		09:25 (B4)	07:21		07:54 (B2)	06:07			05:47			04:45			04:26		
	16:30	49	11:23 (B1)	17:39	25	08:19 (B2)	18:38			20:43	41	07:13 (B17)	21:42			22:10		
26	08:26		09:26 (B4)	07:18		07:54 (B2)	06:05			05:44			04:44			04:27		
	16:32	45	11:22 (B1)	17:41	26	08:20 (B2)	18:40			20:45	42	07:13 (B17)	21:43			22:10		
27	08:24		09:27 (B4)	07:16		07:54 (B2)	06:02			05:42			04:42			04:27		
	16:34	39	11:20 (B1)	17:43	25	08:19 (B2)	18:43			20:47	42	07:13 (B17)	21:45			22:10		
28	08:22		09:29 (B4)	07:13		07:55 (B2)	05:59			05:39			04:41			04:28		
	16:36	33	11:19 (B1)	17:45	24	08:19 (B2)	18:45			20:49	42	07:13 (B17)	21:47			22:10		
29	08:20		09:32 (B4)				06:57			05:37			04:39			04:28		
	16:38	21	11:16 (B1)				19:47			20:51	42	07:12 (B17)	21:48			22:10		
30	08:18		11:06 (B1)				06:54			05:35			04:38			04:29		
	16:41	5	11:11 (B1)				19:49			20:53	42	07:12 (B17)	21:50			22:09		
31	08:17						06:51						04:37					
	16:43						19:51						21:51					
Potential sun hours	235			266			366			426			508			529		
Total, worst case		1586			239			86			569			561				
Sun reduction		0.13			0.20			0.41			0.50			0.57				
Oper. time red.		0.98			0.98			0.98			0.98			0.98				
Wind dir. red.		0.60			0.63			0.63			0.65			0.65				
Total reduction		0.08			0.12			0.24			0.31			0.35				
Total, real		121			29			21			177			198				

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

July		August		September		October		November		December	
1	04:30	05:15	06:45 (B17)	06:17	07:17			07:23		08:24	09:04 (B4)
	22:09	21:28	30	07:15 (B17)	20:14	18:53		16:36		15:45	62
2	04:31	05:17		06:44 (B17)	06:19	07:19		07:25		08:26	09:06 (B4)
	22:09	21:26	33	07:17 (B17)	20:11	18:51		16:34		15:44	60
3	04:31	05:19		06:44 (B17)	06:21	07:21		07:27		08:28	09:08 (B4)
	22:08	21:24	34	07:18 (B17)	20:09	18:48		16:31		15:43	59
4	04:32	05:21		06:43 (B17)	06:23	07:23		07:29		08:29	09:09 (B4)
	22:07	21:22	36	07:19 (B17)	20:06	18:46		16:29		15:42	57
5	04:33	05:23		06:41 (B17)	06:25	07:25		07:31		08:31	09:11 (B4)
	22:07	21:19	37	07:18 (B17)	20:03	18:43		16:27		15:41	56
6	04:34	05:25		06:41 (B17)	06:27	07:27		07:33		08:32	09:13 (B4)
	22:06	21:17	38	07:19 (B17)	20:01	18:40		16:25		15:41	53
7	04:36	05:27		06:41 (B17)	06:29	07:29		07:36		08:34	09:14 (B4)
	22:05	21:15	39	07:20 (B17)	19:58	18:38		16:23		15:40	51
8	04:37	05:29		06:40 (B17)	06:31	07:31		07:38		08:35	09:16 (B4)
	22:04	21:13	40	07:20 (B17)	19:55	18:35		16:21		15:40	51
9	04:38	05:31		06:40 (B17)	06:33	07:34		07:40		08:37	09:18 (B4)
	22:03	21:11	41	07:21 (B17)	19:53	18:32	12	08:46 (B2)	16:19	15:39	49
10	04:39	05:33		06:39 (B17)	06:35	07:36		08:32 (B2)	07:42	08:38	09:19 (B4)
	22:02	21:08	41	07:20 (B17)	19:50	18:30	17	08:49 (B2)	16:17	15:39	47
11	04:40	05:35		06:38 (B17)	06:37	07:38		08:31 (B2)	07:44	08:39	09:20 (B4)
	22:01	21:06	42	07:20 (B17)	19:47	18:27	19	08:50 (B2)	16:15	15:38	46
12	04:42	05:37		06:38 (B17)	06:39	07:40		08:29 (B2)	07:46	08:40	10:28 (B1)
	22:00	21:04	43	07:21 (B17)	19:45	18:25	22	08:51 (B2)	16:13	15:38	44
13	04:43	05:39		06:38 (B17)	06:41	07:42		08:28 (B2)	07:49	09:04 (B4)	10:28 (B1)
	21:59	21:01	43	07:21 (B17)	19:42	18:22	23	08:51 (B2)	16:11	15:38	44
14	04:45	05:41		06:38 (B17)	06:43	07:44		08:27 (B2)	07:51	09:01 (B4)	10:28 (B1)
	21:58	20:59	43	07:21 (B17)	19:39	18:19	24	08:51 (B2)	16:09	15:38	45
15	04:46	05:43		06:38 (B17)	06:45	07:46		08:27 (B2)	07:53	08:59 (B4)	10:29 (B1)
	21:57	20:57	43	07:21 (B17)	19:37	18:17	25	08:52 (B2)	16:07	15:38	44
16	04:48	05:45		06:38 (B17)	06:47	07:48		08:26 (B2)	07:55	08:59 (B4)	10:29 (B1)
	21:55	20:54	42	07:20 (B17)	19:34	18:14	26	08:52 (B2)	16:06	15:38	44
17	04:49	05:47		06:38 (B17)	06:49	07:50		08:26 (B2)	07:57	08:58 (B4)	10:30 (B1)
	21:54	20:52	41	07:19 (B17)	19:31	18:12	25	08:51 (B2)	16:04	15:38	44
18	04:51	05:49		06:38 (B17)	06:51	07:52		08:26 (B2)	07:59	08:58 (B4)	10:30 (B1)
	21:52	20:49	41	07:19 (B17)	19:28	18:09	25	08:51 (B2)	16:02	15:38	45
19	04:52	05:51		06:38 (B17)	06:53	07:54		08:27 (B2)	08:01	08:58 (B4)	10:31 (B1)
	21:51	20:47	40	07:18 (B17)	19:26	18:07	24	08:51 (B2)	16:01	15:38	44
20	04:54	05:53		06:39 (B17)	06:55	07:57		08:27 (B2)	08:03	08:57 (B4)	10:31 (B1)
	21:49	20:45	38	07:17 (B17)	19:23	18:04	23	08:50 (B2)	15:59	15:38	44
21	04:56	05:55		06:39 (B17)	06:57	07:59		08:29 (B2)	08:05	08:57 (B4)	10:32 (B1)
	21:48	20:42	38	07:17 (B17)	19:20	18:02	20	08:49 (B2)	15:57	15:39	44
22	04:57	05:57		06:40 (B17)	06:59	08:01		08:31 (B2)	08:07	08:58 (B4)	10:32 (B1)
	21:46	20:40	36	07:16 (B17)	19:18	17:59	16	08:47 (B2)	15:56	15:39	44
23	04:59	05:59		06:41 (B17)	07:01	08:03		08:34 (B2)	08:09	08:57 (B4)	10:33 (B1)
	21:45	20:37	34	07:15 (B17)	19:15	17:57	12	08:46 (B2)	15:54	15:40	44
24	05:01	06:01		06:42 (B17)	07:03	08:05		08:36 (B2)	08:11	08:57 (B4)	10:33 (B1)
	21:43	20:35	31	07:13 (B17)	19:12	17:54	8	08:44 (B2)	15:53	15:40	44
25	05:02	06:03		06:42 (B17)	07:05	07:07		07:38 (B2)	08:13	08:58 (B4)	10:33 (B1)
	21:41	20:32	29	07:11 (B17)	19:10	16:52	2	07:40 (B2)	15:52	15:41	44
26	05:04	06:05		06:43 (B17)	07:07	07:09		08:15		08:59 (B4)	10:33 (B1)
	21:39	10	07:05 (B17)	20:29	26	07:09 (B17)	19:07	16:50	15:50	15:42	45
27	05:06	06:53 (B17)	06:07	06:45 (B17)	07:09	07:12		08:17	08:17	08:59 (B4)	10:34 (B1)
	21:38	15	07:08 (B17)	20:27	22	07:07 (B17)	19:04	16:47	15:49	15:43	44
28	05:08	06:50 (B17)	06:09	06:48 (B17)	07:11	07:14		08:19	08:19	08:59 (B4)	10:34 (B1)
	21:36	20	07:10 (B17)	20:24	16	07:04 (B17)	19:02	16:45	15:48	15:43	45
29	05:10	06:49 (B17)	06:11	06:54 (B17)	07:13	07:16		08:21	09:00 (B4)	08:51	10:35 (B1)
	21:34	23	07:12 (B17)	20:22	3	06:57 (B17)	18:59	16:43	15:47	15:44	44
30	05:12	06:48 (B17)	06:13			07:15		07:18	08:22	09:02 (B4)	10:36 (B1)
	21:32	25	07:13 (B17)	20:19		18:56		16:40	15:46	15:45	44
31	05:14	06:46 (B17)	06:15			07:20				08:51	10:36 (B1)
	21:30	28	07:14 (B17)	20:17		16:38				15:46	45
Potential sun hours	529		469		385	324		247		216	
Total, worst case	121		1020			323		996		1476	
Sun reduction	0.49		0.50			0.26		0.08		0.07	
Oper. time red.	0.98		0.98			0.98		0.98		0.98	
Wind dir. red.	0.65		0.65			0.63		0.60		0.60	
Total reduction	0.31		0.31			0.15		0.05		0.04	
Total, real	37		316			50		47		60	

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

		January	February	March	April	May	June		July		August	September	October	November	December	
1	08:50 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	21	05:07 (B12) 21:28 (B24)	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	19	05:08 (B12) 21:28 (B24)	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		21:15 (B24)	04:32 22:08		05:09 (B12) 21:28 (B24)	05:19 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56		21:15 (B24)	04:33 22:07	18	05:10 (B12) 21:27 (B24)	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57		21:14 (B24)	04:34 22:06	14	05:11 (B12) 21:27 (B24)	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		05:06 (B12) 21:20 (B24)	04:35 22:06	12	05:12 (B12) 21:26 (B24)	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		05:05 (B12) 21:20 (B24)	04:36 22:05	9	21:20 (B24) 21:26 (B24)	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		05:05 (B12) 21:22 (B24)	04:37 22:04	6	21:21 (B24) 21:25 (B24)	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	14	05:04 (B12) 21:22 (B24)	04:38 22:03	4	21:22 (B24) 21:24 (B24)	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	16	05:04 (B12) 21:23 (B24)	04:39 22:02	2		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	17	05:03 (B12) 21:24 (B24)	04:41 22:01			05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:17	04:27 22:05	20	05:03 (B12) 21:25 (B24)	04:42 22:00			05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	22	05:03 (B12) 21:26 (B24)	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	24	05:03 (B12) 21:27 (B24)	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	25	05:02 (B12) 21:26 (B24)	04:46 21:56			05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:01 21:25	04:26 22:08	25	05:02 (B12) 21:27 (B24)	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	27	05:02 (B12) 21:28 (B24)	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	28	05:02 (B12) 21:28 (B24)	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	28	05:02 (B12) 21:28 (B24)	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	28	05:02 (B12) 21:29 (B24)	04:54 21:49			05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	29	05:03 (B12) 21:30 (B24)	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	29	05:03 (B12) 21:30 (B24)	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	29	05:03 (B12) 21:29 (B24)	04:59 21:44			05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	28	05:04 (B12) 21:30 (B24)	05:01 21:43			06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	28	05:04 (B12) 21:30 (B24)	05:03 21:41			06:03 20:32	07:05 19:10	08:13 16:52	08:18 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	28	05:04 (B12) 21:29 (B24)	05:05 21:39			06:05 20:29	07:07 19:07	08:15 16:50	08:19 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	27	05:05 (B12) 21:30 (B24)	05:06 21:37			06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	27	05:05 (B12) 21:29 (B24)	05:08 21:35			06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	25	05:06 (B12) 21:29 (B24)	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	23	05:07 (B12) 21:29 (B24)	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		23		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	105		384	324	248	216	
Total, worst case							597									
Sun reduction							0.56			0.49						
Oper. time red.							0.98			0.98						
Wind dir. red.							0.63			0.62						
Total reduction							0.34			0.30						
Total, real							205			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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
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26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	08:15 (B1) 19:53	05:32 20:55	04:36 21:53
2	08:51 15:49	08:13 16:47	07:08 17:50	08:17 (B1) 19:55	05:30 20:58	04:35 21:54
3	08:50 15:50	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:32 21:57
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:32 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:31 21:59
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	05:15 21:12	04:28 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:28 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04
12	08:44 16:04	07:52 17:10	08:20 (B1) 18:11	06:20 20:16	06:45 (B17) 21:18	05:08 22:05
13	08:43 16:06	07:50 17:12	08:18 (B1) 18:13	06:17 20:18	06:43 (B17) 21:20	05:06 22:06
14	08:42 16:08	07:47 17:14	08:15 (B1) 18:15	06:14 20:20	06:40 (B17) 21:22	05:04 22:07
15	08:41 16:10	07:45 17:17	08:13 (B1) 18:17	06:12 20:22	06:38 (B17) 21:24	05:02 22:07
16	08:40 16:12	07:43 17:19	08:12 (B1) 18:20	06:09 20:24	06:35 (B17) 21:26	05:00 22:08
17	08:39 16:14	07:40 17:21	08:11 (B1) 18:22	06:07 20:26	06:33 (B17) 21:27	04:59 22:09
18	08:38 16:16	07:38 17:23	08:10 (B1) 18:24	06:04 20:28	06:31 (B17) 21:29	04:57 22:09
19	08:36 16:18	07:35 17:25	08:10 (B1) 18:26	06:02 20:30	06:31 (B17) 21:31	04:55 22:09
20	08:35 16:20	07:33 17:28	08:10 (B1) 18:28	05:59 20:33	06:31 (B17) 21:33	04:53 22:10
21	08:33 16:22	07:31 17:30	08:10 (B1) 18:30	05:57 20:35	06:31 (B17) 21:35	04:52 22:10
22	08:32 16:24	07:28 17:32	08:09 (B1) 18:32	05:54 20:37	06:32 (B17) 21:37	04:50 22:10
23	08:30 16:26	07:26 17:34	08:10 (B1) 18:34	05:52 20:39	06:32 (B17) 21:38	04:48 22:10
24	08:29 16:28	07:23 17:37	08:10 (B1) 18:36	05:49 20:41	06:33 (B17) 21:40	04:47 22:10
25	08:27 16:30	07:21 17:39	08:10 (B1) 18:38	05:47 20:43	06:35 (B17) 21:42	04:45 22:10
26	08:26 16:32	07:18 17:41	08:11 (B1) 18:40	05:44 20:45	06:37 (B17) 21:43	04:44 22:10
27	08:24 16:34	07:16 17:43	08:12 (B1) 18:43	05:42 20:47	06:43 (B17) 21:45	04:42 22:10
28	08:22 16:36	07:13 17:45	08:13 (B1) 18:45	05:39 20:49	06:41 (B17) 21:47	04:41 22:10
29	08:20 16:39		08:34 (B1) 18:57	05:37 20:51	06:39 (B17) 21:48	04:39 22:10
30	08:19 16:41			05:35 20:53	06:38 (B17) 21:50	04:38 22:09
31	08:17 16:43				06:37 (B17) 21:51	04:37 22:09
Potential sun hours	235	266	366	426	508	529
Total, worst case		414	27	232		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.62	0.62	0.65		
Total reduction		0.12	0.25	0.32		
Total, real		50	7	73		

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:54 (B1) 09:00 (B1)	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:49 (B1) 09:03 (B1)	07:46 16:13
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:47 (B1) 09:05 (B1)	07:49 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	08:45 (B1) 09:06 (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) 09:08 (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) 09:09 (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) 09:09 (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) 09:09 (B1)	07:59 16:02
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:41 (B1) 09:10 (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) 09:10 (B1)	08:03 15:59
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:40 (B1) 09:09 (B1)	08:05 15:58
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:40 (B1) 09:09 (B1)	08:07 15:56
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:41 (B1) 09:09 (B1)	08:09 15:55
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:41 (B1) 09:08 (B1)	08:11 15:53
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	07:41 (B1) 08:07 (B1)	08:13 15:52
26	05:04 21:39	06:05 20:30	07:07 19:07	08:09 17:50	07:42 (B1) 08:07 (B1)	08:15 15:51
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:47	07:43 (B1) 08:05 (B1)	08:17 15:49
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:45	07:45 (B1) 08:03 (B1)	08:19 15:48
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	07:48 (B1) 08:02 (B1)	08:21 15:47
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:40	07:50 (B1) 07:59 (B1)	08:22 15:46
31	05:14 21:30	06:15 20:17	07:17 18:54	08:19 17:38	07:51 (B1) 07:59 (B1)	08:23 15:45
Potential sun hours	529	469	385	324	247	216
Total, worst case		231		449		
Sun reduction		0.50		0.26		
Oper. time red.		0.98		0.98		
Wind dir. red.		0.65		0.62		
Total reduction		0.32		0.16		
Total, real		73		70		

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:50 15:48	08:15 16:45	07:11 17:47	07:46 (B12) 17:18 (B24)	06:49 19:53	07:25 (B11) 20:55
2	08:50 15:49	08:13 16:47	07:08 17:50	07:45 (B12) 17:20 (B24)	06:46 19:55	07:24 (B11) 20:57
3	08:50 15:51	08:11 16:50	07:05 17:52	07:46 (B12) 17:23 (B24)	06:43 19:57	07:23 (B11) 20:59
4	08:50 15:52	08:09 16:52	16:04 (B25) 17:54	07:45 (B12) 17:25 (B24)	06:41 19:59	07:23 (B11) 21:01
5	08:49 15:53	08:07 16:54	16:00 (B25) 17:56	07:45 (B12) 17:26 (B24)	06:38 20:01	07:22 (B11) 21:03
6	08:49 15:55	08:05 16:56	15:58 (B25) 17:58	07:46 (B12) 17:27 (B24)	06:35 20:03	07:22 (B11) 21:05
7	08:48 15:56	08:02 16:59	15:57 (B25) 18:00	07:46 (B12) 17:27 (B24)	06:33 20:05	07:22 (B11) 21:08
8	08:47 15:58	08:00 17:01	15:55 (B25) 18:03	07:46 (B12) 17:26 (B24)	06:30 20:07	07:21 (B11) 21:10
9	08:47 15:59	07:58 17:03	15:55 (B25) 18:05	07:48 (B12) 17:27 (B24)	06:27 20:09	07:22 (B11) 21:12
10	08:46 16:01	07:56 17:05	15:54 (B25) 18:07	07:49 (B12) 17:26 (B24)	06:25 20:12	07:22 (B11) 21:14
11	08:45 16:03	07:54 17:08	15:53 (B25) 18:09	07:50 (B12) 17:25 (B24)	06:22 20:14	07:23 (B11) 21:16
12	08:44 16:04	07:52 17:10	15:53 (B25) 18:11	07:54 (B12) 17:23 (B24)	06:20 20:16	07:23 (B11) 21:18
13	08:43 16:06	07:49 17:12	15:53 (B25) 18:13	17:05 (B24) 17:22 (B24)	06:17 20:18	07:24 (B11) 21:19
14	08:42 16:08	07:47 17:14	15:52 (B25) 18:15	17:07 (B24) 17:20 (B24)	06:14 20:20	07:25 (B11) 21:21
15	08:41 16:10	07:45 17:16	15:53 (B25) 18:17	17:10 (B24) 17:16 (B24)	06:12 20:22	07:27 (B11) 21:23
16	08:40 16:12	07:42 17:19	15:52 (B25) 18:19	06:09 20:24	07:29 (B11) 21:25	07:29 (B11) 21:25
17	08:39 16:14	07:40 17:21	15:53 (B25) 18:22	06:07 20:26	07:34 (B11) 21:27	07:34 (B11) 21:27
18	08:37 16:16	07:38 17:23	15:52 (B25) 18:24	06:04 20:28	07:38 (B11) 21:29	07:38 (B11) 21:29
19	08:36 16:18	07:35 17:25	15:53 (B25) 18:26	06:02 20:30	07:38 (B11) 21:31	07:38 (B11) 21:31
20	08:35 16:20	07:33 17:28	15:53 (B25) 18:28	05:59 20:32	07:38 (B11) 21:33	07:38 (B11) 21:33
21	08:33 16:22	07:30 17:30	15:54 (B25) 18:30	05:57 20:34	07:38 (B11) 21:35	07:38 (B11) 21:35
22	08:32 16:24	07:28 17:32	07:58 (B12) 18:32	05:54 20:37	07:38 (B11) 21:36	07:38 (B11) 21:36
23	08:30 16:26	07:26 17:34	07:53 (B12) 18:34	05:52 20:39	07:38 (B11) 21:38	07:38 (B11) 21:38
24	08:29 16:28	07:23 17:36	07:51 (B12) 18:36	05:49 20:41	07:38 (B11) 21:40	07:38 (B11) 21:40
25	08:27 16:30	07:21 17:39	07:49 (B12) 18:38	05:47 20:43	07:38 (B11) 21:41	07:38 (B11) 21:41
26	08:25 16:32	07:18 17:41	07:49 (B12) 18:40	06:37 (B11) 20:45	07:38 (B11) 21:43	07:38 (B11) 21:43
27	08:24 16:34	07:16 17:43	07:47 (B12) 18:42	06:33 (B11) 20:47	07:38 (B11) 21:45	07:38 (B11) 21:45
28	08:22 16:36	07:13 17:45	07:46 (B12) 18:45	06:30 (B11) 20:49	07:38 (B11) 21:46	07:38 (B11) 21:46
29	08:20 16:39	07:11 17:47	07:45 (B12) 19:47	06:27 (B11) 20:51	07:38 (B11) 21:48	07:38 (B11) 21:48
30	08:18 16:41	07:09 17:49	07:44 (B12) 19:49	06:25 (B11) 20:53	07:38 (B11) 21:49	07:38 (B11) 21:49
31	08:16 16:43	07:07 17:51	07:43 (B12) 19:51	06:23 (B11) 20:55	07:38 (B11) 21:51	07:38 (B11) 21:51
Potential sun hours	235	266	366	426	508	528
Total, worst case		730	674	477	351	765
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.98	0.98	0.98	0.98	0.98
Wind dir. red.		0.66	0.64	0.65	0.63	0.67
Total reduction		0.13	0.26	0.32	0.35	0.37
Total, real		95	175	153	123	280

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July				August				September				October				November				December	
1	04:30		05:12 (B18)	05:16		20:22 (B22)	06:17		07:22 (B11)	07:17		17:44 (B24)	07:22		15:24 (B25)	08:24						
	22:09	26	05:38 (B18)	21:28	21	20:43 (B22)	20:14	30	07:52 (B11)	18:53	19	18:03 (B24)	16:36	28	15:52 (B25)	15:45						
2	04:31		05:13 (B18)	05:17		20:22 (B22)	06:19		07:21 (B11)	07:19		08:31 (B12)	07:25		15:25 (B25)	08:26						
	22:08	26	05:39 (B18)	21:26	22	20:44 (B22)	20:11	31	07:52 (B11)	18:51	31	18:03 (B24)	16:34	26	15:51 (B25)	15:44						
3	04:32		05:14 (B18)	05:19		20:22 (B22)	06:21		07:20 (B11)	07:21		08:27 (B12)	07:27		15:25 (B25)	08:27						
	22:08	25	05:39 (B18)	21:24	22	20:44 (B22)	20:09	33	07:53 (B11)	18:48	39	18:04 (B24)	16:31	25	15:50 (B25)	15:43						
4	04:33		05:14 (B18)	05:21		20:22 (B22)	06:23		07:18 (B11)	07:23		08:25 (B12)	07:29		15:27 (B25)	08:29						
	22:07	25	05:39 (B18)	21:21	22	20:44 (B22)	20:06	34	07:52 (B11)	18:45	43	18:04 (B24)	16:29	22	15:49 (B25)	15:42						
5	04:34		05:15 (B18)	05:23		20:22 (B22)	06:25		07:18 (B11)	07:25		08:24 (B12)	07:31		15:28 (B25)	08:31						
	22:06	24	05:39 (B18)	21:19	21	20:43 (B22)	20:03	34	07:52 (B11)	18:43	46	18:04 (B24)	16:27	19	15:47 (B25)	15:42						
6	04:35		05:15 (B18)	05:25		20:22 (B22)	06:27		07:17 (B11)	07:27		08:22 (B12)	07:33		15:31 (B25)	08:32						
	22:06	24	05:39 (B18)	21:17	21	20:43 (B22)	20:01	35	07:52 (B11)	18:40	48	18:03 (B24)	16:25	15	15:46 (B25)	15:41						
7	04:36		05:16 (B18)	05:27		20:22 (B22)	06:29		07:17 (B11)	07:29		08:21 (B12)	07:35		15:34 (B25)	08:34						
	22:05	22	05:38 (B18)	21:15	19	20:41 (B22)	19:58	34	07:51 (B11)	18:38	50	18:03 (B24)	16:23	8	15:42 (B25)	15:40						
8	04:37		05:17 (B18)	05:29		20:23 (B22)	06:31		07:17 (B11)	07:31		08:20 (B12)	07:38			08:35						
	22:04	21	05:38 (B18)	21:13	17	20:40 (B22)	19:55	34	07:51 (B11)	18:35	50	18:02 (B24)	16:21			15:40						
9	04:38		05:17 (B18)	05:31		20:24 (B22)	06:33		07:17 (B11)	07:33		08:19 (B12)	07:40			08:36						
	22:03	20	05:37 (B18)	21:11	14	20:38 (B22)	19:53	34	07:51 (B11)	18:32	49	18:01 (B24)	16:19			15:39						
10	04:39		05:18 (B18)	05:33		20:24 (B22)	06:35		07:17 (B11)	07:36		08:20 (B12)	07:42			08:38						
	22:02	19	05:37 (B18)	21:08	11	20:35 (B22)	19:50	33	07:50 (B11)	18:30	46	17:59 (B24)	16:17			15:39						
11	04:41		05:19 (B18)	05:35		20:25 (B22)	06:37		07:17 (B11)	07:38		08:19 (B12)	07:44			08:39						
	22:01	17	05:36 (B18)	21:06	8	20:33 (B22)	19:47	32	07:49 (B11)	18:27	43	17:56 (B24)	16:15			15:38						
12	04:42		05:21 (B18)	05:37		20:27 (B22)	06:39		07:18 (B11)	07:40		08:19 (B12)	07:46			08:40						
	22:00	15	05:36 (B18)	21:04	4	20:31 (B22)	19:45	30	07:48 (B11)	18:25	38	17:53 (B24)	16:13			15:38						
13	04:43		05:22 (B18)	05:39			06:41		07:18 (B11)	07:42		08:19 (B12)	07:48			08:41						
	21:59	12	05:34 (B18)	21:01			19:42	29	07:47 (B11)	18:22	31	17:50 (B24)	16:11			15:38						
14	04:45		05:23 (B18)	05:41			06:43		07:19 (B11)	07:44		08:19 (B12)	07:50			08:42						
	21:58	9	05:32 (B18)	20:59			19:39	26	07:45 (B11)	18:19	26	08:45 (B12)	16:09			15:38						
15	04:46		05:27 (B18)	05:43			06:45		07:20 (B11)	07:46		08:20 (B12)	07:53			08:43						
	21:56	1	05:28 (B18)	20:57			19:37	23	07:43 (B11)	18:17	30	16:43 (B25)	16:07			15:38						
16	04:48			05:45			06:47		07:22 (B11)	07:48		08:21 (B12)	07:55			08:44						
	21:55			20:54			19:34	19	07:41 (B11)	18:14	38	16:48 (B25)	16:06			15:38						
17	04:49			05:47			06:49		07:25 (B11)	07:50		08:22 (B12)	07:57			08:45						
	21:54			20:52			19:31	13	07:38 (B11)	18:12	40	16:50 (B25)	16:04			15:38						
18	04:51			05:49			06:51		07:52			08:23 (B12)	07:59			08:46						
	21:52			20:49			19:28			18:09	40	16:51 (B25)	16:02			15:38						
19	04:52			05:51			06:53			07:54		08:25 (B12)	08:01			08:47						
	21:51			20:47			19:26			18:07	38	16:52 (B25)	16:01			15:38						
20	04:54			05:53			06:55			07:56		16:26 (B25)	08:03			08:48						
	21:49			20:44			19:23			18:04	27	16:53 (B25)	15:59			15:39						
21	04:56			05:55			06:57			07:59		16:24 (B25)	08:05			08:48						
	21:48			20:42			19:20			18:02	30	16:54 (B25)	15:58			15:39						
22	04:57			05:57			06:59			08:01		16:23 (B25)	08:07			08:49						
	21:46			20:39			19:18			17:59	31	16:54 (B25)	15:56			15:39						
23	04:59			05:59			07:01			08:03		16:23 (B25)	08:09			08:49						
	21:44			20:37			19:15			17:57	32	16:55 (B25)	15:55			15:40						
24	05:01		20:31 (B22)	06:01			07:03			08:05		16:22 (B25)	08:11			08:50						
	21:43	5	20:36 (B22)	20:34			19:12			17:54	33	16:55 (B25)	15:53			15:40						
25	05:03		20:28 (B22)	06:03			07:05			07:07		15:22 (B25)	08:13			08:50						
	21:41	10	20:38 (B22)	20:32			19:10			16:52	32	15:54 (B25)	15:52			15:41						
26	05:04		20:27 (B22)	06:05		07:35 (B11)	07:07			07:09		15:21 (B25)	08:15			08:50						
	21:39	13	20:40 (B22)	20:29	5	07:40 (B11)	19:07			16:50	33	15:54 (B25)	15:51			15:42						
27	05:06		20:26 (B22)	06:07		07:30 (B11)	07:09			07:12		15:22 (B25)	08:17			08:51						
	21:37	15	20:41 (B22)	20:27	15	07:45 (B11)	19:04			16:47	33	15:55 (B25)	15:49			15:43						
28	05:08		20:24 (B22)	06:09		07:27 (B11)	07:11			07:14		15:22 (B25)	08:19			08:51						
	21:35	17	20:41 (B22)	20:24	20	07:47 (B11)	19:01			16:45	32	15:54 (B25)	15:48			15:44						
29	05:10		20:24 (B22)	06:11		07:26 (B11)	07:13		17:48 (B24)	07:16		15:23 (B25)	08:20			08:51						
	21:34	18	20:42 (B22)	20:22	23	07:49 (B11)	18:59	11	17:59 (B24)	16:43	31	15:54 (B25)	15:47			15:45						
30	05:12		20:23 (B22)	06:13		07:24 (B11)	07:15		17:46 (B24)	07:18		15:23 (B25)	08:22			08:51						
	21:32	20	20:43 (B22)	20:19	26	07:50 (B11)	18:56	16	18:02 (B24)	16:40	30	15:53 (B25)	15:46			15:46						
31	05:14		20:23 (B22)	06:15		07:23 (B11)				07:20		15:23 (B25)				08:51						
	21:30	21	20:44 (B22)	20:16	28	07:51 (B11)				16:38	29	15:52 (B25)				15:47						
Potential sun hours	529			469				385		324			247			216						
Total, worst case		405			319			531			1118			143								
Sun reduction		0.49			0.50			0.43			0.26			0.08								
Oper. time red.		0.98			0.98			0.98			0.98			0.98								
Wind dir. red.		0.66			0.64			0.65			0.65			0.67								
Total reduction		0.32			0.31			0.27			0.16			0.05								
Total, real		128			99			145			184			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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Kaupres 1 - Shadow Receptor: 1.0 × 1.0

Azimuth: 0.0° Slope: 90.0° (127)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:50 15:48	08:15 16:45	07:11 17:47	07:47 (B12) 19:53	07:26 (B11) 20:55	20:16 (B22) 21:52
2	08:50 15:49	08:13 16:47	07:08 17:50	07:47 (B12) 19:55	07:25 (B11) 20:57	20:14 (B22) 21:54
3	08:50 15:51	08:11 16:50	07:05 17:52	07:47 (B12) 19:57	07:24 (B11) 20:59	20:13 (B22) 21:55
4	08:50 15:52	08:09 16:52	16:06 (B25) 17:54	07:47 (B12) 19:59	07:24 (B11) 21:01	20:12 (B22) 21:56
5	08:49 15:53	08:07 16:54	16:02 (B25) 17:56	07:46 (B12) 20:01	07:23 (B11) 21:03	20:12 (B22) 21:58
6	08:49 15:55	08:05 16:56	16:00 (B25) 17:58	07:47 (B12) 20:03	07:23 (B11) 21:05	20:12 (B22) 21:59
7	08:48 15:56	08:02 16:59	15:59 (B25) 18:00	07:48 (B12) 20:05	07:23 (B11) 21:08	20:11 (B22) 22:00
8	08:47 15:58	08:00 17:01	15:57 (B25) 18:03	07:48 (B12) 20:07	07:22 (B11) 21:10	20:11 (B22) 22:01
9	08:47 15:59	07:58 17:03	15:56 (B25) 18:05	07:50 (B12) 20:09	07:23 (B11) 21:12	20:11 (B22) 22:02
10	08:46 16:01	07:56 17:05	15:56 (B25) 18:07	07:51 (B12) 20:12	07:23 (B11) 21:14	20:11 (B22) 22:03
11	08:45 16:03	07:54 17:08	15:54 (B25) 18:09	07:53 (B12) 20:14	07:24 (B11) 21:16	20:11 (B22) 22:04
12	08:44 16:04	07:52 17:10	15:54 (B25) 18:11	17:04 (B24) 20:16	07:24 (B11) 21:18	20:11 (B22) 22:05
13	08:43 16:06	07:49 17:12	15:54 (B25) 18:13	17:06 (B24) 20:18	07:25 (B11) 21:19	20:12 (B22) 22:06
14	08:42 16:08	07:47 17:14	15:54 (B25) 18:15	17:07 (B24) 20:20	07:26 (B11) 21:21	20:13 (B22) 22:06
15	08:41 16:10	07:45 17:16	15:54 (B25) 18:17	17:11 (B24) 20:22	07:28 (B11) 21:23	20:13 (B22) 22:07
16	08:40 16:12	07:42 17:19	15:53 (B25) 18:19	17:15 (B24) 20:24	07:30 (B11) 21:25	20:14 (B22) 22:08
17	08:39 16:14	07:40 17:21	15:54 (B25) 18:22	17:11 (B24) 20:26	07:35 (B11) 21:27	20:16 (B22) 22:08
18	08:37 16:16	07:38 17:23	15:53 (B25) 18:24	17:12 (B24) 20:28	07:38 (B11) 21:29	20:18 (B22) 22:09
19	08:36 16:18	07:35 17:25	15:54 (B25) 18:26	17:13 (B24) 20:30	07:39 (B11) 21:31	20:20 (B22) 22:09
20	08:35 16:20	07:33 17:28	15:54 (B25) 18:28	17:14 (B24) 20:32	07:40 (B11) 21:33	20:21 (B22) 22:09
21	08:33 16:22	07:30 17:30	15:56 (B25) 18:30	17:15 (B24) 20:34	07:41 (B11) 21:35	20:22 (B22) 22:10
22	08:32 16:24	07:28 17:32	15:57 (B12) 18:32	17:16 (B24) 20:37	07:42 (B11) 21:36	20:23 (B22) 22:10
23	08:30 16:26	07:26 17:34	15:58 (B12) 18:34	17:17 (B24) 20:39	07:43 (B11) 21:38	20:24 (B22) 22:10
24	08:29 16:28	07:23 17:36	15:59 (B12) 18:36	17:18 (B24) 20:41	07:44 (B11) 21:40	20:25 (B22) 22:10
25	08:27 16:30	07:21 17:39	16:00 (B12) 18:38	17:19 (B24) 20:43	07:45 (B11) 21:41	20:26 (B22) 22:10
26	08:25 16:32	07:18 17:41	16:01 (B12) 18:40	17:20 (B24) 20:45	07:46 (B11) 21:43	20:27 (B22) 22:10
27	08:24 16:34	07:16 17:43	16:02 (B12) 18:42	17:21 (B24) 20:47	07:47 (B11) 21:45	20:28 (B22) 22:10
28	08:22 16:36	07:13 17:45	16:03 (B12) 18:45	17:22 (B24) 20:49	07:48 (B11) 21:46	20:29 (B22) 22:10
29	08:20 16:39	07:11 17:47	16:04 (B12) 18:47	17:23 (B24) 20:51	07:49 (B11) 21:48	20:30 (B22) 22:10
30	08:18 16:41	07:09 17:49	16:05 (B12) 18:49	17:24 (B24) 20:53	07:50 (B11) 21:50	20:31 (B22) 22:10
31	08:16 16:43	07:07 17:51	16:06 (B12) 18:51	17:25 (B24) 20:55	07:51 (B11) 21:52	20:32 (B22) 22:10
Potential sun hours	235	266	366	426	508	528
Total, worst case		730	665	482	325	742
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.98	0.98	0.98	0.98	0.98
Wind dir. red.		0.66	0.64	0.65	0.63	0.67
Total reduction		0.13	0.26	0.32	0.35	0.37
Total, real		95	172	154	114	271

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December		
1	04:30	05:12 (B18)	05:16	20:21 (B22)	06:17	07:23 (B11)	07:17	17:45 (B24)	07:22	15:25 (B25)	08:24							
2	22:09	25 05:37 (B18)	21:28	21 20:42 (B22)	20:14	30 07:53 (B11)	18:53	18 18:03 (B24)	16:36	28 15:53 (B25)	15:45							
3	04:31	05:13 (B18)	05:17	20:21 (B22)	06:19	07:22 (B11)	07:19	08:34 (B12)	07:25	15:26 (B25)	08:26							
4	22:08	25 05:38 (B18)	21:26	21 20:42 (B22)	20:11	32 07:54 (B11)	18:51	27 18:03 (B24)	16:34	26 15:52 (B25)	15:44							
5	04:32	05:13 (B18)	05:19	20:21 (B22)	06:21	07:21 (B11)	07:21	08:30 (B12)	07:27	15:27 (B25)	08:27							
6	22:08	25 05:38 (B18)	21:24	22 20:43 (B22)	20:09	33 07:54 (B11)	18:48	37 18:04 (B24)	16:31	23 15:50 (B25)	15:43							
7	04:33	05:14 (B18)	05:21	20:21 (B22)	06:23	07:19 (B11)	07:23	08:28 (B12)	07:29	15:29 (B25)	08:29							
8	22:07	24 05:38 (B18)	21:21	22 20:43 (B22)	20:06	34 07:53 (B11)	18:45	41 18:04 (B24)	16:29	21 15:50 (B25)	15:42							
9	04:34	05:14 (B18)	05:23	20:20 (B22)	06:25	07:19 (B11)	07:25	08:26 (B12)	07:31	15:30 (B25)	08:31							
10	22:06	24 05:38 (B18)	21:19	22 20:42 (B22)	20:03	34 07:53 (B11)	18:43	46 18:04 (B24)	16:27	18 15:48 (B25)	15:42							
11	04:35	05:15 (B18)	05:25	20:21 (B22)	06:27	07:18 (B11)	07:27	08:24 (B12)	07:33	15:33 (B25)	08:32							
12	22:06	22 05:37 (B18)	21:17	21 20:42 (B22)	20:01	35 07:53 (B11)	18:40	47 18:03 (B24)	16:25	13 15:46 (B25)	15:41							
13	04:36	05:16 (B18)	05:27	20:21 (B22)	06:29	07:18 (B11)	07:29	08:23 (B12)	07:35	15:37 (B25)	08:34							
14	22:05	21 05:37 (B18)	21:15	20 20:41 (B22)	19:58	35 07:53 (B11)	18:38	49 18:03 (B24)	16:23	4 15:41 (B25)	15:40							
15	04:37	05:16 (B18)	05:29	20:21 (B22)	06:31	07:18 (B11)	07:31	08:22 (B12)	07:38		08:35							
16	22:04	21 05:37 (B18)	21:13	19 20:40 (B22)	19:55	35 07:53 (B11)	18:35	49 18:02 (B24)	16:21		15:40							
17	04:38	05:17 (B18)	05:31	20:22 (B22)	06:33	07:18 (B11)	07:33	08:21 (B12)	07:40		08:36							
18	22:03	19 05:36 (B18)	21:11	16 20:38 (B22)	19:53	34 07:52 (B11)	18:32	49 18:01 (B24)	16:19		15:39							
19	04:39	05:18 (B18)	05:33	20:22 (B22)	06:35	07:18 (B11)	07:36	08:21 (B12)	07:42		08:38							
20	22:02	17 05:35 (B18)	21:08	13 20:35 (B22)	19:50	33 07:51 (B11)	18:30	47 17:59 (B24)	16:17		15:39							
21	04:41	05:19 (B18)	05:35	20:23 (B22)	06:37	07:18 (B11)	07:38	08:21 (B12)	07:44		08:39							
22	22:01	15 05:34 (B18)	21:06	10 20:33 (B22)	19:47	33 07:51 (B11)	18:27	42 17:56 (B24)	16:15		15:38							
23	04:42	05:21 (B18)	05:37	20:25 (B22)	06:39	07:18 (B11)	07:40	08:21 (B12)	07:46		08:40							
24	22:00	13 05:34 (B18)	21:04	6 20:31 (B22)	19:45	32 07:50 (B11)	18:25	38 17:53 (B24)	16:13		15:38							
25	04:43	05:23 (B18)	05:39	20:27 (B22)	06:41	07:19 (B11)	07:42	08:20 (B12)	07:48		08:41							
26	21:59	9 05:32 (B18)	21:01	2 20:29 (B22)	19:42	29 07:48 (B11)	18:22	32 17:50 (B24)	16:11		15:38							
27	04:45	05:25 (B18)	05:41		06:43	07:20 (B11)	07:44	08:20 (B12)	07:50		08:42							
28	21:58	4 05:29 (B18)	20:59		19:39	27 07:47 (B11)	18:19	27 08:47 (B12)	16:09		15:38							
29	04:46		05:43		06:45	07:21 (B11)	07:46	08:21 (B12)	07:53		08:43							
30	21:56		20:57		19:37	24 07:45 (B11)	18:17	29 16:43 (B25)	16:07		15:38							
31	04:48		05:45		06:47	07:23 (B11)	07:48	08:22 (B12)	07:55		08:44							
32	21:55		20:54		19:34	20 07:43 (B11)	18:14	38 16:48 (B25)	16:06		15:38							
33	04:49		05:47		06:49	07:25 (B11)	07:50	08:23 (B12)	07:57		08:45							
34	21:54		20:52		19:31	15 07:40 (B11)	18:12	41 16:50 (B25)	16:04		15:38							
35	04:51		05:49		06:51	07:29 (B11)	07:52	08:24 (B12)	07:59		08:46							
36	21:52		20:49		19:28	6 07:35 (B11)	18:09	42 16:52 (B25)	16:02		15:38							
37	04:52		05:51		06:53	07:30 (B11)	07:54	08:25 (B12)	08:01		08:47							
38	21:51		20:47		19:26	07:31 (B11)	18:07	41 16:53 (B25)	16:01		15:38							
39	04:54		05:53		06:55	07:32 (B11)	07:56	08:29 (B12)	08:03		08:48							
40	21:49		20:44		19:23		18:04	36 16:54 (B25)	15:59		15:39							
41	04:56		05:55		06:57		07:59		16:25 (B25)	08:05	08:48							
42	21:48		20:42		19:20		18:02	29 16:54 (B25)	15:58		15:39							
43	04:57		05:57		06:59		08:01		16:24 (B25)	08:07	08:49							
44	21:46		20:39		19:18		17:59	31 16:55 (B25)	15:56		15:39							
45	04:59		05:59		07:01		08:03		16:24 (B25)	08:09	08:49							
46	21:44		20:37		19:15		17:57	32 16:56 (B25)	15:55		15:40							
47	05:01		06:01		07:03		08:05		16:24 (B25)	08:11	08:50							
48	21:43		20:34		19:12		17:54	32 16:56 (B25)	15:53		15:40							
49	05:03		06:03		07:05		07:07		15:23 (B25)	08:13	08:50							
50	21:41	5 20:34 (B22)	20:32		19:10		16:52	32 15:55 (B25)	15:52		15:41							
51	05:04		06:05		07:07		07:09		15:23 (B25)	08:15	08:50							
52	21:39	10 20:37 (B22)	20:29	5 07:41 (B11)	19:07		16:50	32 15:55 (B25)	15:51		15:42							
53	05:06		06:07		07:31 (B11)		07:12		15:23 (B25)	08:17	08:51							
54	21:37	13 20:39 (B22)	20:27	15 07:46 (B11)	19:04		16:47	32 15:55 (B25)	15:49		15:43							
55	05:08		06:09		07:29 (B11)		07:14		15:23 (B25)	08:19	08:51							
56	21:35	15 20:39 (B22)	20:24	19 07:48 (B11)	19:01		16:45	32 15:55 (B25)	15:48		15:44							
57	05:10		06:11		07:27 (B11)		07:16		15:24 (B25)	08:20	08:51							
58	21:34	17 20:40 (B22)	20:22	23 07:50 (B11)	18:59	9 17:58 (B24)	16:43	31 15:55 (B25)	15:47		15:45							
59	05:12		06:13		07:25 (B11)		07:15		15:24 (B25)	08:22	08:51							
60	21:32	18 20:41 (B22)	20:19	26 07:51 (B11)	18:56	14 18:01 (B24)	16:40	30 15:54 (B25)	15:46		15:46							
61	05:14		06:15		07:24 (B11)		07:20		15:24 (B25)		08:51							
62	21:30	19 20:42 (B22)	20:16	28 07:52 (B11)			16:38	29 15:53 (B25)			15:47							
Potential sun hours	529		469		385		324		247		216							
Total, worst case	361		331		544		1118		133									
Sun reduction	0.49		0.50		0.43		0.26		0.08									
Oper. time red.	0.98		0.98		0.98		0.98		0.98									
Wind dir. red.	0.66		0.64		0.65		0.65		0.67									
Total reduction	0.32		0.31		0.27		0.16		0.05									
Total, real	114		103		149		184		7									

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

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

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	06:49	05:32	06:28 (B1)
	15:48	16:45	17:47	19:53	20:55	33 07:01 (B1)
2	08:50	08:13	07:08	06:46	05:30	06:29 (B1)
	15:49	16:47	17:50	19:55	20:57	31 07:00 (B1)
3	08:50	08:11	07:06	06:43	05:28	06:29 (B1)
	15:51	16:50	17:52	19:57	21:00	31 07:00 (B1)
4	08:50	08:09	07:03	06:41	05:26	06:30 (B1)
	15:52	16:52	17:54	19:59	21:02	29 06:59 (B1)
5	08:49	08:07	07:00	06:38	05:23	06:30 (B1)
	15:53	16:54	17:56	20:01	21:04	28 06:58 (B1)
6	08:49	08:05	06:58	06:35	05:21	06:31 (B1)
	15:55	16:56	17:58	20:03	21:06	26 06:57 (B1)
7	08:48	08:03	06:55	06:33	05:19	06:32 (B1)
	15:56	16:59	18:00	20:05	21:08	24 06:56 (B1)
8	08:48	08:00	06:53	06:30	05:17	06:33 (B1)
	15:58	17:01	18:03	20:08	21:10	22 06:55 (B1)
9	08:47	07:58	06:50	06:27	05:15	06:35 (B1)
	15:59	17:03	18:05	20:10	21:12	18 06:53 (B1)
10	08:46	07:56	06:47	06:25	05:13	06:37 (B1)
	16:01	17:05	18:07	20:12	21:14	14 06:51 (B1)
11	08:45	07:54	06:45	06:22	05:10	06:40 (B1)
	16:03	17:08	18:09	20:14	21:16	7 06:47 (B1)
12	08:44	07:52	06:42	06:20	05:08	
	16:04	17:10	18:11	20:16	21:18	
13	08:43	07:49	06:39	06:17	05:06	
	16:06	17:12	18:13	20:18	21:20	
14	08:42	07:47	06:37	06:14	05:04	
	16:08	17:14	18:15	20:20	21:22	
15	08:41	07:45	06:34	06:12	06:46 (B1)	
	16:10	17:17	18:17	20:22	4 06:50 (B1)	
16	08:40	07:43	06:32	06:09	06:41 (B1)	
	16:12	17:19	18:20	1 06:58 (B4)	14 06:55 (B1)	
17	08:39	07:40	06:29	06:07	06:38 (B1)	
	16:14	17:21	18:22	6 07:00 (B4)	19 06:57 (B1)	
18	08:37	07:38	06:26	06:04	06:36 (B1)	
	16:16	17:23	18:24	10 07:01 (B4)	22 06:58 (B1)	
19	08:36	07:35	06:24	06:02	06:34 (B1)	
	16:18	17:25	18:26	13 07:02 (B4)	26 07:00 (B1)	
20	08:35	07:33	06:21	06:00	06:32 (B1)	
	16:20	17:28	18:28	16 07:02 (B4)	28 07:00 (B1)	
21	08:33	07:31	06:18	06:00	06:32 (B1)	
	16:22	17:30	18:30	19 07:02 (B4)	29 07:01 (B1)	
22	08:32	07:28	06:15	06:00	06:31 (B1)	
	16:24	17:32	18:32	20 07:03 (B4)	31 07:02 (B1)	
23	08:30	07:26	06:13	06:00	06:30 (B1)	
	16:26	17:34	18:34	19 07:02 (B4)	32 07:02 (B1)	
24	08:29	07:23	06:10	06:00	06:29 (B1)	
	16:28	17:37	18:36	19 07:01 (B4)	34 07:03 (B1)	
25	08:27	07:21	06:07	06:00	06:29 (B1)	
	16:30	17:39	18:38	16 06:59 (B4)	34 07:03 (B1)	
26	08:26	07:18	06:05	06:00	06:28 (B1)	
	16:32	17:41	18:40	15 06:59 (B4)	34 07:02 (B1)	
27	08:24	07:16	06:02	06:00	06:28 (B1)	
	16:34	17:43	18:43	11 06:56 (B4)	34 07:02 (B1)	
28	08:22	07:13	05:59	06:00	06:28 (B1)	
	16:36	17:45	18:45	2 06:51 (B4)	34 07:02 (B1)	
29	08:20		06:57	05:37	06:29 (B1)	
	16:39		19:47	20:51	33 07:02 (B1)	
30	08:18		06:54	05:35	06:28 (B1)	
	16:41		19:49	20:53	33 07:01 (B1)	
31	08:17		06:51		04:37	
	16:43		19:51		21:51	
Potential sun hours	235	266	366	426	508	529
Total, worst case			167	441	263	
Sun reduction			0.41	0.50	0.57	
Oper. time red.			0.98	0.98	0.98	
Wind dir. red.			0.64	0.65	0.65	
Total reduction			0.26	0.32	0.36	
Total, real			43	141	95	

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	04:31 22:09	05:17 21:26	06:49 (B1) 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	04:32 22:08	05:19 21:24	06:46 (B1) 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	04:33 22:07	05:21 21:22	06:45 (B1) 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	04:34 22:07	05:23 21:19	06:42 (B1) 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:41 (B1) 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) 19:58	07:29 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:40 (B1) 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) 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	04:39 22:02	05:33 21:08	06:37 (B1) 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) 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) 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	04:43 21:59	05:39 21:01	06:36 (B1) 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:36 (B1) 19:39	07:44 18:19	07:51 16:09	08:43 15:38
15	04:46 21:57	05:43 20:57	06:36 (B1) 19:37	07:46 18:17	07:53 16:07	5 12:33 (B22) 8 12:35 (B22)
16	04:48 21:55	05:45 20:54	06:36 (B1) 19:34	07:48 18:14	07:55 16:06	8 12:35 (B22) 9 12:36 (B22)
17	04:49 21:54	05:47 20:52	06:35 (B1) 19:31	07:33 (B4) 18:12	07:50 16:04	10 12:37 (B22) 11 12:38 (B22)
18	04:51 21:52	05:49 20:50	06:35 (B1) 19:29	07:31 (B4) 18:09	07:52 16:02	10 12:37 (B22) 11 12:38 (B22)
19	04:52 21:51	05:51 20:47	06:35 (B1) 19:26	07:30 (B4) 18:07	07:55 16:01	11 12:38 (B22) 12 12:39 (B22)
20	04:54 21:49	05:53 20:45	06:35 (B1) 19:23	07:29 (B4) 18:04	07:57 15:59	11 12:38 (B22) 12 12:39 (B22)
21	04:56 21:48	05:55 20:42	06:36 (B1) 19:20	07:29 (B4) 18:02	08:05 15:58	12 12:40 (B22) 13 12:41 (B22)
22	04:57 21:46	05:57 20:40	06:37 (B1) 19:18	07:28 (B4) 17:59	08:07 15:56	12 12:40 (B22) 13 12:41 (B22)
23	04:59 21:45	05:59 20:37	06:37 (B1) 19:15	07:29 (B4) 17:57	08:09 15:55	12 12:40 (B22) 13 12:41 (B22)
24	05:01 21:43	06:01 20:35	06:38 (B1) 19:12	07:31 (B4) 17:55	08:11 15:53	12 12:41 (B22) 13 12:42 (B22)
25	05:03 21:41	06:03 20:32	06:40 (B1) 19:10	07:33 (B4) 17:52	08:13 15:52	12 12:41 (B22) 13 12:42 (B22)
26	05:04 21:39	06:05 20:29	06:40 (B1) 19:07	07:36 (B4) 17:50	08:15 15:51	12 12:41 (B22) 13 12:42 (B22)
27	05:06 21:38	06:07 20:27	06:43 (B1) 19:04	07:43 (B4) 17:47	15:51 15:49	10 12:41 (B22) 11 12:42 (B22)
28	05:08 21:36	06:09 20:24	07:11 19:02	07:41 (B4) 17:44	15:49 15:48	10 12:41 (B22) 11 12:42 (B22)
29	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	12 12:41 (B22) 13 12:42 (B22)
30	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	12 12:41 (B22) 13 12:42 (B22)
31	05:14 21:30	06:15 20:17		07:20 16:38	08:51 15:47	12 12:41 (B22) 13 12:42 (B22)
Potential sun hours	529	469	385	324	247	216
Total, worst case		709	169			162
Sun reduction		0.50	0.43			0.07
Oper. time red.		0.98	0.98			0.98
Wind dir. red.		0.65	0.64			0.64
Total reduction		0.32	0.27			0.04
Total, real		225	45			7

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

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

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March	April	May	June
1	08:51	14:01 (B22)	08:15	14:07 (B22)	07:11	06:49			05:32	04:36
	15:48	45	14:46 (B14)	16:45	41	14:48 (B22)	17:47	19:53	20:55	21:52
2	08:50	14:02 (B22)	08:13	14:08 (B22)	07:08	06:46			05:30	04:35
	15:49	45	14:47 (B14)	16:47	40	14:48 (B22)	17:50	19:55	20:57	21:54
3	08:50	14:02 (B22)	08:11	14:09 (B22)	07:06	06:43			05:28	04:34
	15:51	45	14:47 (B14)	16:50	39	14:48 (B22)	17:52	19:57	20:59	21:55
4	08:50	14:01 (B22)	08:09	14:10 (B22)	07:03	06:41			05:26	04:33
	15:52	46	14:47 (B14)	16:52	37	14:47 (B22)	17:54	19:59	21:02	21:57
5	08:49	14:02 (B22)	08:07	14:11 (B22)	07:00	06:38			05:23	04:32
	15:53	46	14:48 (B14)	16:54	36	14:47 (B22)	17:56	20:01	21:04	21:58
6	08:49	14:02 (B22)	08:05	14:12 (B22)	06:58	06:35			05:21	04:31
	15:55	45	14:47 (B14)	16:56	33	14:45 (B22)	17:58	20:03	21:06	21:59
7	08:48	14:02 (B22)	08:03	14:14 (B22)	06:55	06:33			05:19	04:30
	15:56	45	14:47 (B14)	16:59	30	14:44 (B22)	18:00	20:05	21:08	22:00
8	08:47	14:02 (B22)	08:00	14:16 (B22)	06:53	06:30			05:17	04:29
	15:58	45	14:47 (B14)	17:01	27	14:43 (B22)	18:03	20:07	21:10	22:01
9	08:47	14:02 (B22)	07:58	14:17 (B22)	06:50	06:27			05:15	04:28
	15:59	45	14:47 (B14)	17:03	24	14:41 (B22)	18:05	20:10	21:12	22:02
10	08:46	14:02 (B22)	07:56	14:20 (B22)	06:47	06:25			05:13	04:28
	16:01	45	14:47 (B14)	17:05	18	14:38 (B22)	18:07	20:12	21:14	22:03
11	08:45	14:02 (B22)	07:54	14:26 (B22)	06:45	06:22			05:10	04:27
	16:03	45	14:47 (B14)	17:08	8	14:34 (B22)	18:09	20:14	21:16	22:04
12	08:44	14:01 (B22)	07:52		06:42	06:20		06:45 (B4)	05:08	04:27
	16:04	45	14:46 (B14)	17:10	18:11	20:16	3	06:48 (B4)	21:18	22:05
13	08:43	14:02 (B22)	07:49		06:39	06:17		06:43 (B4)	05:06	04:26
	16:06	43	14:45 (B14)	17:12	18:13	20:18	9	06:52 (B4)	21:20	22:06
14	08:42	14:02 (B22)	07:47		06:37	06:14		06:40 (B4)	05:04	04:26
	16:08	42	14:44 (B22)	17:14	18:15	20:20	13	06:53 (B4)	21:22	22:07
15	08:41	14:01 (B22)	07:45		06:34	06:12		06:38 (B4)	05:02	04:26
	16:10	43	14:44 (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		06:35 (B4)	05:01	04:25
	16:12	43	14:45 (B22)	17:19	18:20	20:24	19	06:54 (B4)	21:25	22:08
17	08:39	14:02 (B22)	07:40		06:29	06:07		06:34 (B4)	04:59	04:25
	16:14	43	14:45 (B22)	17:21	18:22	20:26	21	06:55 (B4)	21:27	22:08
18	08:37	14:02 (B22)	07:38		06:26	06:04		06:32 (B4)	04:57	04:25
	16:16	44	14:46 (B22)	17:23	18:24	20:28	23	06:55 (B4)	21:29	22:09
19	08:36	14:02 (B22)	07:35		06:23	06:02		06:32 (B4)	04:55	04:25
	16:18	45	14:47 (B22)	17:25	18:26	20:30	23	06:55 (B4)	21:31	22:09
20	08:35	14:03 (B22)	07:33		06:21	05:59		06:31 (B4)	04:53	04:25
	16:20	45	14:48 (B22)	17:28	18:28	20:32	24	06:55 (B4)	21:33	22:10
21	08:33	14:03 (B22)	07:31		06:18	05:57		06:32 (B4)	04:52	04:25
	16:22	45	14:48 (B22)	17:30	18:30	20:35	23	06:55 (B4)	21:35	22:10
22	08:32	14:03 (B22)	07:28		06:15	05:54		06:32 (B4)	04:50	04:25
	16:24	45	14:48 (B22)	17:32	18:32	20:37	23	06:55 (B4)	21:36	22:10
23	08:30	14:03 (B22)	07:26		06:13	05:52		06:32 (B4)	04:48	04:26
	16:26	45	14:48 (B22)	17:34	18:34	20:39	21	06:53 (B4)	21:38	22:10
24	08:29	14:03 (B22)	07:23		06:10	05:49		06:33 (B4)	04:47	04:26
	16:28	45	14:48 (B22)	17:37	18:36	20:41	20	06:53 (B4)	21:40	22:10
25	08:27	14:04 (B22)	07:21		06:07	05:47		06:34 (B4)	04:45	04:26
	16:30	45	14:49 (B22)	17:39	18:38	20:43	18	06:52 (B4)	21:42	22:10
26	08:25	14:04 (B22)	07:18		06:05	05:44		06:34 (B4)	04:44	04:27
	16:32	46	14:50 (B22)	17:41	18:40	20:45	16	06:50 (B4)	21:43	22:10
27	08:24	14:05 (B22)	07:16		06:02	05:42		06:36 (B4)	04:42	04:27
	16:34	45	14:50 (B22)	17:43	18:43	20:47	12	06:48 (B4)	21:45	22:10
28	08:22	14:05 (B22)	07:13		05:59	05:40		06:38 (B4)	04:41	04:28
	16:36	45	14:50 (B22)	17:45	18:45	20:49	7	06:45 (B4)	21:47	22:10
29	08:20	14:06 (B22)			06:57	05:37			04:39	04:28
	16:39	44	14:50 (B22)		19:47	20:51			21:48	22:10
30	08:18	14:06 (B22)			06:54	05:35			04:38	04:29
	16:41	44	14:50 (B22)		19:49	20:53			21:50	22:09
31	08:17	14:06 (B22)			06:51				04:37	
	16:43	42	14:48 (B22)		19:51				21:51	
Potential sun hours	235		266		366	426		508		529
Total, worst case	1381		333			291				
Sun reduction	0.13		0.20			0.50				
Oper. time red.	0.98		0.98			0.98				
Wind dir. red.	0.66		0.66			0.65				
Total reduction	0.09		0.13			0.32				
Total, real	120		44			93				

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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December		
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	13:49 (B22) 14:08 (B22)	08:24 15:45	13:44 (B22) 14:29 (B14)
2	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	13:46 (B22) 14:10 (B22)	08:26 15:44	13:45 (B22) 14:30 (B14)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	13:45 (B22) 14:13 (B22)	08:27 15:43	13:45 (B22) 14:30 (B14)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	13:43 (B22) 14:14 (B22)	08:29 15:42	13:46 (B22) 14:31 (B14)
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	13:41 (B22) 14:15 (B22)	08:31 15:42	13:47 (B22) 14:33 (B14)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	13:41 (B22) 14:17 (B22)	08:32 15:41	13:48 (B22) 14:34 (B14)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	13:39 (B22) 14:17 (B22)	08:34 15:40	13:48 (B22) 14:34 (B14)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	13:39 (B22) 14:19 (B22)	08:35 15:40	13:49 (B22) 14:35 (B14)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	13:38 (B22) 14:19 (B22)	08:37 15:39	13:50 (B22) 14:35 (B14)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	13:37 (B22) 14:19 (B22)	08:38 15:39	13:51 (B22) 14:36 (B14)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	13:38 (B22) 14:20 (B22)	08:39 15:38	13:51 (B22) 14:36 (B14)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	13:37 (B22) 14:20 (B22)	08:40 15:38	13:53 (B22) 14:37 (B14)
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	13:37 (B22) 14:22 (B22)	08:41 15:38	13:54 (B22) 14:38 (B14)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	13:37 (B22) 14:22 (B22)	08:43 15:38	13:54 (B22) 14:38 (B14)
15	04:46 21:57	05:43 20:57	06:45 (B4) 19:37	07:46 18:17	07:53 16:08	13:36 (B22) 14:22 (B22)	08:44 15:38	13:55 (B22) 14:38 (B14)
16	04:48 21:55	05:45 20:54	06:43 (B4) 19:34	07:48 18:14	07:55 16:06	13:37 (B22) 14:22 (B22)	08:45 15:38	13:55 (B22) 14:39 (B14)
17	04:49 21:54	05:47 20:52	06:40 (B4) 19:31	07:50 18:12	07:57 16:04	13:37 (B22) 14:22 (B22)	08:45 15:38	13:56 (B22) 14:40 (B14)
18	04:51 21:52	05:49 20:49	06:39 (B4) 19:29	07:52 18:09	07:59 16:02	13:37 (B22) 14:22 (B22)	08:46 15:38	13:57 (B22) 14:40 (B14)
19	04:52 21:51	05:51 20:47	06:38 (B4) 19:26	07:54 18:07	08:01 16:01	13:38 (B22) 14:23 (B22)	08:47 15:38	13:57 (B22) 14:40 (B14)
20	04:54 21:49	05:53 20:45	06:37 (B4) 19:23	07:57 18:04	08:03 15:59	13:38 (B22) 14:23 (B22)	08:48 15:39	13:58 (B22) 14:41 (B14)
21	04:56 21:48	05:55 20:42	06:37 (B4) 19:20	07:59 18:02	08:05 15:58	13:38 (B22) 14:23 (B22)	08:48 15:39	13:59 (B22) 14:42 (B14)
22	04:57 21:46	05:57 20:40	06:36 (B4) 19:18	08:01 17:59	08:07 15:56	13:39 (B22) 14:24 (B22)	08:49 15:39	13:59 (B22) 14:42 (B14)
23	04:59 21:45	05:59 20:37	06:36 (B4) 19:15	08:03 17:57	08:09 15:55	13:39 (B22) 14:24 (B22)	08:49 15:40	14:00 (B22) 14:43 (B14)
24	05:01 21:43	06:01 20:35	06:36 (B4) 19:12	08:05 17:55	08:11 15:53	13:39 (B22) 14:23 (B22)	08:50 15:40	14:00 (B22) 14:43 (B14)
25	05:03 21:41	06:03 20:32	06:36 (B4) 19:10	08:07 16:52	08:13 15:52	13:40 (B22) 14:23 (B22)	08:50 15:41	14:00 (B22) 14:43 (B14)
26	05:04 21:39	06:05 20:29	06:35 (B4) 19:07	08:09 16:50	08:15 15:51	13:40 (B22) 14:23 (B22)	08:51 15:42	14:00 (B22) 14:43 (B14)
27	05:06 21:37	06:07 20:27	06:37 (B4) 19:04	08:12 16:47	08:17 15:49	13:42 (B22) 14:24 (B22)	08:51 15:43	14:00 (B22) 14:44 (B14)
28	05:08 21:36	06:09 20:24	06:39 (B4) 19:02	08:14 16:45	08:19 15:48	13:42 (B22) 14:24 (B22)	08:51 15:44	14:01 (B22) 14:44 (B14)
29	05:10 21:34	06:11 20:22	06:41 (B4) 18:59	08:16 16:43	08:21 15:47	13:43 (B22) 14:26 (B14)	08:51 15:45	14:01 (B22) 14:45 (B14)
30	05:12 21:32	06:13 20:19	06:43 (B4) 18:56	08:18 16:40	08:22 15:46	13:43 (B22) 14:28 (B14)	08:51 15:46	14:01 (B22) 14:45 (B14)
31	05:14 21:30	06:15 20:17	06:45 (B4) 18:54	08:20 16:38	13:53 (B22) 14:04 (B22)		08:51 15:47	14:02 (B22) 14:46 (B14)
Potential sun hours	529	469	385	324	247	216		
Total, worst case		295		11	1216		1368	
Sun reduction		0.50		0.26	0.08		0.07	
Oper. time red.		0.98		0.98	0.98		0.98	
Wind dir. red.		0.65		0.66	0.66		0.66	
Total reduction		0.32		0.17	0.05		0.05	
Total, real		94		2	65		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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

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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	08:51 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
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
1	08:51		09:30 (B12)	08:15		08:58 (B11)	07:11			06:49		07:14 (B23)	05:32			04:36		05:18 (B15)
	15:48	30	15:05 (B25)	16:45	30	09:28 (B11)	17:47			19:53	57	19:06 (B22)	20:55			21:52	26	05:44 (B15)
2	08:50		09:29 (B12)	08:13		08:58 (B11)	07:08			06:46		07:11 (B23)	05:30			04:35		05:18 (B15)
	15:49	33	15:06 (B25)	16:47	31	09:29 (B11)	17:50			19:55	59	19:03 (B22)	20:57			21:54	27	05:45 (B15)
3	08:50		09:29 (B12)	08:11		08:58 (B11)	07:05			06:43		07:08 (B23)	05:28			04:34		05:17 (B15)
	15:51	35	15:08 (B25)	16:50	31	09:29 (B11)	17:52			19:57	56	08:14 (B18)	20:59			21:55	29	05:46 (B15)
4	08:50		09:28 (B12)	08:09		08:58 (B11)	07:03			06:41		07:06 (B23)	05:26			04:33		05:17 (B15)
	15:52	38	15:09 (B25)	16:52	32	09:30 (B11)	17:54			19:59	60	08:14 (B18)	21:01			21:56	29	05:46 (B15)
5	08:49		09:27 (B12)	08:07		08:58 (B11)	07:00			06:38		07:03 (B23)	05:23			04:32		05:17 (B15)
	15:53	40	15:10 (B25)	16:54	31	09:29 (B11)	17:56			20:01	64	08:14 (B18)	21:03			21:58	30	05:47 (B15)
6	08:49		09:27 (B12)	08:05		08:58 (B11)	06:58			06:35		07:02 (B23)	05:21			04:31		05:17 (B15)
	15:55	42	15:11 (B25)	16:56	32	09:30 (B11)	17:58			20:03	65	08:14 (B18)	21:05			21:59	31	05:48 (B15)
7	08:48		09:27 (B12)	08:02		08:59 (B11)	06:55			06:33		07:01 (B23)	05:19			04:30		05:16 (B15)
	15:56	42	15:12 (B25)	16:58	31	09:30 (B11)	18:00			20:05	67	08:14 (B18)	21:08			22:00	32	05:48 (B15)
8	08:47		09:27 (B12)	08:00		08:59 (B11)	06:53			06:30		07:00 (B23)	05:17			04:29		05:17 (B15)
	15:58	43	15:12 (B25)	17:01	31	09:30 (B11)	18:02			20:07	67	08:13 (B18)	21:10			22:01	32	05:49 (B15)
9	08:47		09:28 (B12)	07:58		08:59 (B11)	06:50			06:27		07:00 (B23)	05:15			04:28		05:16 (B15)
	15:59	43	15:12 (B25)	17:03	30	09:29 (B11)	18:05			20:09	66	08:13 (B18)	21:12			22:02	33	05:49 (B15)
10	08:46		09:28 (B12)	07:56		09:00 (B11)	06:47			06:25		07:00 (B23)	05:12			04:28		05:17 (B15)
	16:01	44	15:13 (B25)	17:05	29	09:29 (B11)	18:07			20:12	65	08:12 (B18)	21:14			22:03	33	05:50 (B15)
11	08:45		09:28 (B12)	07:54		09:00 (B11)	06:45			06:22		07:01 (B23)	05:10			04:27		05:16 (B15)
	16:03	44	15:13 (B25)	17:07	28	09:28 (B11)	18:09			20:14	62	08:11 (B18)	21:16			22:04	33	05:49 (B15)
12	08:44		09:28 (B12)	07:52		09:01 (B11)	06:42			06:20		07:01 (B23)	05:08			04:27		05:17 (B15)
	16:04	44	15:13 (B25)	17:10	27	09:28 (B11)	18:11			20:16	60	08:10 (B18)	21:18			22:05	33	05:50 (B15)
13	08:43		09:28 (B12)	07:49		09:02 (B11)	06:39			06:17		07:02 (B23)	05:06			04:26		05:17 (B15)
	16:06	46	15:14 (B25)	17:12	25	09:27 (B11)	18:13			20:18	57	08:10 (B18)	21:19			22:06	34	05:51 (B15)
14	08:42		09:29 (B12)	07:47		09:03 (B11)	06:37			06:14		07:02 (B23)	05:04			04:26		05:16 (B15)
	16:08	44	15:14 (B25)	17:14	22	09:25 (B11)	18:15			20:20	53	08:08 (B18)	21:21			22:06	34	05:50 (B15)
15	08:41		09:29 (B12)	07:45		09:05 (B11)	06:34			06:12		07:05 (B23)	05:02			04:26		05:17 (B15)
	16:10	44	15:14 (B25)	17:16	19	09:24 (B11)	18:17			20:22	46	08:07 (B18)	21:23			22:07	34	05:51 (B15)
16	08:40		09:29 (B12)	07:42		09:07 (B11)	06:31			06:09		07:32 (B18)	05:00			04:25		05:17 (B15)
	16:12	44	15:14 (B25)	17:19	14	09:21 (B11)	18:19			20:24	33	08:05 (B18)	21:25			22:08	34	05:51 (B15)
17	08:39		09:29 (B12)	07:40		09:12 (B11)	06:29			06:07		07:34 (B18)	04:59			04:25		05:17 (B15)
	16:14	43	15:14 (B25)	17:21	5	09:17 (B11)	18:22			20:26	30	08:04 (B18)	21:27			22:08	35	05:52 (B15)
18	08:37		09:30 (B12)	07:38			06:26			06:04		07:34 (B18)	04:57			04:25		05:17 (B15)
	16:16	42	15:14 (B25)	17:23			18:24			20:28	27	08:01 (B18)	21:29			22:09	35	05:52 (B15)
19	08:36		09:31 (B12)	07:35			06:23			06:02		07:37 (B18)	04:55			04:25		05:17 (B15)
	16:18	38	15:13 (B25)	17:25			18:26			20:30	22	07:59 (B18)	21:31			22:09	35	05:52 (B15)
20	08:35		09:31 (B12)	07:33			06:21			05:59		07:38 (B18)	04:53			04:25		05:17 (B15)
	16:20	37	15:12 (B25)	17:28			18:28			20:32	18	07:56 (B18)	21:33			22:10	35	05:52 (B15)
21	08:33		09:32 (B12)	07:31			06:18		17:58 (B22)	05:57		07:43 (B18)	04:52			04:25		05:17 (B15)
	16:22	34	15:12 (B25)	17:30			18:30	4	18:02 (B22)	20:34	9	07:52 (B18)	21:35			22:10	35	05:52 (B15)
22	08:32		09:33 (B12)	07:28			06:15		17:55 (B22)	05:54			04:50			04:25		05:18 (B15)
	16:24	30	15:11 (B25)	17:32			18:32	8	18:03 (B22)	20:37			21:36			22:10	35	05:53 (B15)
23	08:30		09:08 (B11)	07:26			06:13		17:54 (B22)	05:52			04:48			04:26		05:18 (B15)
	16:26	29	15:08 (B25)	17:34			18:34	12	18:06 (B22)	20:39			21:38			22:10	35	05:53 (B15)
24	08:29		09:05 (B11)	07:23			06:10		06:50 (B18)	05:49			04:47			04:26		05:18 (B15)
	16:28	31	09:52 (B12)	17:36			18:36	27	18:08 (B22)	20:41			21:40			22:10	35	05:53 (B15)
25	08:27		09:03 (B11)	07:21			06:07		06:45 (B18)	05:47			04:45		05:28 (B15)	04:26		05:19 (B15)
	16:30	32	09:51 (B12)	17:39			18:38	40	18:10 (B22)	20:43			21:41	6	05:34 (B15)	22:10	35	05:54 (B15)
26	08:25		09:03 (B11)	07:18			06:05		06:43 (B18)	05:44			04:44		05:24 (B15)	04:27		05:19 (B15)
	16:32	31	09:50 (B12)	17:41			18:40	46	18:12 (B22)	20:45			21:43	12	05:36 (B15)	22:10	34	05:53 (B15)
27	08:24		09:02 (B11)	07:16			06:02		06:41 (B18)	05:42			04:42		05:23 (B15)	04:27		05:20 (B15)
	16:34	29	09:48 (B12)	17:43			18:42	49	18:11 (B22)	20:47			21:45	15	05:38 (B15)	22:10	34	05:54 (B15)
28	08:22		09:01 (B11)	07:13			05:59		06:38 (B18)	05:39			04:41		05:21 (B15)	04:28		05:19 (B15)
	16:36	24	09:25 (B11)	17:45			18:45	54	18:11 (B22)	20:49			21:46	19	05:40 (B15)	22:10	35	05:54 (B15)
29	08:20		09:00 (B11)				06:57		07:37 (B18)	05:37			04:39		05:21 (B15)	04:28		05:20 (B15)
	16:38	26	09:26 (B11)				19:47	55	19:11 (B22)	20:51			21:48	21	05:42 (B15)	22:10	34	05:54 (B15)
30	08:18		08:59 (B11)				06:54		07:36 (B18)	05:35			04:38		05:20 (B15)	04:29		05:21 (B15)
	16:41	27	09:26 (B11)				19:49	55	19:09 (B22)	20:53			21:49	23	05:43 (B15)	22:09	33	05:54 (B15)
31	08:16		08:59 (B11)				06:51		07:34 (B18)				04:37		05:19 (B15)			
	16:43	28	09:27 (B11)				19:51	55	19:08 (B22)				21:51	25	05:44 (B15)			
Potential sun hours		235		266			366			426			508			529		
Total, worst case		1137		448			405			1043			121			989		
Sun reduction		0.13		0.20			0.41			0.50			0.57			0.56		
Oper. time red.		0.98		0.98			0.98			0.98			0.98			0.98		
Wind dir. red.		0.62		0.59			0.65			0.65			0.67			0.67		
Total reduction		0.08		0.11			0.26			0.31			0.37			0.36		
Total, real		91		51			104			326			44			356		

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

Day in month	Sun rise (hh:mm)	First time (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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July		August		September		October		November		December	
1	04:30		05:20 (B15)	05:16		06:17	07:00 (B23)	07:17		07:22	08:29 (B11)	08:24
	22:09	34	05:54 (B15)	21:28		20:14	08:10 (B18)	18:53		16:36	08:59 (B11)	15:45
2	04:31		05:21 (B15)	05:17		06:19	06:59 (B23)	07:19		07:25	08:28 (B11)	08:26
	22:08	33	05:54 (B15)	21:26		20:11	08:11 (B18)	18:51		16:34	08:59 (B11)	15:44
3	04:32		05:22 (B15)	05:19		06:21	06:58 (B23)	07:21		07:27	08:28 (B11)	08:27
	22:08	32	05:54 (B15)	21:24		20:09	08:11 (B18)	18:48		16:31	08:59 (B11)	15:43
4	04:32		05:22 (B15)	05:21		06:23	06:57 (B23)	07:23		07:29	08:28 (B11)	08:29
	22:07	32	05:54 (B15)	21:21		20:06	08:10 (B18)	18:45		16:29	09:00 (B11)	15:42
5	04:33		05:23 (B15)	05:23		06:25	06:57 (B23)	07:25		07:31	08:28 (B11)	08:31
	22:06	31	05:54 (B15)	21:19		20:03	08:10 (B18)	18:43		16:27	08:59 (B11)	15:41
6	04:35		05:23 (B15)	05:25		06:27	06:57 (B23)	07:27		07:33	08:28 (B11)	08:32
	22:06	31	05:54 (B15)	21:17		20:01	08:09 (B18)	18:40		16:25	09:00 (B11)	15:41
7	04:36		05:24 (B15)	05:27		06:29	06:58 (B23)	07:29		07:35	08:28 (B11)	08:34
	22:05	30	05:54 (B15)	21:15		19:58	08:09 (B18)	18:38		16:23	09:00 (B11)	15:40
8	04:37		05:24 (B15)	05:29		06:31	07:00 (B23)	07:31		07:38	08:28 (B11)	08:35
	22:04	30	05:54 (B15)	21:13		19:55	08:09 (B18)	18:35		16:21	08:59 (B11)	15:40
9	04:38		05:25 (B15)	05:31		06:33	07:02 (B23)	07:33		07:40	08:29 (B11)	08:36
	22:03	28	05:53 (B15)	21:11		19:53	08:08 (B18)	18:32		16:19	08:59 (B11)	15:39
10	04:39		05:25 (B15)	05:33		06:35	07:04 (B23)	07:36		07:42	08:29 (B11)	08:38
	22:02	28	05:53 (B15)	21:08		19:50	18:56 (B22)	18:30		16:17	08:59 (B11)	15:39
11	04:41		05:26 (B15)	05:35		06:37	07:06 (B23)	07:38		07:44	08:30 (B11)	08:39
	22:01	26	05:52 (B15)	21:06		19:47	18:58 (B22)	18:27		16:15	08:59 (B11)	15:38
12	04:42		05:26 (B15)	05:37		06:39	07:26 (B18)	07:40		07:46	08:31 (B11)	08:40
	22:00	25	05:51 (B15)	21:04		19:45	19:00 (B22)	18:24		16:13	08:58 (B11)	15:38
13	04:43		05:28 (B15)	05:39		06:41	07:27 (B18)	07:42		07:48	08:32 (B11)	08:41
	21:59	24	05:52 (B15)	21:01		19:42	19:00 (B22)	18:22		16:11	08:58 (B11)	15:38
14	04:45		05:29 (B15)	05:41		06:43	07:28 (B18)	07:44		07:51	08:33 (B11)	08:42
	21:58	22	05:51 (B15)	20:59		19:39	19:01 (B22)	18:19		16:09	08:57 (B11)	15:38
15	04:46		05:29 (B15)	05:43		06:45	07:29 (B18)	07:46		07:53	08:34 (B11)	08:43
	21:56	20	05:49 (B15)	20:57		19:37	19:01 (B22)	18:17		16:07	09:20 (B12)	15:38
16	04:48		05:31 (B15)	05:45		06:47	07:30 (B18)	07:48		07:55	08:36 (B11)	08:44
	21:55	18	05:49 (B15)	20:54		19:34	19:01 (B22)	18:14		16:06	09:23 (B12)	15:38
17	04:49		05:33 (B15)	05:47		06:49	07:31 (B18)	07:50		07:57	08:37 (B11)	08:45
	21:54	14	05:47 (B15)	20:52		19:31	19:00 (B22)	18:12		16:04	09:25 (B12)	15:38
18	04:51		05:36 (B15)	05:49		06:51	07:32 (B18)	07:52		07:59	08:39 (B11)	08:46
	21:52	9	05:45 (B15)	20:49		19:28	18:58 (B22)	18:09		16:02	09:26 (B12)	15:38
19	04:52			05:51		06:53	07:35 (B18)	07:54		08:01	08:43 (B11)	08:47
	21:51			20:47		19:26	18:55 (B22)	18:07		16:01	14:43 (B25)	15:38
20	04:54			05:53		06:55	18:40 (B22)	07:56		08:03	09:08 (B12)	08:48
	21:49			20:44		19:23	18:52 (B22)	18:04		15:59	14:46 (B25)	15:38
21	04:56			05:55		06:57	18:41 (B22)	07:59		08:05	09:07 (B12)	08:48
	21:48			20:42		19:20	18:50 (B22)	18:02		15:57	14:47 (B25)	15:39
22	04:57			05:57	07:46 (B18)	06:59	18:42 (B22)	08:01		08:07	09:07 (B12)	08:49
	21:46			20:39	11	07:57 (B18)	18:47 (B22)	17:59		15:56	14:48 (B25)	15:39
23	04:59			05:59	07:43 (B18)	07:01		08:03		08:09	09:08 (B12)	08:49
	21:44			20:37	18	08:01 (B18)		17:57		15:55	14:50 (B25)	15:40
24	05:01			06:01	07:40 (B18)	07:03		08:05		08:11	09:07 (B12)	08:50
	21:43			20:34	23	08:03 (B18)		17:54		15:53	14:51 (B25)	15:40
25	05:03			06:03	07:37 (B18)	07:05		07:07		08:13	09:07 (B12)	08:50
	21:41			20:32	27	08:04 (B18)		16:52	8	08:48 (B11)	14:52 (B25)	15:41
26	05:04			06:05	07:35 (B18)	07:07		07:09		08:37 (B11)	09:07 (B12)	08:50
	21:39			20:29	31	08:06 (B18)		16:50	15	08:52 (B11)	14:52 (B25)	15:42
27	05:06			06:07	07:10 (B23)	07:09		07:12		08:34 (B11)	09:08 (B12)	08:51
	21:37			20:27	36	08:07 (B18)		16:47	20	08:54 (B11)	14:53 (B25)	15:43
28	05:08			06:09	07:05 (B23)	07:11		07:14		08:32 (B11)	08:19	09:08 (B12)
	21:35			20:24	47	08:08 (B18)		16:45	23	08:55 (B11)	14:58 (B25)	15:44
29	05:10			06:11	07:03 (B23)	07:13		07:16		08:32 (B11)	08:20	09:09 (B12)
	21:34			20:22	54	08:09 (B18)		16:43	25	08:57 (B11)	14:57 (B25)	15:44
30	05:12			06:13	07:02 (B23)	07:15		07:18		08:30 (B11)	08:22	09:10 (B12)
	21:32			20:19	56	08:09 (B18)		16:40	27	08:57 (B11)	14:56 (B25)	15:45
31	05:14			06:15	07:00 (B23)	18:56		07:20		08:29 (B11)		08:51
	21:30			20:16	60	08:10 (B18)		16:38	29	08:58 (B11)		15:47
Potential sun hours	529			469		385		324		247		216
Total, worst case	467			363		1098		147		1012		863
Sun reduction	0.49			0.50		0.43		0.26		0.08		0.07
Oper. time red.	0.98			0.98		0.98		0.98		0.98		0.98
Wind dir. red.	0.67			0.65		0.65		0.59		0.61		0.64
Total reduction	0.32			0.31		0.27		0.15		0.05		0.04
Total, real	148			113		294		21		49		37

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:34 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:10	04:29 22:04	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	08:51 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 17:48	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
1	08:51	09:45 (B14)	08:15	08:55 (B24)	07:11	06:49							05:33		04:36			
	15:48	24 10:09 (B14)	16:45	62 10:26 (B14)	17:48	19:53							20:55		21:53			
2	08:50	09:46 (B14)	08:13	08:56 (B24)	07:08	06:46							05:30		04:35			
	15:49	25 10:11 (B14)	16:48	60 10:26 (B14)	17:50	19:55							20:57		21:54			
3	08:50	09:45 (B14)	08:11	08:56 (B24)	07:06	06:43			07:13 (B22)	05:28	04:34							
	15:51	26 10:11 (B14)	16:50	59 10:26 (B14)	17:52	19:57		11	07:24 (B22)	21:00	21:55							
4	08:50	09:45 (B14)	08:09	08:57 (B24)	07:03	06:41			07:09 (B22)	05:26	04:33							
	15:52	27 10:12 (B14)	16:52	56 10:25 (B14)	17:54	19:59		18	07:27 (B22)	21:02	21:57							
5	08:49	09:46 (B14)	08:07	08:58 (B24)	07:01	06:38			07:06 (B22)	05:23	04:32							
	15:53	28 10:14 (B14)	16:54	53 10:25 (B14)	17:56	20:01		22	07:28 (B22)	21:04	21:58							
6	08:49	09:45 (B14)	08:05	08:58 (B24)	06:58	06:35			07:05 (B22)	05:21	04:31							
	15:55	30 10:15 (B14)	16:56	49 10:23 (B14)	17:58	20:03		25	07:30 (B22)	21:06	21:59							
7	08:48	09:45 (B14)	08:03	09:00 (B24)	06:55	06:33			07:03 (B22)	05:19	04:30							
	15:56	30 10:15 (B14)	16:59	44 10:22 (B14)	18:01	20:05		28	07:31 (B22)	21:08	22:00							
8	08:48	09:45 (B14)	08:01	09:02 (B24)	06:53	06:30			07:02 (B22)	05:17	04:29							
	15:58	31 10:16 (B14)	17:01	37 10:20 (B14)	18:03	20:08		30	07:32 (B22)	21:10	22:01							
9	08:47	09:45 (B14)	07:58	09:04 (B24)	06:50	06:28			07:01 (B22)	05:15	04:29							
	16:00	32 10:17 (B14)	17:03	26 10:17 (B14)	18:05	20:10		31	07:32 (B22)	21:12	22:02							
10	08:46	09:45 (B14)	07:56	10:02 (B14)	06:47	06:25			07:00 (B22)	05:13	04:28							
	16:01	33 10:18 (B14)	17:05	12 10:14 (B14)	18:07	20:12		32	07:32 (B22)	21:14	22:03							
11	08:45	09:45 (B14)	07:54		06:45	06:22			06:59 (B22)	05:11	04:27							
	16:03	34 10:19 (B14)	17:08		18:09	20:14		33	07:32 (B22)	21:16	22:04							
12	08:44	09:44 (B14)	07:52		06:42	06:20			06:58 (B22)	05:09	04:27							
	16:05	35 10:19 (B14)	17:10		18:11	20:16		34	07:32 (B22)	21:18	22:05							
13	08:43	09:44 (B14)	07:50		06:40	06:17			06:59 (B22)	05:07	04:26							
	16:06	36 10:20 (B14)	17:12		18:13	20:18		33	07:32 (B22)	21:20	22:06							
14	08:42	09:45 (B14)	07:47		06:37	06:15			06:58 (B22)	05:05	04:26							
	16:08	36 10:21 (B14)	17:14		18:15	20:20		34	07:32 (B22)	21:22	22:07							
15	08:41	09:44 (B14)	07:45		06:34	06:12			06:58 (B22)	05:03	04:26							
	16:10	38 10:22 (B14)	17:17		18:18	20:22		34	07:32 (B22)	21:24	22:07							
16	08:40	09:44 (B14)	07:43		06:32	06:09			06:58 (B22)	05:01	04:26							
	16:12	39 10:23 (B14)	17:19		18:20	20:24		33	07:31 (B22)	21:25	22:08							
17	08:39	09:44 (B14)	07:40		06:29	06:07			06:58 (B22)	04:59	04:25							
	16:14	39 10:23 (B14)	17:21		18:22	20:26		32	07:30 (B22)	21:27	22:08							
18	08:37	09:45 (B14)	07:38		06:26	06:04			06:58 (B22)	04:57	04:25							
	16:16	39 10:24 (B14)	17:23		18:24	20:28		31	07:29 (B22)	21:29	22:09							
19	08:36	09:44 (B14)	07:36		06:24	06:02			06:59 (B22)	04:55	04:25							
	16:18	40 10:24 (B14)	17:26		18:26	20:30		30	07:29 (B22)	21:31	22:09							
20	08:35	09:45 (B14)	07:33		06:21	05:59			06:59 (B22)	04:53	04:25							
	16:20	41 10:26 (B14)	17:28		18:28	20:33		28	07:27 (B22)	21:33	22:10							
21	08:33	09:07 (B24)	07:31		06:18	05:57			07:00 (B22)	04:52	04:25							
	16:22	44 10:26 (B14)	17:30		18:30	20:35		26	07:26 (B22)	21:35	22:10							
22	08:32	09:05 (B24)	07:28		06:16	05:54			07:01 (B22)	04:50	04:26							
	16:24	48 10:26 (B14)	17:32		18:32	20:37		24	07:25 (B22)	21:37	22:10							
23	08:30	09:03 (B24)	07:26		06:13	05:52			07:02 (B22)	04:48	04:26							
	16:26	51 10:26 (B14)	17:34		18:34	20:39		20	07:22 (B22)	21:38	22:10							
24	08:29	09:02 (B24)	07:23		06:10	05:49			07:04 (B22)	04:47	04:26							
	16:28	54 10:27 (B14)	17:37		18:36	20:41		16	07:20 (B22)	21:40	22:10							
25	08:27	09:00 (B24)	07:21		06:08	05:47			07:07 (B22)	04:45	04:26							
	16:30	57 10:27 (B14)	17:39		18:38	20:43		10	07:17 (B22)	21:42	22:10							
26	08:26	08:58 (B24)	07:18		06:05	05:44				04:44	04:27							
	16:32	61 10:28 (B14)	17:41		18:41	20:45				21:43	22:10							
27	08:24	08:56 (B24)	07:16		06:02	05:42				04:42	04:27							
	16:34	64 10:28 (B14)	17:43		18:43	20:47				21:45	22:10							
28	08:22	08:56 (B24)	07:13		05:59	05:40				04:41	04:28							
	16:37	63 10:28 (B14)	17:45		18:45	20:49				21:47	22:10							
29	08:20	08:56 (B24)			06:57	05:37				04:40	04:29							
	16:39	64 10:28 (B14)			19:47	20:51				21:48	22:10							
30	08:18	08:56 (B24)			06:54	05:35				04:38	04:29							
	16:41	63 10:28 (B14)			19:49	20:53				21:50	22:09							
31	08:17	08:56 (B24)			06:51					04:37								
	16:43	64 10:28 (B14)			19:51					21:51								
Potential sun hours	235		266		366	426				508	529							
Total, worst case	1296		458			615												
Sun reduction	0.13		0.20			0.50												
Oper. time red.	0.98		0.98			0.98												
Wind dir. red.	0.61		0.60			0.66												
Total reduction	0.08		0.12			0.31												
Total, real	100		53			193												

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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	06:58 (B22) 18:54	07:17 16:36	09:31 (B14) 15:45
2	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:33 (B24) 15:44
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:31 (B24) 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 (B24) 15:42
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:28 (B24) 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:28 (B24) 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:27 (B24) 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:27 (B24) 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:27 (B24) 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:26 (B24) 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:27 (B24) 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:27 (B24) 15:38
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:28 (B24) 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:28 (B24) 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:28 (B24) 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:31 (B24) 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:33 (B24) 15:38
18	04:51 21:52	05:49 20:50	07:12 (B22) 19:29	07:52 18:09	16:02 16:02	08:36 (B24) 15:38
19	04:53 21:51	05:51 20:47	07:09 (B22) 19:26	07:55 18:07	16:01 16:01	08:38 (B24) 15:38
20	04:54 21:49	05:53 20:45	07:07 (B22) 19:23	07:57 18:04	16:03 15:59	08:40 (B24) 15:39
21	04:56 21:48	05:55 20:42	07:06 (B22) 19:21	07:59 18:02	16:05 15:58	08:42 (B24) 15:39
22	04:58 21:46	05:57 20:40	07:04 (B22) 19:18	08:01 18:00	16:07 15:56	09:21 (B14) 15:40
23	04:59 21:45	05:59 20:37	07:03 (B22) 19:15	08:03 17:57	16:09 15:55	09:21 (B14) 15:40
24	05:01 21:43	06:01 20:35	07:02 (B22) 19:12	08:05 17:55	16:11 15:53	09:22 (B14) 15:41
25	05:03 21:41	06:03 20:32	07:02 (B22) 19:10	08:13 17:52	16:13 15:52	09:22 (B14) 15:41
26	05:05 21:39	06:05 20:30	07:01 (B22) 19:07	08:15 17:50	16:15 15:51	09:22 (B14) 15:42
27	05:06 21:38	06:07 20:27	06:59 (B22) 19:04	08:17 17:48	16:17 15:49	09:24 (B14) 15:43
28	05:08 21:36	06:09 20:24	06:59 (B22) 19:02	08:19 17:46	16:21 15:48	10:02 (B14) 15:44
29	05:10 21:34	06:11 20:22	06:59 (B22) 18:59	08:21 17:43	16:23 15:47	09:25 (B14) 15:45
30	05:12 21:32	06:13 20:19	06:58 (B22) 18:56	08:22 17:41	16:25 15:46	09:26 (B14) 15:46
31	05:14 21:30	06:15 20:17	06:58 (B22) 18:54	08:24 17:39	16:27 15:44	10:01 (B14) 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		391	232		1441	714
Sun reduction		0.50	0.43		0.08	0.07
Oper. time red.		0.98	0.98		0.98	0.98
Wind dir. red.		0.66	0.66		0.61	0.61
Total reduction		0.31	0.27		0.05	0.04
Total, real		122	62		68	29

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	07:37 (B14) 07:57 (B24)	06:49 19:53	05:33 20:55
2	08:50 15:50	08:13 16:48	07:08 17:50	07:34 (B14) 07:56 (B24)	06:46 19:55	12 06:30 (B22) 8 06:28 (B22)
3	08:50 15:51	08:11 16:50	07:06 17:52	07:32 (B14) 07:56 (B24)	06:43 19:57	05:28 21:00
4	08:50 15:52	08:09 16:52	07:03 17:54	07:29 (B14) 07:55 (B14)	06:41 19:59	05:26 21:02
5	08:49 15:54	08:07 16:54	07:01 17:56	07:27 (B14) 07:55 (B14)	06:38 20:01	05:24 21:04
6	08:49 15:55	08:05 16:56	06:58 17:58	07:27 (B14) 07:56 (B14)	06:36 20:03	05:21 21:06
7	08:48 15:56	08:03 16:59	06:55 18:01	07:26 (B14) 07:56 (B14)	06:33 20:06	05:19 21:08
8	08:48 15:58	08:01 17:01	06:53 18:03	07:25 (B14) 07:56 (B14)	06:30 20:08	05:17 21:10
9	08:47 16:00	07:58 17:03	06:50 18:05	07:25 (B14) 07:57 (B14)	06:28 20:10	05:15 21:12
10	08:46 16:01	07:56 17:05	06:48 18:07	07:25 (B14) 07:56 (B14)	06:25 20:12	05:13 21:14
11	08:45 16:03	07:54 17:08	06:45 18:09	07:24 (B14) 07:56 (B14)	06:22 20:14	05:11 21:16
12	08:44 16:05	07:52 17:10	06:42 18:11	07:25 (B14) 07:56 (B14)	06:20 20:16	05:09 21:18
13	08:43 16:06	07:50 17:12	06:40 18:13	07:25 (B14) 07:55 (B14)	06:17 20:18	05:07 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	07:25 (B14) 07:53 (B14)	06:15 20:20	05:05 21:22
15	08:41 16:10	07:45 17:17	06:34 18:18	07:26 (B14) 07:53 (B14)	06:12 20:22	05:03 21:24
16	08:40 16:12	07:43 17:19	06:32 18:20	07:27 (B14) 07:51 (B14)	06:09 20:24	05:01 21:25
17	08:39 16:14	07:40 17:21	06:29 18:22	07:27 (B14) 07:49 (B14)	06:07 20:26	04:59 21:27
18	08:38 16:16	07:38 17:23	06:26 18:24	07:29 (B14) 07:46 (B14)	06:04 20:28	04:57 21:29
19	08:36 16:18	07:36 17:26	06:24 18:26	07:32 (B14) 07:44 (B14)	06:02 20:31	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	06:26 (B22) 06:36 (B22)	04:53 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:23 (B22) 06:36 (B22)	04:52 21:35
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:21 (B22) 06:36 (B22)	04:50 21:37
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:18 (B22) 06:36 (B22)	04:48 21:38
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:16 (B22) 06:36 (B22)	04:47 21:40
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	06:15 (B22) 06:36 (B22)	04:45 21:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	06:14 (B22) 06:35 (B22)	04:44 21:43
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:15 (B22) 06:35 (B22)	04:42 21:45
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	06:15 (B22) 06:34 (B22)	04:41 21:47
29	08:20 16:39		05:57 19:47	05:37 20:51	06:16 (B22) 06:34 (B22)	04:40 21:48
30	08:19 16:41		05:54 19:49	05:35 20:53	06:17 (B22) 06:33 (B22)	04:38 21:50
31	08:17 16:43		05:51 19:51			04:37 21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		59	496	200	20	
Sun reduction		0.20	0.41	0.50	0.57	
Oper. time red.		0.98	0.98	0.98	0.98	
Wind dir. red.		0.62	0.62	0.65	0.65	
Total reduction		0.12	0.25	0.32	0.36	
Total, real		7	124	64	7	

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

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

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	08:04 (B14)	07:23
	22:09	21:28	20:14	18:54	31 08:35 (B14)	16:36
2	04:31	05:18	06:19	07:19	08:03 (B14)	07:25
	22:09	21:26	20:11	18:51	32 08:35 (B14)	16:34
3	04:32	05:20	06:21	07:21	08:03 (B14)	07:27
	22:08	21:24	20:09	18:48	31 08:34 (B14)	16:32
4	04:33	05:22	06:23	07:23	08:02 (B14)	07:29
	22:07	21:22	20:06	18:46	32 08:34 (B14)	16:30
5	04:34	05:23	06:25	07:25	08:02 (B14)	07:31
	22:07	21:20	20:03	18:43	31 08:33 (B14)	16:27
6	04:35	05:25	06:27	07:28	08:02 (B14)	07:33
	22:06	21:17	20:01	18:40	31 08:33 (B14)	16:25
7	04:36	05:27	06:29	07:30	08:02 (B14)	07:36
	22:05	21:15	19:58	18:38	30 08:32 (B14)	16:23
8	04:37	05:29	06:31	07:32	08:02 (B14)	07:38
	22:04	21:13	19:56	18:35	29 08:31 (B14)	16:21
9	04:38	05:31	06:33	07:34	08:04 (B14)	07:40
	22:03	21:11	19:53	18:33	27 08:31 (B14)	16:19
10	04:40	05:33	06:35	07:36	08:05 (B14)	07:42
	22:02	21:08	19:50	18:30	24 08:29 (B14)	16:17
11	04:41	05:35	06:37	07:38	08:07 (B14)	07:44
	22:01	21:06	19:47	18:27	23 08:30 (B24)	16:15
12	04:42	05:37	06:39	07:40	08:09 (B14)	07:46
	22:00	21:04	19:45	18:25	21 08:30 (B24)	16:13
13	04:44	05:39	06:41	07:42	08:11 (B14)	07:49
	21:59	21:02	19:42	18:22	19 08:30 (B24)	16:11
14	04:45	05:41	06:43	07:44	08:13 (B24)	07:51
	21:58	20:59	19:39	18:20	16 08:29 (B24)	16:10
15	04:46	05:43	06:45	07:46	08:16 (B24)	07:53
	21:57	20:57	19:37	18:17	14 08:30 (B24)	16:08
16	04:48	05:45	06:47	07:48	08:18 (B24)	07:55
	21:55	20:54	19:34	18:15	11 08:29 (B24)	16:06
17	04:49	05:47	06:49	07:50	08:20 (B24)	07:57
	21:54	20:52	19:31	18:12	7 08:27 (B24)	16:04
18	04:51	05:49	06:51	07:52	08:22 (B24)	07:59
	21:52	20:50	19:29	18:09	4 08:26 (B24)	16:03
19	04:53	05:51	06:53	07:55	08:01	08:47
	21:51	20:47	19:26	18:07	16:01	15:38
20	04:54	05:53	06:55	07:57	08:03	08:48
	21:49	20:45	19:23	18:04	15:59	15:39
21	04:56	05:55	06:57	07:59	08:05	08:48
	21:48	20:42	19:21	18:02	15:58	15:39
22	04:58	05:57	06:59	08:01	08:07	08:49
	21:46	20:40	19:18	18:00	15:56	15:40
23	04:59	05:59	07:01	08:03	08:09	08:50
	21:45	20:37	19:15	17:57	15:55	15:40
24	05:01	06:01	07:03	08:17 (B14)	08:05	08:50
	21:43	20:35	19:12	9 08:26 (B14)	17:55	15:53
25	05:03	06:03	07:05	08:13 (B14)	07:07	08:13
	21:41	20:32	19:10	16 08:29 (B14)	16:52	15:52
26	05:05	06:05	07:07	08:11 (B14)	07:10	08:15
	21:39	20:30	19:07	20 08:31 (B14)	16:50	15:51
27	05:06	06:07	07:09	08:09 (B14)	07:12	08:17
	21:38	20:27	19:04	24 08:33 (B14)	16:48	15:50
28	05:08	06:09	07:11	08:07 (B14)	07:14	08:19
	21:36	20:24	19:02	26 08:33 (B14)	16:45	15:48
29	05:10	06:11	07:13	08:06 (B14)	07:16	08:21
	21:34	20:22	18:59	28 08:34 (B14)	16:43	15:47
30	05:12	06:13	07:15	08:05 (B14)	07:18	08:22
	21:32	20:19	18:56	29 08:34 (B14)	16:41	15:46
31	05:14	06:15			07:20	08:51
	21:30	20:17			16:38	15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		220	152		413	
Sun reduction		0.50	0.43		0.26	
Oper. time red.		0.98	0.98		0.98	
Wind dir. red.		0.65	0.62		0.62	
Total reduction		0.32	0.26		0.16	
Total, real		70	39		65	

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:37 (B14)	06:49	05:33
	15:48	16:45	17:48	22 07:59 (B14)	19:53	20:55
2	08:50	08:13	07:08	07:34 (B14)	06:46	05:30
	15:50	16:48	17:50	25 07:59 (B14)	19:55	20:58
3	08:50	08:11	07:06	07:34 (B14)	06:44	05:28
	15:51	16:50	17:52	26 08:00 (B14)	19:57	21:00
4	08:50	08:09	07:03	07:33 (B14)	06:41	05:26
	15:52	16:52	17:54	27 08:00 (B14)	19:59	21:02
5	08:49	08:07	07:01	07:32 (B14)	06:38	05:24
	15:54	16:54	17:56	28 08:00 (B14)	20:01	21:04
6	08:49	08:05	06:58	07:33 (B14)	06:36	05:21
	15:55	16:57	17:58	27 08:00 (B14)	20:03	21:06
7	08:48	08:03	06:55	07:32 (B14)	06:33	05:19
	15:56	16:59	18:01	27 07:59 (B14)	20:06	21:08
8	08:48	08:01	06:53	07:32 (B14)	06:30	05:17
	15:58	17:01	18:03	26 07:58 (B14)	20:08	21:10
9	08:47	07:58	06:50	07:33 (B14)	06:28	05:15
	16:00	17:03	18:05	25 07:58 (B14)	20:10	21:12
10	08:46	07:56	06:48	07:34 (B14)	06:25	05:13
	16:01	17:05	18:07	22 07:56 (B14)	20:12	21:14
11	08:45	07:54	06:45	07:34 (B14)	06:22	05:11
	16:03	17:08	18:09	21 07:55 (B14)	20:14	21:16
12	08:44	07:52	06:42	07:37 (B14)	06:20	05:09
	16:05	17:10	18:11	16 07:53 (B14)	20:16	21:18
13	08:43	07:50	06:40	07:39 (B14)	06:17	05:07
	16:06	17:12	18:13	11 07:50 (B14)	20:18	21:20
14	08:42	07:47	06:37	06:15	06:45 (B22)	05:09
	16:08	17:14	18:15	20:20	11 06:51 (B22)	21:22
15	08:41	07:45	06:34	06:12	06:38 (B22)	05:03
	16:10	17:17	18:18	20:22	13 06:51 (B22)	21:24
16	08:40	07:43	06:32	06:09	06:35 (B22)	05:01
	16:12	17:19	18:20	20:24	16 06:51 (B22)	21:26
17	08:39	07:40	06:29	06:07	06:33 (B22)	04:59
	16:14	17:21	18:22	20:26	18 06:51 (B22)	21:27
18	08:38	07:38	06:26	06:04	06:31 (B22)	04:57
	16:16	17:23	18:24	20:28	19 06:50 (B22)	21:29
19	08:36	07:36	06:24	06:02	06:31 (B22)	04:55
	16:18	17:26	18:26	20:31	19 06:50 (B22)	21:31
20	08:35	07:33	06:21	05:59	06:32 (B22)	04:53
	16:20	17:28	18:28	20:33	17 06:49 (B22)	21:33
21	08:33	07:31	06:18	05:57	06:32 (B22)	04:52
	16:22	17:30	18:30	20:35	16 06:48 (B22)	21:35
22	08:32	07:28	06:16	05:54	06:33 (B22)	04:50
	16:24	17:32	18:32	20:37	13 06:46 (B22)	21:37
23	08:30	07:26	06:13	05:52	06:35 (B22)	04:48
	16:26	17:34	18:34	20:39	9 06:44 (B22)	21:38
24	08:29	07:23	06:10	05:49		04:47
	16:28	17:37	18:36	20:41		21:40
25	08:27	07:21	07:48 (B14)	06:08		04:45
	16:30	17:39	6 07:54 (B14)	18:39		21:42
26	08:26	07:18	07:45 (B14)	06:05		04:44
	16:32	17:41	11 07:56 (B14)	18:41		21:43
27	08:24	07:16	07:42 (B14)	06:02		04:42
	16:34	17:43	15 07:57 (B14)	18:43		21:45
28	08:22	07:13	07:40 (B14)	06:00		04:41
	16:37	17:45	19 07:59 (B14)	18:45		21:47
29	08:20			06:57		04:40
	16:39			19:47		21:48
30	08:19			06:54		04:38
	16:41			19:49		21:50
31	08:17			06:52		04:37
	16:43			19:51		21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		51	303	163		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.62	0.62	0.65		
Total reduction		0.12	0.25	0.32		
Total, real		6	76	52		

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

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

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	08:16 (B14) 16:36 (B14)	07:23 15:45
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	08:14 (B14) 16:34 (B14)	07:25 15:44
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	08:12 (B14) 16:32 (B14)	07:27 15:43
4	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	08:11 (B14) 16:30 (B14)	07:29 15:43
5	04:34 22:07	05:24 21:20	06:25 20:04	07:25 18:43	08:10 (B14) 16:27 (B14)	07:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:09 (B14) 16:25 (B14)	07:33 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:08 (B14) 16:23 (B14)	07:36 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:07 (B14) 16:21 (B14)	07:38 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:08 (B14) 16:19 (B14)	07:40 15:39
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:08 (B14) 16:17 (B14)	07:42 15:39
11	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	08:08 (B14) 16:15 (B14)	07:44 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:09 (B14) 16:13 (B14)	07:46 15:38
13	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:11 (B14) 16:11 (B14)	07:49 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:13 (B14) 16:10 (B14)	07:51 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:16 (B14) 16:08 (B14)	07:53 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:18 (B14) 16:06 (B14)	07:55 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:20 (B14) 16:04 (B14)	07:57 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	08:24 (B14) 16:03 (B14)	07:59 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:51 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:48	08:17 15:50	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:46	08:19 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	08:21 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:41	08:22 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17	07:17 18:53	08:19 17:38	08:24 15:45	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		162	8		355	
Sun reduction		0.50	0.43		0.26	
Oper. time red.		0.98	0.98		0.98	
Wind dir. red.		0.65	0.62		0.62	
Total reduction		0.32	0.26		0.16	
Total, real		51	2		56	

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	23	07:57 (B14) 08:20 (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	24	07:56 (B14) 08:20 (B14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	6	07:32 (B14) 07:38 (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	07:55 (B14) 08:20 (B14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	11	07:29 (B14) 07:40 (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	07:55 (B14) 08:20 (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	07:55 (B14) 08:19 (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	22	07:56 (B14) 08:18 (B14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	21	07:21 (B14) 07:42 (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	19	07:58 (B14) 08:17 (B14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	24	07:18 (B14) 07:42 (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	07:18 (B14) 07:43 (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	13	08:03 (B14) 08:16 (B14)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	25	07:17 (B14) 07:42 (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	9	08:05 (B14) 08:14 (B14)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	24	07:17 (B14) 07:41 (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	4	08:07 (B14) 08:11 (B14)	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	23	07:18 (B14) 07:41 (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	22	07:18 (B14) 07:40 (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	21	07:18 (B14) 07:39 (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	18	07:20 (B14) 07:38 (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	14	07:21 (B14) 07:35 (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	9	07:23 (B14) 07:32 (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		06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	05:51 20:47	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	07:57 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	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	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	07:59 18:00	07:59 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	07:59 18:03	07:59 18:03			08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	07:59 18:05	07:59 18:05			08:11 15:53	08:50 15:41
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	07:59 18:07	07:59 18:07			08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:59 18:09	07:59 18:09	5	08:08 (B14) 08:13 (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	07:59 18:04	07:59 18:04	12	08:04 (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	07:59 18:01	07:59 18:01	17	08:01 (B14) 08:18 (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	07:59 18:19	07:59 18:19	20	07:59 (B14) 08:19 (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	07:59 18:22	07:59 18:22	22	07:58 (B14) 08:20 (B14)	07:18 16:41	08:51 15:46
31	08:17 16:43		06:52 19:51		05:32 21:51	04:37 21:51	04:29 22:09	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	529	529	469	385		324		247	216	
Total, worst case				275						76		204				
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.98						0.98		0.98				
Wind dir. red.				0.62						0.62		0.62				
Total reduction				0.25						0.26		0.16				
Total, real				69						20		32				

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:41 (B14)	06:49	05:33
	15:48	16:45	17:48	27 08:08 (B14)	19:53	20:55
2	08:51	08:13	07:08	07:41 (B14)	06:46	05:30
	15:50	16:48	17:50	26 08:07 (B14)	19:55	20:58
3	08:50	08:11	07:06	07:42 (B14)	06:44	05:28
	15:51	16:50	17:52	26 08:08 (B14)	19:57	21:00
4	08:50	08:09	07:03	07:41 (B14)	06:41	05:26
	15:52	16:52	17:54	26 08:07 (B14)	19:59	21:02
5	08:49	08:07	07:01	07:41 (B14)	06:38	05:24
	15:54	16:54	17:56	25 08:06 (B14)	20:01	21:04
6	08:49	08:05	06:58	07:43 (B14)	06:36	05:21
	15:55	16:57	17:58	22 08:05 (B14)	20:03	21:06
7	08:48	08:03	06:55	07:43 (B14)	06:33	05:19
	15:56	16:59	18:01	20 08:03 (B14)	20:06	21:08
8	08:48	08:01	06:53	07:44 (B14)	06:30	05:17
	15:58	17:01	18:03	17 08:01 (B14)	20:08	21:10
9	08:47	07:58	06:50	07:47 (B14)	06:28	05:15
	16:00	17:03	18:05	12 07:59 (B14)	20:10	21:12
10	08:46	07:56	06:48	06:25	6 06:50 (B22)	05:13
	16:01	17:05	18:07	20:12	9 06:59 (B22)	21:14
11	08:45	07:54	06:45	06:22	06:48 (B22)	05:11
	16:03	17:08	18:09	20:14	12 07:00 (B22)	21:16
12	08:44	07:52	06:42	06:20	06:45 (B22)	05:09
	16:05	17:10	18:11	20:16	14 06:59 (B22)	21:18
13	08:43	07:50	06:40	06:17	06:43 (B22)	05:07
	16:06	17:12	18:13	20:18	17 07:00 (B22)	21:20
14	08:42	07:47	06:37	06:15	06:40 (B22)	05:05
	16:08	17:14	18:15	20:20	19 06:59 (B22)	21:22
15	08:41	07:45	06:34	06:12	06:40 (B22)	05:03
	16:10	17:17	18:18	20:22	19 06:59 (B22)	21:24
16	08:40	07:43	06:32	06:09	06:40 (B22)	05:01
	16:12	17:19	18:20	20:24	18 06:58 (B22)	21:26
17	08:39	07:40	06:29	06:07	06:41 (B22)	04:59
	16:14	17:21	18:22	20:26	16 06:57 (B22)	21:27
18	08:38	07:38	06:26	06:04	06:41 (B22)	04:57
	16:16	17:23	18:24	20:28	14 06:55 (B22)	21:29
19	08:36	07:36	06:24	06:02	06:43 (B22)	04:55
	16:18	17:26	18:26	20:31	10 06:53 (B22)	21:31
20	08:35	07:33	06:21	05:59		04:53
	16:20	17:28	18:28	20:33		21:33
21	08:33	07:31	07:58 (B14)	06:18	05:57	04:52
	16:22	17:30	1 07:59 (B14)	18:30	20:35	21:35
22	08:32	07:28	07:55 (B14)	06:16	05:54	04:50
	16:24	17:32	7 08:02 (B14)	18:32	20:37	21:37
23	08:30	07:26	07:53 (B14)	06:13	05:52	04:48
	16:26	17:34	12 08:05 (B14)	18:34	20:39	21:38
24	08:29	07:23	07:50 (B14)	06:10	05:49	04:47
	16:28	17:37	16 08:06 (B14)	18:36	20:41	21:40
25	08:27	07:21	07:48 (B14)	06:08	05:47	04:45
	16:30	17:39	19 08:07 (B14)	18:39	20:43	21:42
26	08:26	07:18	07:45 (B14)	06:05	05:44	04:44
	16:32	17:41	22 08:07 (B14)	18:41	20:45	21:43
27	08:24	07:16	07:42 (B14)	06:02	05:42	04:42
	16:34	17:43	25 08:07 (B14)	18:43	20:47	21:45
28	08:22	07:13	07:42 (B14)	06:00	05:40	04:41
	16:37	17:45	26 08:08 (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		06:52			04:37
	16:43		19:51			21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		128	201		156	
Sun reduction		0.20	0.41		0.50	
Oper. time red.		0.98	0.98		0.98	
Wind dir. red.		0.63	0.63		0.66	
Total reduction		0.12	0.25		0.32	
Total, real		16	50		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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:47 (B22)	07:17	07:23
	22:09	21:28	20:14	12 06:59 (B22)	18:54	16:36
2	04:31	05:18	06:19	06:49 (B22)	07:19	07:25
	22:09	21:26	20:11	9 06:58 (B22)	18:51	16:34
3	04:32	05:20	06:21	06:51 (B22)	07:21	07:27
	22:08	21:24	20:09	6 06:57 (B22)	18:48	16:32
4	04:33	05:22	06:23	06:53 (B22)	07:23	08:26 (B14)
	22:07	21:22	20:06	2 06:55 (B22)	18:46	9 08:35 (B14)
5	04:34	05:24	06:25	07:25	08:22 (B14)	16:30
	22:07	21:20	20:04	15 18:43	08:37 (B14)	16:27
6	04:35	05:25	06:27	07:28	08:20 (B14)	16:27
	22:06	21:17	20:01	19 18:40	08:39 (B14)	16:25
7	04:36	05:27	06:29	07:30	08:18 (B14)	16:25
	22:05	21:15	19:58	22 18:38	08:40 (B14)	16:23
8	04:37	05:29	06:31	07:32	08:17 (B14)	16:23
	22:04	21:13	19:56	23 18:35	08:40 (B14)	16:21
9	04:38	05:31	06:33	07:34	08:17 (B14)	16:21
	22:03	21:11	19:53	25 18:33	08:42 (B14)	16:19
10	04:40	05:33	06:35	07:36	08:16 (B14)	16:19
	22:02	21:08	19:50	26 18:30	08:42 (B14)	16:17
11	04:41	05:35	06:37	07:38	08:15 (B14)	16:17
	22:01	21:06	19:48	27 18:27	08:42 (B14)	16:15
12	04:42	05:37	06:39	07:40	08:15 (B14)	16:15
	22:00	21:04	19:45	26 18:25	08:41 (B14)	16:13
13	04:44	05:39	06:41	07:42	08:14 (B14)	16:13
	21:59	21:02	19:42	27 18:22	08:41 (B14)	16:11
14	04:45	05:41	06:43	07:44	08:14 (B14)	16:11
	21:58	20:59	19:39	26 18:20	08:40 (B14)	16:10
15	04:46	05:43	06:45	07:46	08:16 (B14)	16:10
	21:57	20:57	19:37	24 18:17	08:40 (B14)	16:08
16	04:48	05:45	06:47	07:48	08:18 (B14)	16:08
	21:55	20:54	19:34	21 18:15	08:39 (B14)	16:06
17	04:49	05:47	06:49	07:50	08:20 (B14)	16:06
	21:54	20:52	19:31	18 18:12	08:38 (B14)	16:04
18	04:51	05:49	06:51	07:53	08:22 (B14)	16:04
	21:52	20:50	19:29	14 18:09	08:36 (B14)	16:03
19	04:53	05:51	06:53	07:55	08:25 (B14)	16:03
	21:51	20:47	19:26	10 18:07	08:35 (B14)	16:01
20	04:54	05:53	06:55	07:57	08:27 (B14)	16:01
	21:49	20:45	19:23	6 18:04	08:33 (B14)	15:59
21	04:56	05:55	06:57	07:59		15:59
	21:48	20:42	19:21	18:02		15:58
22	04:58	05:57	06:59	08:01		15:58
	21:46	20:40	19:18	18:00		15:56
23	04:59	05:59	06:50 (B22)	08:03		15:55
	21:45	20:37	4 06:54 (B22)	17:57		15:55
24	05:01	06:01	06:47 (B22)	08:05		15:55
	21:43	20:35	10 06:57 (B22)	17:55		15:53
25	05:03	06:03	06:45 (B22)	07:07		15:53
	21:41	20:32	14 06:59 (B22)	16:52		15:52
26	05:05	06:05	06:44 (B22)	07:10		15:52
	21:39	20:30	16 07:00 (B22)	16:50		15:51
27	05:06	06:07	06:43 (B22)	07:12		15:51
	21:38	20:27	17 07:00 (B22)	16:48		15:50
28	05:08	06:09	06:41 (B22)	07:14		15:50
	21:36	20:24	19 07:00 (B22)	16:45		15:48
29	05:10	06:11	06:41 (B22)	07:16		15:48
	21:34	20:22	19 07:00 (B22)	16:43		15:47
30	05:12	06:13	06:43 (B22)	07:18		15:47
	21:32	20:19	17 07:00 (B22)	16:41		15:46
31	05:14	06:15	06:45 (B22)	07:20		15:46
	21:30	20:17	14 06:59 (B22)	16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		130	29	338		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.66	0.66	0.63		
Total reduction		0.32	0.27	0.16		
Total, real		41	8	53		

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
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11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
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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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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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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
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3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
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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 05:23/4.0.531

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
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Operational time

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	06:00 (B14) 06:03 (B14)	04:36 21:53	04:30 22:09	05:16 19 05:59 (B14)	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	05:58 (B14) 06:05 (B14)	04:35 21:54	04:31 22:08	05:18 20 06:18 (B14)	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	05:56 (B14) 06:06 (B14)	04:34 21:55	04:32 22:08	05:20 21 06:18 (B14)	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	05:54 (B14) 06:07 (B14)	04:33 21:57	04:33 22:07	05:22 20 06:18 (B14)	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	05:52 (B14) 06:08 (B14)	04:32 21:58	04:34 22:07	05:24 20 06:18 (B14)	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	05:50 (B14) 06:08 (B14)	04:31 21:59	04:35 22:06	05:26 19 06:17 (B14)	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	05:48 (B14) 06:08 (B14)	04:30 22:00	04:36 22:05	05:28 17 06:17 (B14)	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	05:48 (B14) 06:08 (B14)	04:29 22:01	04:37 22:04	05:29 15 06:17 (B14)	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	05:48 (B14) 06:08 (B14)	04:29 22:02	04:38 22:03	05:31 12 06:16 (B14)	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	05:48 (B14) 06:08 (B14)	04:28 22:03	04:40 22:02	05:33 9 06:15 (B14)	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	05:48 (B14) 06:07 (B14)	04:28 22:04	04:41 22:01	05:35 6 06:14 (B14)	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	05:48 (B14) 06:07 (B14)	04:27 22:05	04:42 22:00	05:37 2 06:11 (B14)	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	05:49 (B14) 06:07 (B14)	04:27 22:06	04:44 21:59	05:39 06:41	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	05:50 (B14) 06:06 (B14)	04:26 22:07	04:45 21:58	05:41 20:59	06:43 18:20	07:44 16:10	07:51 15:38	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	05:50 (B14) 06:05 (B14)	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	05:51 (B14) 06:03 (B14)	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	05:53 (B14) 06:02 (B14)	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	05:56 (B14) 05:59 (B14)	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	06:04 (B14) 06:02 (B14)	04:25 22:09	04:53 21:51	05:51 20:47	06:53 18:07	07:55 16:01	08:01 15:39	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	06:11 (B14) 06:09 (B14)	04:25 22:10	04:54 21:49	05:53 20:45	06:55 18:05	07:57 15:59	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:13 (B14) 06:11 (B14)	04:26 22:10	04:56 21:48	05:55 20:42	06:57 18:02	07:59 15:58	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	06:15 (B14) 06:13 (B14)	04:26 22:10	04:58 21:46	05:57 20:40	06:59 18:18	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	06:17 (B14) 06:15 (B14)	04:26 22:10	04:59 21:45	05:59 20:37	07:01 18:15	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	06:19 (B14) 06:17 (B14)	04:26 22:10	05:01 21:43	06:01 20:35	07:03 18:13	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	06:21 (B14) 06:19 (B14)	04:27 22:10	05:03 21:41	06:03 20:32	07:05 18:10	08:05 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	06:23 (B14) 06:11 (B14)	04:27 22:10	05:05 21:39	06:05 20:30	07:07 18:05	08:05 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	06:03 (B14) 06:13 (B14)	04:28 22:10	05:07 21:38	06:07 20:27	07:09 18:04	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	06:02 (B14) 06:15 (B14)	04:28 22:10	05:08 21:36	06:09 20:24	07:11 18:02	07:14 16:45	08:19 15:48	08:51 15:44
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30	08:18 16:41	06:54 17:49	05:35 18:49	04:39 20:53	04:39 21:50	06:00 (B14) 06:16 (B14)	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 17:51	05:52 19:51	04:37 21:51	04:37 21:51	05:59 (B14) 06:17 (B14)	04:30 22:10	05:14 21:30	06:15 20:17	07:15 18:57	07:20 16:38	08:51 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216	
Total, worst case					258			79	179				
Sun reduction					0.57			0.49	0.50				
Oper. time red.					0.98			0.98	0.98				
Wind dir. red.					0.67			0.67	0.67				
Total reduction					0.37			0.32	0.33				
Total, real					96		25	58					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Lejas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (156)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

Shadow receptor: Lejas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (128)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Lidijas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (51)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
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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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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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Total, worst case												
Sun reduction												
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Table layout: For each day in each month the following matrix apply

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Lieknas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (100)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
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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
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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Liepsala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (88)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

January		February		March		April		May		June	
1	08:51	09:32 (B12)	08:15	09:08 (B11)	07:11	06:49	07:14 (B23)	05:32		04:36	05:21 (B15)
	15:48	37 15:05 (B25)	16:45	32 09:40 (B11)	17:47	19:53	59 08:28 (B18)	20:55		21:52	28 05:49 (B15)
2	08:50	09:32 (B12)	08:13	09:08 (B11)	07:08	06:46	07:11 (B23)	05:30		04:35	05:20 (B15)
	15:49	38 15:06 (B25)	16:47	32 09:40 (B11)	17:50	19:55	63 08:28 (B18)	20:57		21:54	30 05:50 (B15)
3	08:50	09:33 (B12)	08:11	09:09 (B11)	07:05	06:43	07:08 (B23)	05:28		04:34	05:20 (B15)
	15:51	39 15:08 (B25)	16:50	31 09:40 (B11)	17:52	19:57	67 08:27 (B18)	20:59		21:55	30 05:50 (B15)
4	08:50	09:33 (B12)	08:09	09:09 (B11)	07:03	06:41	07:07 (B23)	05:26		04:33	05:19 (B15)
	15:52	41 15:09 (B25)	16:52	32 09:41 (B11)	17:54	19:59	68 08:27 (B18)	21:01		21:56	32 05:51 (B15)
5	08:49	09:33 (B12)	08:07	09:09 (B11)	07:00	06:38	07:06 (B23)	05:23		04:32	05:20 (B15)
	15:53	43 15:11 (B25)	16:54	31 09:40 (B11)	17:56	20:01	68 08:26 (B18)	21:03		21:58	32 05:52 (B15)
6	08:49	09:34 (B12)	08:05	09:10 (B11)	06:58	06:35	07:06 (B23)	05:21		04:31	05:19 (B15)
	15:55	43 15:12 (B25)	16:56	30 09:40 (B11)	17:58	20:03	68 08:26 (B18)	21:05		21:59	33 05:52 (B15)
7	08:48	09:34 (B12)	08:02	09:11 (B11)	06:55	06:33	07:05 (B23)	05:19		04:30	05:19 (B15)
	15:56	44 15:12 (B25)	16:58	28 09:39 (B11)	18:00	20:05	68 08:25 (B18)	21:08		22:00	33 05:52 (B15)
8	08:47	09:35 (B12)	08:00	09:12 (B11)	06:53	06:30	07:05 (B23)	05:17		04:29	05:19 (B15)
	15:58	44 15:13 (B25)	17:01	27 09:39 (B11)	18:02	20:07	66 08:24 (B18)	21:10		22:01	34 05:53 (B15)
9	08:47	09:35 (B12)	07:58	09:12 (B11)	06:50	06:27	07:06 (B23)	05:15		04:28	05:19 (B15)
	15:59	44 15:13 (B25)	17:03	26 09:38 (B11)	18:05	20:09	63 08:23 (B18)	21:12		22:02	34 05:53 (B15)
10	08:46	09:35 (B12)	07:56	09:13 (B11)	06:47	06:25	07:05 (B23)	05:12		04:28	05:19 (B15)
	16:01	45 15:14 (B25)	17:05	24 09:37 (B11)	18:07	20:12	62 08:22 (B18)	21:14		22:03	35 05:54 (B15)
11	08:45	09:36 (B12)	07:54	09:14 (B11)	06:45	06:22	07:07 (B23)	05:10		04:27	05:19 (B15)
	16:03	44 15:14 (B25)	17:07	21 09:35 (B11)	18:09	20:14	57 08:21 (B18)	21:16		22:04	35 05:54 (B15)
12	08:44	09:36 (B12)	07:52	09:17 (B11)	06:42	06:20	07:07 (B23)	05:08		04:27	05:19 (B15)
	16:04	44 15:14 (B25)	17:10	16 09:33 (B11)	18:11	20:16	53 08:19 (B18)	21:18		22:05	36 05:55 (B15)
13	08:43	09:36 (B12)	07:49	09:20 (B11)	06:39	06:17	07:09 (B23)	05:06		04:26	05:19 (B15)
	16:06	44 15:14 (B25)	17:12	11 09:31 (B11)	18:13	20:18	46 08:18 (B18)	21:19		22:06	36 05:55 (B15)
14	08:42	09:37 (B12)	07:47		06:37	06:14	07:11 (B23)	05:04		04:26	05:19 (B15)
	16:08	43 15:15 (B25)	17:14		18:15	20:20	38 08:16 (B18)	21:21		22:06	36 05:55 (B15)
15	08:41	09:37 (B12)	07:45		06:34	06:12	07:47 (B18)	05:02		04:26	05:19 (B15)
	16:10	43 15:15 (B25)	17:16		18:17	20:22	27 08:14 (B18)	21:23		22:07	36 05:55 (B15)
16	08:40	09:38 (B12)	07:42		06:31	06:09	07:49 (B18)	05:00		04:25	05:19 (B15)
	16:12	42 15:15 (B25)	17:19		18:19	20:24	22 08:11 (B18)	21:25		22:08	37 05:56 (B15)
17	08:39	09:38 (B12)	07:40		06:29	06:07	07:52 (B18)	04:59		04:25	05:19 (B15)
	16:14	40 15:14 (B25)	17:21		18:22	20:26	16 08:08 (B18)	21:27		22:08	37 05:56 (B15)
18	08:37	09:16 (B11)	07:38		06:26	06:04	07:57 (B18)	04:57		04:25	05:19 (B15)
	16:16	47 15:15 (B25)	17:23		18:24	20:28	4 08:01 (B18)	21:29		22:09	37 05:56 (B15)
19	08:36	09:14 (B11)	07:35		06:23	17:56 (B22)	06:02	04:55		04:25	05:20 (B15)
	16:18	49 15:14 (B25)	17:25		18:26	2 17:58 (B22)	20:30	21:31		22:09	36 05:56 (B15)
20	08:35	09:12 (B11)	07:33		06:21	07:02 (B18)	05:59	04:53		04:25	05:20 (B15)
	16:20	49 15:13 (B25)	17:28		18:28	21 18:00 (B22)	20:32	21:33		22:10	37 05:57 (B15)
21	08:33	09:12 (B11)	07:31		06:18	06:58 (B18)	05:57	04:51		04:25	05:20 (B15)
	16:22	47 15:13 (B25)	17:30		18:30	32 18:02 (B22)	20:34	21:35		22:10	37 05:57 (B15)
22	08:32	09:11 (B11)	07:28		06:15	06:55 (B18)	05:54	04:50		04:25	05:21 (B15)
	16:24	43 15:11 (B25)	17:32		18:32	40 18:03 (B22)	20:37	21:36		22:10	37 05:58 (B15)
23	08:30	09:10 (B11)	07:26		06:13	06:53 (B18)	05:52	04:48		04:26	05:21 (B15)
	16:26	36 09:57 (B12)	17:34		18:34	48 18:06 (B22)	20:39	21:38		22:10	37 05:58 (B15)
24	08:29	09:09 (B11)	07:23		06:10	06:51 (B18)	05:49	04:47	05:31 (B15)	04:26	05:21 (B15)
	16:28	33 09:55 (B12)	17:36		18:36	54 18:08 (B22)	20:41	21:40	6 05:37 (B15)	22:10	36 05:57 (B15)
25	08:27	09:09 (B11)	07:21		06:07	06:49 (B18)	05:47	04:45	05:28 (B15)	04:26	05:21 (B15)
	16:30	27 09:36 (B11)	17:39		18:38	57 18:08 (B22)	20:43	21:41	12 05:40 (B15)	22:10	37 05:58 (B15)
26	08:25	09:09 (B11)	07:18		06:05	06:48 (B18)	05:44	04:44	05:25 (B15)	04:27	05:21 (B15)
	16:32	28 09:37 (B11)	17:41		18:40	59 18:08 (B22)	20:45	21:43	17 05:42 (B15)	22:10	37 05:58 (B15)
27	08:24	09:09 (B11)	07:16		06:02	06:47 (B18)	05:42	04:42	05:24 (B15)	04:27	05:22 (B15)
	16:34	29 09:38 (B11)	17:43		18:42	59 18:07 (B22)	20:47	21:45	20 05:44 (B15)	22:10	36 05:58 (B15)
28	08:22	09:09 (B11)	07:13		05:59	06:45 (B18)	05:39	04:41	05:23 (B15)	04:28	05:22 (B15)
	16:36	30 09:39 (B11)	17:45		18:45	59 18:05 (B22)	20:49	21:46	22 05:45 (B15)	22:10	36 05:58 (B15)
29	08:20	09:09 (B11)			06:57	07:45 (B18)	05:37	04:39	05:22 (B15)	04:28	05:22 (B15)
	16:38	30 09:39 (B11)			19:47	59 19:05 (B22)	20:51	21:48	24 05:46 (B15)	22:10	36 05:58 (B15)
30	08:18	09:08 (B11)			06:54	07:19 (B23)	05:35	04:38	05:22 (B15)	04:29	05:23 (B15)
	16:41	31 09:39 (B11)			19:49	60 19:02 (B22)	20:53	21:49	25 05:47 (B15)	22:09	36 05:59 (B15)
31	08:16	09:08 (B11)			06:51	07:16 (B23)		04:37	05:21 (B15)		
	16:43	31 09:39 (B11)			19:51	60 18:59 (B22)		21:51	27 05:48 (B15)		
Potential sun hours	235		266		366		426		508		529
Total, worst case	1228		341		610		915		153		1049
Sun reduction	0.13		0.20		0.41		0.50		0.57		0.56
Oper. time red.	0.98		0.98		0.98		0.98		0.98		0.98
Wind dir. red.	0.62		0.59		0.65		0.65		0.67		0.67
Total reduction	0.08		0.11		0.26		0.31		0.37		0.36
Total, real	97		39		156		284		56		378

Table layout: For each day in each month the following 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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Liepsala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (88)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December		
1	04:30		05:23 (B15)	05:16			06:17		07:06 (B23)	07:17			07:22		08:43 (B11)	08:24		09:17 (B12)
	22:09	35	05:58 (B15)	21:28			20:14	57	08:20 (B18)	18:53			16:36	24	09:07 (B11)	15:45	44	14:55 (B25)
2	04:31		05:23 (B15)	05:17			06:19		07:04 (B23)	07:19			07:25		08:41 (B11)	08:26		09:18 (B12)
	22:08	35	05:58 (B15)	21:26			20:11	62	08:21 (B18)	18:51			16:34	26	09:07 (B11)	15:44	44	14:56 (B25)
3	04:32		05:24 (B15)	05:19			06:21		07:04 (B23)	07:21			07:27		08:40 (B11)	08:27		09:18 (B12)
	22:08	35	05:59 (B15)	21:24			20:09	63	08:21 (B18)	18:48			16:31	28	09:08 (B11)	15:43	44	14:56 (B25)
4	04:32		05:24 (B15)	05:21			06:23		07:02 (B23)	07:23			07:29		08:40 (B11)	08:29		09:19 (B12)
	22:07	35	05:59 (B15)	21:21			20:06	66	08:21 (B18)	18:45			16:29	29	09:09 (B11)	15:42	44	14:57 (B25)
5	04:33		05:25 (B15)	05:23			06:25		07:01 (B23)	07:25			07:31		08:39 (B11)	08:31		09:19 (B12)
	22:06	34	05:59 (B15)	21:19			20:03	68	08:21 (B18)	18:43			16:27	30	09:09 (B11)	15:41	45	14:58 (B25)
6	04:35		05:25 (B15)	05:25			06:27		07:01 (B23)	07:27			07:33		08:40 (B11)	08:32		09:20 (B12)
	22:06	34	05:59 (B15)	21:17			20:01	68	08:21 (B18)	18:40			16:25	30	09:10 (B11)	15:41	43	14:58 (B25)
7	04:36		05:26 (B15)	05:27			06:29		07:01 (B23)	07:29			07:35		08:39 (B11)	08:34		09:20 (B12)
	22:05	32	05:58 (B15)	21:15			19:58	68	08:21 (B18)	18:38			16:23	31	09:10 (B11)	15:40	43	14:58 (B25)
8	04:37		05:26 (B15)	05:29			06:31		07:01 (B23)	07:31			07:38		08:38 (B11)	08:35		09:21 (B12)
	22:04	32	05:58 (B15)	21:13			19:55	68	08:21 (B18)	18:35			16:21	32	09:10 (B11)	15:40	42	14:58 (B25)
9	04:38		05:27 (B15)	05:31			06:33		07:02 (B23)	07:33			07:40		08:39 (B11)	08:36		09:21 (B12)
	22:03	31	05:58 (B15)	21:11			19:53	67	08:21 (B18)	18:32			16:19	32	09:11 (B11)	15:39	39	14:56 (B25)
10	04:39		05:27 (B15)	05:33			06:35		07:04 (B23)	07:36			07:42		08:39 (B11)	08:38		09:22 (B12)
	22:02	30	05:57 (B15)	21:08			19:50	64	08:21 (B18)	18:30			16:17	32	09:11 (B11)	15:39	38	14:56 (B25)
11	04:41		05:28 (B15)	05:35			06:37		07:06 (B23)	07:38			07:44		08:40 (B11)	08:39		09:23 (B12)
	22:01	29	05:57 (B15)	21:06			19:47	59	08:20 (B18)	18:27			16:15	31	09:11 (B11)	15:38	37	14:56 (B25)
12	04:42		05:28 (B15)	05:37			06:39		07:08 (B23)	07:40			07:46		08:40 (B11)	08:40		09:23 (B12)
	22:00	28	05:56 (B15)	21:04			19:45	59	18:50 (B22)	18:24			16:13	31	09:11 (B11)	15:38	35	14:55 (B25)
13	04:43		05:30 (B15)	05:39			06:41		07:10 (B23)	07:42			07:48		08:41 (B11)	08:41		09:24 (B12)
	21:59	26	05:56 (B15)	21:01			19:42	60	18:53 (B22)	18:22			16:11	30	09:11 (B11)	15:38	34	14:55 (B25)
14	04:45		05:31 (B15)	05:41			06:43		07:35 (B18)	07:44			07:51		08:41 (B11)	08:42		09:25 (B12)
	21:58	24	05:55 (B15)	20:59			19:39	59	18:55 (B22)	18:19			16:09	30	09:11 (B11)	15:38	33	14:55 (B25)
15	04:46		05:31 (B15)	05:43			06:45		07:36 (B18)	07:46			07:53		08:41 (B11)	08:43		09:25 (B12)
	21:56	23	05:54 (B15)	20:57			19:36	60	18:56 (B22)	18:17			16:07	29	09:10 (B11)	15:38	33	14:55 (B25)
16	04:48		05:33 (B15)	05:45			06:47		07:36 (B18)	07:48			07:55		08:42 (B11)	08:44		09:26 (B12)
	21:55	21	05:54 (B15)	20:54			19:34	60	18:56 (B22)	18:14			16:06	28	09:10 (B11)	15:38	30	14:54 (B25)
17	04:49		05:34 (B15)	05:47			06:49		07:36 (B18)	07:50			07:57		08:43 (B11)	08:45		09:27 (B12)
	21:54	18	05:52 (B15)	20:52			19:31	58	18:56 (B22)	18:12			16:04	27	09:10 (B11)	15:38	30	14:55 (B25)
18	04:51		05:37 (B15)	05:49			06:51		07:36 (B18)	07:52			07:59		08:43 (B11)	08:46		09:28 (B12)
	21:52	14	05:51 (B15)	20:49			19:28	57	18:55 (B22)	18:09			16:02	33	09:29 (B12)	15:38	29	14:55 (B25)
19	04:52		05:39 (B15)	05:51			06:53		07:37 (B18)	07:54			08:01		08:45 (B11)	08:47		09:28 (B12)
	21:51	9	05:48 (B15)	20:47			19:26	54	18:55 (B22)	18:07			16:01	36	09:32 (B12)	15:38	28	14:54 (B25)
20	04:54			05:53			06:55		07:38 (B18)	07:56			08:03		08:46 (B11)	08:48		09:29 (B12)
	21:49			20:44			19:23	49	18:52 (B22)	18:04			15:59	43	14:46 (B25)	15:38	27	14:55 (B25)
21	04:56			05:55			06:57		07:40 (B18)	07:59			08:05		08:47 (B11)	08:48		09:29 (B12)
	21:48			20:42			19:20	42	18:50 (B22)	18:02			15:57	47	14:48 (B25)	15:39	27	14:55 (B25)
22	04:57			05:57			06:59		07:42 (B18)	08:01			08:07		08:48 (B11)	08:49		09:30 (B12)
	21:46			20:39			19:18	35	18:47 (B22)	17:59			15:56	48	14:49 (B25)	15:39	27	14:56 (B25)
23	04:59			05:59			07:01		07:45 (B18)	08:03			08:09		08:51 (B11)	08:49		09:30 (B12)
	21:44			20:37			19:15	24	18:44 (B22)	17:57			15:55	49	14:51 (B25)	15:40	27	14:56 (B25)
24	05:01			06:01			07:03		18:38 (B22)	08:05			08:11		08:53 (B11)	08:50		09:31 (B12)
	21:43			20:34			19:12	4	18:42 (B22)	17:54			15:53	47	14:52 (B25)	15:40	27	14:57 (B25)
25	05:03			06:03		07:58 (B18)	07:05			07:07			08:13		09:16 (B12)	08:50		09:31 (B12)
	21:41			20:32	7	08:05 (B18)	19:10			16:52			15:52	39	14:52 (B25)	15:41	29	14:58 (B25)
26	05:04			06:05		07:53 (B18)	07:07			07:09			08:15		09:16 (B12)	08:50		09:31 (B12)
	21:39			20:29	17	08:10 (B18)	19:07			16:50			15:51	42	14:53 (B25)	15:42	29	14:58 (B25)
27	05:06			06:07		07:50 (B18)	07:09			07:12			08:17		09:16 (B12)	08:51		09:31 (B12)
	21:37			20:27	23	08:13 (B18)	19:04			16:47			15:49	43	14:54 (B25)	15:43	31	14:59 (B25)
28	05:08			06:09		07:48 (B18)	07:11			07:14			08:19		09:16 (B12)	08:51		09:31 (B12)
	21:35			20:24	27	08:15 (B18)	19:01			16:45			15:48	44	14:54 (B25)	15:44	31	15:00 (B25)
29	05:10			06:11		07:12 (B23)	07:13			07:16			08:20		09:17 (B12)	08:51		09:31 (B12)
	21:34			20:22	39	08:17 (B18)	18:59			16:43	13	09:01 (B11)	15:47	45	14:56 (B25)	15:44	33	15:01 (B25)
30	05:12			06:13		07:09 (B23)	07:15			07:18			08:22		09:18 (B12)	08:51		09:32 (B12)
	21:32			20:19	46	08:18 (B18)	18:56			16:40	17	09:03 (B11)	15:46	44	14:56 (B25)	15:45	34	15:03 (B25)
31	05:14			06:15		07:07 (B23)				07:20			08:43 (B11)			08:51		09:32 (B12)
	21:30			20:16	53	08:19 (B18)				16:38	22	09:05 (B11)				15:47	35	15:03 (B25)
Potential sun hours	529			469			385			324			247			216		
Total, worst case	525			212			1331			52			1060			1072		
Sun reduction	0.49			0.50			0.43			0.26			0.08			0.07		
Oper. time red.	0.98			0.98			0.98			0.98			0.98			0.98		
Wind dir. red.	0.67			0.65			0.65			0.59			0.61			0.63		
Total reduction	0.32			0.31			0.27			0.15			0.05			0.04		
Total, real	167			65			354			8			51			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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Liciš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (84)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	08:56 (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	08:31 (B22) 15:45
2	08:51 15:49	08:13 16:47	08:57 (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	08:57 (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	08:57 (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 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	08:28 (B22) 15:41
7	08:48 15:56	08:03 16:59	08:59 (B22) 18:01	06:55 19:59	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	08:27 (B22) 15:40
8	08:48 15:58	08:01 17:01	09:00 (B22) 18:03	06:53 19:58	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	08:28 (B22) 15:40
9	08:47 15:59	07:58 17:03	09:00 (B22) 18:05	06:50 19:58	06:28 21:12	05:15 22:02	04:29 22:03	04:38 21:11	05:31 19:53	06:33 18:32	07:34 16:19	08:27 (B22) 15:39
10	08:46 16:01	07:56 17:05	09:01 (B22) 18:07	06:47 19:57	06:25 21:14	05:13 22:03	04:28 22:02	04:39 21:08	05:33 19:50	06:35 18:30	07:36 16:17	08:28 (B22) 15:39
11	08:45 16:03	07:54 17:08	09:03 (B22) 18:09	06:45 19:59	06:22 21:16	05:11 22:04	04:27 22:01	04:41 21:06	05:37 19:47	06:37 18:27	07:38 16:15	08:28 (B22) 15:38
12	08:44 16:05	07:52 17:10	09:05 (B22) 18:11	06:42 19:58	06:20 21:18	05:08 22:05	04:27 22:00	04:42 21:04	05:37 19:45	06:39 18:25	07:40 16:13	08:28 (B22) 15:38
13	08:43 16:06	07:50 17:12	09:10 (B22) 18:13	06:40 19:58	06:17 21:20	05:06 22:06	04:26 21:59	04:43 21:02	05:39 19:42	06:41 18:22	07:42 16:11	08:27 (B22) 15:38
14	08:42 16:08	07:47 17:14	09:13 (B22) 18:15	06:37 19:58	06:15 21:22	05:04 22:07	04:26 21:58	04:45 20:59	05:41 19:39	06:43 18:20	07:44 16:09	08:27 (B22) 15:38
15	08:41 16:10	07:45 17:17	09:17 (B22) 18:18	06:34 19:58	06:12 21:24	05:03 22:07	04:26 21:57	04:46 20:57	05:43 19:37	06:45 18:17	07:46 16:08	08:27 (B22) 15:38
16	08:40 16:12	07:43 17:19	09:22 (B22) 18:20	06:32 19:58	06:09 21:26	05:01 22:08	04:25 21:55	04:48 20:54	05:45 19:34	06:47 18:14	07:48 16:06	08:27 (B22) 15:38
17	08:39 16:14	07:40 17:21	09:24 (B22) 18:22	06:29 19:58	06:07 21:27	04:59 22:09	04:25 21:54	04:49 20:52	05:47 19:31	06:49 18:12	07:50 16:04	08:27 (B22) 15:38
18	08:38 16:16	07:38 17:23	09:26 (B22) 18:24	06:26 19:58	06:04 21:29	04:57 22:09	04:25 21:53	04:51 20:50	05:49 19:29	06:51 18:09	07:52 16:02	08:27 (B22) 15:38
19	08:36 16:18	07:36 17:26	09:28 (B22) 18:26	06:24 19:58	06:02 21:31	04:55 22:09	04:25 21:51	04:52 20:47	05:51 19:26	06:53 18:07	07:55 16:01	08:27 (B22) 15:38
20	08:35 16:20	07:33 17:28	09:30 (B22) 18:28	06:21 19:58	05:59 21:33	04:53 22:10	04:25 21:49	04:54 20:45	05:53 19:23	06:55 18:04	07:57 15:59	08:27 (B22) 15:39
21	08:33 16:22	07:31 17:30	09:32 (B22) 18:30	06:18 19:58	05:57 21:35	04:52 22:10	04:25 21:48	04:56 20:42	05:55 19:21	06:57 18:02	07:59 15:58	08:27 (B22) 15:39
22	08:32 16:24	07:28 17:32	09:34 (B22) 18:32	06:16 19:58	05:54 21:37	04:50 22:10	04:25 21:46	04:57 20:40	05:57 19:18	06:59 17:59	08:01 15:56	08:27 (B22) 15:39
23	08:30 16:26	09:05 (B22) 17:32	09:36 (B22) 18:34	06:13 19:58	05:52 21:38	04:48 22:10	04:26 21:45	04:59 20:37	05:59 19:15	07:01 17:57	08:03 15:55	08:27 (B22) 15:40
24	08:29 16:28	09:07 (B22) 17:37	09:38 (B22) 18:36	06:10 19:58	05:49 21:40	04:47 22:10	04:26 21:43	05:01 20:35	06:01 19:12	07:03 17:55	08:05 15:53	08:27 (B22) 15:41
25	08:27 16:30	09:09 (B22) 17:41	09:40 (B22) 18:38	06:08 19:58	05:47 21:42	04:45 22:10	04:26 21:41	05:03 20:32	06:03 19:10	07:05 17:52	08:07 15:52	08:27 (B22) 15:41
26	08:26 16:32	09:11 (B22) 17:43	09:42 (B22) 18:40	06:05 19:58	05:44 21:43	04:44 22:10	04:27 21:39	05:05 20:30	06:05 19:07	07:07 17:50	08:09 15:51	08:27 (B22) 15:42
27	08:24 16:34	09:13 (B22) 17:45	09:44 (B22) 18:42	06:02 19:58	05:42 21:45	04:42 22:10	04:27 21:38	05:06 20:27	06:07 19:04	07:09 17:47	08:11 15:49	08:27 (B22) 15:43
28	08:22 16:36	09:15 (B22) 17:47	09:46 (B22) 18:44	05:59 19:58	05:40 21:47	04:41 22:10	04:28 21:36	05:08 20:24	06:09 19:02	07:11 17:45	08:13 15:48	08:27 (B22) 15:44
29	08:20 16:39	09:17 (B22) 17:49	09:48 (B22) 18:46	05:57 19:58	05:37 21:48	04:40 22:10	04:29 21:34	05:10 20:22	06:11 18:59	07:13 17:43	08:15 15:47	08:27 (B22) 15:45
30	08:19 16:41	09:19 (B22) 17:51	09:49 (B22) 18:47	05:54 19:58	05:35 21:50	04:38 22:09	04:29 21:32	05:12 20:19	06:13 18:56	07:15 17:41	08:17 15:46	08:27 (B22) 15:46
31	08:17 16:43	09:21 (B22) 17:53	09:50 (B22) 18:48	05:51 19:58	05:31 21:51	04:37 22:10	05:14 21:30	06:15 20:17	07:20 16:38	08:32 (B22) 18:50	08:22 15:46	08:27 (B22) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	193	281								38	442	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.98	0.98								0.98	0.98	
Wind dir. red.	0.59	0.59								0.59	0.59	
Total reduction	0.08	0.12								0.15	0.05	
Total, real	15	33								6	21	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Licu Dzirnavas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (54)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
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27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:49	08:51 15:43
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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Maurini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (37)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
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26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:54	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mazezeri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (151)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:24 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
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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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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
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20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Meistari - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (85)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April	May	June	July	August		September	October	November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	7 07:21 (B14)	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	15 07:02 (B14) 07:17 (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	10 07:21 (B14)	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	17 07:01 (B14) 07:18 (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	14 07:23 (B14)	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	18 07:00 (B14) 07:18 (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	17 07:23 (B14)	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	20 06:59 (B14) 07:19 (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	19 07:03 (B14) 07:22 (B14)	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	21 06:58 (B14) 07:19 (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	21 07:02 (B14) 07:23 (B14)	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	21 06:58 (B14) 07:19 (B14)	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01		06:33 20:06	21 07:01 (B14) 07:22 (B14)	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	19 06:59 (B14) 07:18 (B14)	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03		06:30 20:08	20 07:02 (B14) 07:22 (B14)	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	17 07:00 (B14) 07:17 (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	18 07:02 (B14) 07:20 (B14)	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	14 07:02 (B14) 07:16 (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	17 07:02 (B14) 07:19 (B14)	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	11 07:04 (B14) 07:15 (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	15 07:03 (B14) 07:18 (B14)	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	7 07:06 (B14) 07:13 (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	11 07:04 (B14) 07:15 (B14)	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	3 07:08 (B14) 07:11 (B14)	07:40 18:25	07:46 16:14	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13		06:17 20:18	2 07:09 (B14) 07:11 (B14)	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42		07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16		06:15 20:20		05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39		07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18		06:12 20:22		05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20		06:10 20:24		05:01 21:26	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	06:49 19:29		07:51 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		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	04:28 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 17:45	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 17:47	05:57 18:47		05:37 20:51		04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59		07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41	06:54 17:49	05:54 18:49		05:35 20:53		04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:09 (B14) 07:11 (B14)	07:15 18:56	08:22 15:46	08:51 15:46
31	08:17 16:43	06:52 17:51	05:52 18:49	07:17 (B14) 07:19 (B14)	05:35 20:53		04:37 21:51	04:29 22:10	05:14 21:30	06:15 20:17	07:15 (B14) 07:15 (B14)		07:20 16:38	08:25 15:47	08:51 15:47
Potential sun hours	235	266	366		426		508	528	529	469		385		324	247
Total, worst case			2		192					13		183			
Sun reduction			0.41		0.50					0.50		0.43			
Oper. time red.			0.98		0.98					0.98		0.98			
Wind dir. red.			0.66		0.66					0.66		0.66			
Total reduction			0.27		0.32					0.32		0.28			
Total, real			1		62					4		50			

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež a Muiž a - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (134)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
1	08:51		13:25 (B22)	08:15		13:40 (B22)	07:11		06:49				05:32		04:36			
	15:48	61	14:31 (B14)	16:45	35	14:15 (B22)	17:47		19:53				20:55		21:53			
2	08:50		13:26 (B22)	08:13		13:41 (B22)	07:08		06:46				05:30		04:35			
	15:49	59	14:31 (B14)	16:47	33	14:14 (B22)	17:50		19:55				20:57		21:54			
3	08:50		13:26 (B22)	08:11		13:43 (B22)	07:06		06:43				05:28		04:34			
	15:51	59	14:31 (B14)	16:50	30	14:13 (B22)	17:52		19:57				20:59		21:55			
4	08:50		13:26 (B22)	08:09		13:45 (B22)	07:03		06:41				05:26		04:33			
	15:52	57	14:30 (B14)	16:52	27	14:12 (B22)	17:54		19:59				21:02		21:57			
5	08:49		13:27 (B22)	08:07		13:48 (B22)	07:00		06:38				05:23		04:32			
	15:53	58	14:31 (B14)	16:54	22	14:10 (B22)	17:56		20:01				21:04		21:58			
6	08:49		13:27 (B22)	08:05		13:50 (B22)	06:58		06:35				05:21		04:31			
	15:55	56	14:30 (B14)	16:56	16	14:06 (B22)	17:58		20:03				21:06		21:59			
7	08:48		13:27 (B22)	08:03			06:55		06:33				05:19		04:30			
	15:56	55	14:30 (B14)	16:59			18:00		20:05				21:08		22:00			
8	08:47		13:27 (B22)	08:00			06:53		06:30				05:17		04:29			
	15:58	51	14:28 (B14)	17:01			18:03		20:07				21:10		22:01			
9	08:47		13:27 (B22)	07:58			06:50		06:27				05:15		04:28			
	15:59	47	14:14 (B22)	17:03			18:05		20:10				21:12		22:02			
10	08:46		13:28 (B22)	07:56			06:47		06:25			06:50 (B4)	05:13		04:28			
	16:01	46	14:14 (B22)	17:05			18:07		20:12		5	06:55 (B4)	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	47	14:15 (B22)	17:08			18:09		20:14		9	06:57 (B4)	21:16		22:04			
12	08:44		13:28 (B22)	07:52			06:42		06:20			06:45 (B4)	05:08		04:27			
	16:04	47	14:15 (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	47	14:15 (B22)	17:12			18:13		20:18		16	06:59 (B4)	21:20		22:06			
14	08:42		13:29 (B22)	07:47			06:37		06:14			06:40 (B4)	05:04		04:26			
	16:08	47	14:16 (B22)	17:14			18:15		20:20		19	06:59 (B4)	21:22		22:07			
15	08:41		13:29 (B22)	07:45			06:34		06:12			06:39 (B4)	05:02		04:26			
	16:10	47	14:16 (B22)	17:17			18:17		20:22		21	07:00 (B4)	21:24		22:07			
16	08:40		13:29 (B22)	07:43			06:31		06:09			06:38 (B4)	05:01		04:25			
	16:12	48	14:17 (B22)	17:19			18:20		20:24		21	06:59 (B4)	21:25		22:08			
17	08:39		13:29 (B22)	07:40			06:29		06:07			06:38 (B4)	04:59		04:25			
	16:14	48	14:17 (B22)	17:21			18:22		20:26		21	06:59 (B4)	21:27		22:08			
18	08:37		13:30 (B22)	07:38			06:26		06:04			06:37 (B4)	04:57		04:25			
	16:16	48	14:18 (B22)	17:23			18:24		20:28		21	06:58 (B4)	21:29		22:09			
19	08:36		13:30 (B22)	07:35			06:23		06:02			06:38 (B4)	04:55		04:25			
	16:18	48	14:18 (B22)	17:25			18:26		20:30		20	06:58 (B4)	21:31		22:09			
20	08:35		13:31 (B22)	07:33			06:21		05:59			06:37 (B4)	04:53		04:25			
	16:20	47	14:18 (B22)	17:28			18:28		20:32		20	06:57 (B4)	21:33		22:10			
21	08:33		13:31 (B22)	07:31			06:18		05:57			06:38 (B4)	04:52		04:25			
	16:22	47	14:18 (B22)	17:30			18:30		20:35		18	06:56 (B4)	21:35		22:10			
22	08:32		13:32 (B22)	07:28			06:15		05:54			06:40 (B4)	04:50		04:25			
	16:24	46	14:18 (B22)	17:32			18:32		20:37		15	06:55 (B4)	21:36		22:10			
23	08:30		13:32 (B22)	07:26			06:13		05:52			06:40 (B4)	04:48		04:26			
	16:26	46	14:18 (B22)	17:34			18:34		20:39		13	06:53 (B4)	21:38		22:10			
24	08:29		13:32 (B22)	07:23			06:10		05:49			06:43 (B4)	04:47		04:26			
	16:28	46	14:18 (B22)	17:37			18:36		20:41		7	06:50 (B4)	21:40		22:10			
25	08:27		13:34 (B22)	07:21			06:07		05:47				04:45		04:26			
	16:30	45	14:19 (B22)	17:39			18:38		20:43				21:42		22:10			
26	08:25		13:35 (B22)	07:18			06:05		05:44				04:44		04:27			
	16:32	44	14:19 (B22)	17:41			18:40		20:45				21:43		22:10			
27	08:24		13:35 (B22)	07:16			06:02		05:42				04:42		04:27			
	16:34	43	14:18 (B22)	17:43			18:43		20:47				21:45		22:10			
28	08:22		13:36 (B22)	07:13			05:59		05:40				04:41		04:28			
	16:36	42	14:18 (B22)	17:45			18:45		20:49				21:47		22:10			
29	08:20		13:37 (B22)				06:57		05:37				04:39		04:28			
	16:39	41	14:18 (B22)				19:47		20:51				21:48		22:10			
30	08:18		13:38 (B22)				06:54		05:35				04:38		04:29			
	16:41	39	14:17 (B22)				19:49		20:53				21:50		22:09			
31	08:17		13:38 (B22)				06:51						04:37					
	16:43	38	14:16 (B22)				19:51						21:51					
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1500			163					239									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.98			0.98					0.98									
Wind dir. red.	0.65			0.65					0.66									
Total reduction	0.08			0.13					0.32									
Total, real	127			21					77									

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež a Muiž a - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (134)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:47 (B4)	07:17	07:23
	22:09	21:28	20:14	9 06:56 (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	4 06:53 (B4)	18:51	16:34
3	04:32	05:19	06:21		07:21	07:27
	22:08	21:24	20:09		18:48	16:31
4	04:33	05:21	06:23		07:23	07:29
	22:07	21:22	20:06		18:46	16:29
5	04:34	05:23	06:25		07:25	07:31
	22:07	21:19	20:03		18:43	16:27
6	04:35	05:25	06:27		07:27	07:33
	22:06	21:17	20:01		18:40	16:25
7	04:36	05:27	06:29		07:29	07:36
	22:05	21:15	19:58		18:38	16:23
8	04:37	05:29	06:31		07:32	07:38
	22:04	21:13	19:55		18:35	16:21
9	04:38	05:31	06:33		07:34	07:40
	22:03	21:11	19:53		18:32	16:19
10	04:39	05:33	06:35		07:36	07:42
	22:02	21:08	19:50		18:30	16:17
11	04:41	05:35	06:37		07:38	07:44
	22:01	21:06	19:47		18:27	16:15
12	04:42	05:37	06:39		07:40	07:46
	22:00	21:04	19:45		18:25	16:13
13	04:43	05:39	06:41		07:42	07:49
	21:59	21:01	19:42		18:22	16:11
14	04:45	05:41	06:43		07:44	07:51
	21:58	20:59	19:39		18:19	16:09
15	04:46	05:43	06:45		07:46	07:53
	21:57	20:57	19:37		18:17	16:08
16	04:48	05:45	06:47		07:48	07:55
	21:55	20:54	19:34		18:14	16:06
17	04:49	05:47	06:49		07:50	07:57
	21:54	20:52	19:31		18:12	16:04
18	04:51	05:49	06:51		07:52	07:59
	21:52	20:49	19:29		18:09	16:02
19	04:52	05:51	06:53		07:54	08:01
	21:51	20:47	9 06:57 (B4)	19:26	18:07	16:01
20	04:54	05:53	06:55		07:57	08:03
	21:49	20:45	13 06:59 (B4)	19:23	18:04	15:59
21	04:56	05:55	06:57		07:59	08:05
	21:48	20:42	16 07:00 (B4)	19:20	18:02	15:58
22	04:57	05:57	06:59		08:01	08:07
	21:46	20:40	18 07:01 (B4)	19:18	17:59	15:56
23	04:59	05:59	07:01		08:03	08:09
	21:45	20:37	20 07:02 (B4)	19:15	17:57	15:55
24	05:01	06:01	07:03		08:05	08:11
	21:43	20:35	21 07:02 (B4)	19:12	17:55	15:53
25	05:03	06:03	07:05		08:07	08:13
	21:41	20:32	21 07:02 (B4)	19:10	16:52	15:52
26	05:04	06:05	07:07		08:09	08:15
	21:39	20:29	22 07:01 (B4)	19:07	16:50	15:51
27	05:06	06:07	07:09		08:11	08:17
	21:37	20:27	22 07:01 (B4)	19:04	16:47	15:49
28	05:08	06:09	07:11		08:13	08:19
	21:36	20:24	22 07:01 (B4)	19:02	16:45	15:48
29	05:10	06:11	07:13		08:15	08:21
	21:34	20:22	19 07:00 (B4)	18:59	16:43	15:47
30	05:12	06:13	07:15		08:17	08:22
	21:32	20:19	16 06:59 (B4)	18:56	16:40	15:46
31	05:14	06:15	07:17		08:19	08:25
	21:30	20:17	13 06:58 (B4)		16:38	15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		232	13		1073	1809
Sun reduction		0.50	0.43		0.08	0.07
Oper. time red.		0.98	0.98		0.98	0.98
Wind dir. red.		0.66	0.66		0.65	0.65
Total reduction		0.32	0.27		0.05	0.04
Total, real		74	4		56	81

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež a Rasas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (102)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež muiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (122)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March	April	May	June
1	08:51		13:49 (B22)	08:15		13:55 (B22)	07:11	06:49	05:32	04:36
	15:48	53	14:42 (B14)	16:45	45	14:40 (B22)	17:47	19:53	20:55	21:52
2	08:50		13:50 (B22)	08:13		13:56 (B22)	07:08	06:46	05:30	04:35
	15:49	53	14:43 (B14)	16:47	43	14:39 (B22)	17:50	19:55	20:57	21:54
3	08:50		13:50 (B22)	08:11		13:57 (B22)	07:06	06:43	05:28	04:34
	15:51	53	14:43 (B14)	16:50	42	14:39 (B22)	17:52	19:57	20:59	21:55
4	08:50		13:49 (B22)	08:09		13:58 (B22)	07:03	06:41	05:26	04:33
	15:52	54	14:43 (B14)	16:52	41	14:39 (B22)	17:54	19:59	21:02	21:57
5	08:49		13:50 (B22)	08:07		14:00 (B22)	07:00	06:38	05:23	04:32
	15:53	53	14:43 (B14)	16:54	38	14:38 (B22)	17:56	20:01	21:04	21:58
6	08:49		13:50 (B22)	08:05		14:00 (B22)	06:58	06:35	05:21	04:31
	15:55	53	14:43 (B14)	16:56	37	14:37 (B22)	17:58	20:03	21:06	21:59
7	08:48		13:50 (B22)	08:03		14:02 (B22)	06:55	06:33	05:19	04:30
	15:56	53	14:43 (B14)	16:59	34	14:36 (B22)	18:00	20:05	21:08	22:00
8	08:47		13:50 (B22)	08:00		14:04 (B22)	06:53	06:30	05:17	04:29
	15:58	53	14:43 (B14)	17:01	31	14:35 (B22)	18:03	20:07	21:10	22:01
9	08:47		13:50 (B22)	07:58		14:05 (B22)	06:50	06:27	05:15	04:28
	15:59	53	14:43 (B14)	17:03	28	14:33 (B22)	18:05	20:10	21:12	22:02
10	08:46		13:50 (B22)	07:56		14:08 (B22)	06:47	06:25	05:13	04:28
	16:01	53	14:43 (B14)	17:05	23	14:31 (B22)	18:07	20:12	21:14	22:03
11	08:45		13:50 (B22)	07:54		14:12 (B22)	06:45	06:22	05:10	04:27
	16:03	52	14:42 (B14)	17:08	16	14:28 (B22)	18:09	20:14	21:16	22:04
12	08:44		13:50 (B22)	07:52		14:18 (B22)	06:42	06:20	05:08	04:27
	16:04	51	14:41 (B14)	17:10	3	14:21 (B22)	18:11	20:16	21:18	22:05
13	08:43		13:50 (B22)	07:49			06:39	06:17	05:06	04:26
	16:06	49	14:39 (B14)	17:12			18:13	20:18	5 06:48 (B4)	21:20
14	08:42		13:50 (B22)	07:47			06:37	06:14	06:40 (B4)	05:04
	16:08	45	14:35 (B22)	17:14			18:15	20:20	9 06:49 (B4)	21:22
15	08:41		13:50 (B22)	07:45			06:34	06:12	06:38 (B4)	05:02
	16:10	45	14:35 (B22)	17:17			18:17	20:22	13 06:51 (B4)	21:24
16	08:40		13:50 (B22)	07:43			06:31	06:09	06:35 (B4)	05:01
	16:12	47	14:37 (B22)	17:19			18:20	20:24	17 06:52 (B4)	21:25
17	08:39		13:50 (B22)	07:40			06:29	06:07	06:33 (B4)	04:59
	16:14	47	14:37 (B22)	17:21			18:22	20:26	20 06:53 (B4)	21:27
18	08:37		13:51 (B22)	07:38			06:26	06:04	06:31 (B4)	04:57
	16:16	47	14:38 (B22)	17:23			18:24	20:28	21 06:52 (B4)	21:29
19	08:36		13:51 (B22)	07:35			06:23	06:02	06:31 (B4)	04:55
	16:18	47	14:38 (B22)	17:25			18:26	20:30	22 06:53 (B4)	21:31
20	08:35		13:51 (B22)	07:33			06:21	05:59	06:30 (B4)	04:53
	16:20	48	14:39 (B22)	17:28			18:28	20:32	22 06:52 (B4)	21:33
21	08:33		13:51 (B22)	07:31			06:18	05:57	06:30 (B4)	04:52
	16:22	48	14:39 (B22)	17:30			18:30	20:35	22 06:52 (B4)	21:35
22	08:32		13:51 (B22)	07:28			06:15	05:54	06:30 (B4)	04:50
	16:24	48	14:39 (B22)	17:32			18:32	20:37	22 06:52 (B4)	21:36
23	08:30		13:51 (B22)	07:26			06:13	05:52	06:30 (B4)	04:48
	16:26	48	14:39 (B22)	17:34			18:34	20:39	21 06:51 (B4)	21:38
24	08:29		13:51 (B22)	07:23			06:10	05:49	06:31 (B4)	04:47
	16:28	49	14:40 (B22)	17:37			18:36	20:41	19 06:50 (B4)	21:40
25	08:27		13:53 (B22)	07:21			06:07	05:47	06:31 (B4)	04:45
	16:30	48	14:41 (B22)	17:39			18:38	20:43	19 06:50 (B4)	21:42
26	08:25		13:53 (B22)	07:18			06:05	05:44	06:32 (B4)	04:44
	16:32	48	14:41 (B22)	17:41			18:40	20:45	16 06:48 (B4)	21:43
27	08:24		13:53 (B22)	07:16			06:02	05:42	06:33 (B4)	04:42
	16:34	48	14:41 (B22)	17:43			18:43	20:47	13 06:46 (B4)	21:45
28	08:22		13:54 (B22)	07:13			05:59	05:40	06:36 (B4)	04:41
	16:36	47	14:41 (B22)	17:45			18:45	20:49	8 06:44 (B4)	21:47
29	08:20		13:54 (B22)				06:57	05:37		04:39
	16:39	47	14:41 (B22)				19:47	20:51		21:48
30	08:18		13:55 (B22)				06:54	05:35		04:38
	16:41	46	14:41 (B22)				19:49	20:53		21:50
31	08:17		13:54 (B22)				06:51			04:37
	16:43	46	14:40 (B22)				19:51			21:51
Potential sun hours	235			266			366	426	508	529
Total, worst case	1532			381				269		
Sun reduction	0.13			0.20				0.50		
Oper. time red.	0.98			0.98				0.98		
Wind dir. red.	0.66			0.66				0.65		
Total reduction	0.09			0.13				0.32		
Total, real	132			50				86		

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež muiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (122)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December		
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	13:37 (B22) 14:01 (B22)	08:24 15:45	13:32 (B22) 14:24 (B14)
2	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	13:34 (B22) 14:02 (B22)	08:26 15:44	13:33 (B22) 14:26 (B14)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	13:33 (B22) 14:05 (B22)	08:27 15:43	13:33 (B22) 14:26 (B14)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	13:31 (B22) 14:06 (B22)	08:29 15:42	13:34 (B22) 14:27 (B14)
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	13:30 (B22) 14:06 (B22)	08:31 15:42	13:35 (B22) 14:28 (B14)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	13:29 (B22) 14:08 (B22)	08:32 15:41	13:36 (B22) 14:29 (B14)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	13:28 (B22) 14:09 (B22)	08:34 15:40	13:36 (B22) 14:29 (B14)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	13:28 (B22) 14:10 (B22)	08:35 15:40	13:37 (B22) 14:31 (B14)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	13:27 (B22) 14:10 (B22)	08:37 15:39	13:38 (B22) 14:31 (B14)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	13:26 (B22) 14:10 (B22)	08:38 15:39	13:39 (B22) 14:32 (B14)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	13:26 (B22) 14:12 (B22)	08:39 15:38	13:39 (B22) 14:32 (B14)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	13:26 (B22) 14:12 (B22)	08:40 15:38	13:41 (B22) 14:33 (B14)
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	13:26 (B22) 14:13 (B22)	08:41 15:38	13:41 (B22) 14:34 (B14)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	13:25 (B22) 14:13 (B22)	08:43 15:38	13:42 (B22) 14:34 (B14)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	13:25 (B22) 14:13 (B22)	08:44 15:38	13:42 (B22) 14:35 (B14)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	13:26 (B22) 14:14 (B22)	08:45 15:38	13:43 (B22) 14:35 (B14)
17	04:49 21:54	05:47 20:52	06:38 (B4) 19:31	06:49 18:12	07:57 16:04	13:26 (B22) 14:14 (B22)	08:45 15:38	13:44 (B22) 14:36 (B14)
18	04:51 21:52	05:49 20:49	06:34 (B4) 19:29	06:51 18:09	07:59 16:02	13:25 (B22) 14:14 (B22)	08:46 15:38	13:45 (B22) 14:36 (B14)
19	04:52 21:51	05:51 20:47	06:36 (B4) 19:26	06:53 18:07	08:01 16:01	13:26 (B22) 14:14 (B22)	08:47 15:38	13:45 (B22) 14:36 (B14)
20	04:54 21:49	05:53 20:45	06:35 (B4) 19:23	06:55 18:04	08:03 15:59	13:26 (B22) 14:14 (B22)	08:48 15:39	13:45 (B22) 14:37 (B14)
21	04:56 21:48	05:55 20:42	06:35 (B4) 19:20	06:57 18:02	08:05 15:58	13:26 (B22) 14:14 (B22)	08:48 15:39	13:46 (B22) 14:38 (B14)
22	04:57 21:46	05:57 20:40	06:34 (B4) 19:18	06:59 17:59	08:07 15:56	13:27 (B22) 14:15 (B22)	08:49 15:39	13:46 (B22) 14:38 (B14)
23	04:59 21:45	05:59 20:37	06:34 (B4) 19:15	07:01 17:57	08:09 15:55	13:28 (B22) 14:15 (B22)	08:49 15:40	13:47 (B22) 14:39 (B14)
24	05:01 21:43	06:01 20:35	06:34 (B4) 19:12	07:03 17:55	08:11 15:53	13:28 (B22) 14:15 (B22)	08:50 15:40	13:47 (B22) 14:39 (B14)
25	05:03 21:41	06:03 20:32	06:35 (B4) 19:10	07:05 16:52	08:13 15:52	13:28 (B22) 14:15 (B22)	08:50 15:41	13:48 (B22) 14:39 (B14)
26	05:04 21:39	06:05 20:29	06:35 (B4) 19:07	07:07 16:50	08:15 15:51	13:29 (B22) 14:15 (B22)	08:51 15:42	13:48 (B22) 14:39 (B14)
27	05:06 21:37	06:07 20:27	06:37 (B4) 19:04	07:09 16:47	08:17 15:49	13:30 (B22) 14:16 (B22)	08:51 15:43	13:48 (B22) 14:40 (B14)
28	05:08 21:36	06:09 20:24	06:39 (B4) 19:02	07:11 16:45	08:19 15:48	13:30 (B22) 14:16 (B22)	08:51 15:44	13:48 (B22) 14:40 (B14)
29	05:10 21:34	06:11 20:22	06:41 (B4) 18:59	07:13 16:43	08:21 15:47	13:31 (B22) 14:20 (B14)	08:51 15:45	13:49 (B22) 14:41 (B14)
30	05:12 21:32	06:13 20:19	06:43 (B4) 18:56	07:15 16:40	08:22 15:46	13:32 (B22) 14:23 (B14)	08:51 15:46	13:49 (B22) 14:41 (B14)
31	05:14 21:30	06:15 20:17		07:20 16:38	08:23 15:47	13:33 (B22) 14:23 (B14)	08:51 15:47	13:50 (B22) 14:42 (B14)
Potential sun hours	529	469	385	324	247		216	
Total, worst case		271		26	1315		1621	
Sun reduction		0.50		0.26	0.08		0.07	
Oper. time red.		0.98		0.98	0.98		0.98	
Wind dir. red.		0.65		0.66	0.66		0.66	
Total reduction		0.32		0.17	0.05		0.05	
Total, real		87		4	70		74	

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež setas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (165)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež vidi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (71)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April		May		June	
1	08:51		12:20 (B25)	08:15		15:27 (B24)	07:11			06:49		05:32		04:36	
	15:48	48	13:08 (B25)	16:45	27	15:54 (B24)	17:47			19:53		20:55		21:52	
2	08:50		12:20 (B25)	08:13		15:26 (B24)	07:08			06:46		05:30		04:35	
	15:49	48	13:08 (B25)	16:47	30	15:56 (B24)	17:50			19:55		20:57		21:54	
3	08:50		12:21 (B25)	08:11		15:25 (B24)	07:06			06:43		05:28		04:34	
	15:51	48	13:09 (B25)	16:50	32	15:57 (B24)	17:52			19:57		20:59		21:55	
4	08:50		12:21 (B25)	08:09		15:24 (B24)	07:03			06:41		05:26		04:33	
	15:52	48	13:09 (B25)	16:52	34	15:58 (B24)	17:54			19:59		21:01		21:56	
5	08:49		12:21 (B25)	08:07		15:23 (B24)	07:00			06:38		05:23		04:32	
	15:53	48	13:09 (B25)	16:54	36	15:59 (B24)	17:56			20:01		21:04		21:58	
6	08:49		12:22 (B25)	08:05		15:23 (B24)	06:58			06:35		05:21		04:31	
	15:55	48	13:10 (B25)	16:56	37	16:00 (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	39	16:01 (B24)	18:00			20:05		21:08		22:00	
8	08:47		12:23 (B25)	08:00		15:22 (B24)	06:53			06:30		05:17		04:29	21:04 (B22)
	15:58	48	13:11 (B25)	17:01	40	16:02 (B24)	18:03			20:07		21:10		22:01	4 21:08 (B22)
9	08:47		12:23 (B25)	07:58		15:21 (B24)	06:50		17:30 (B14)	06:27		05:15		04:29	21:01 (B22)
	15:59	48	13:11 (B25)	17:03	40	16:01 (B24)	18:05	6	17:36 (B14)	20:10		21:12		22:02	9 21:10 (B22)
10	08:46		12:24 (B25)	07:56		15:21 (B24)	06:47		17:25 (B14)	06:25		05:13		04:28	21:00 (B22)
	16:01	48	13:12 (B25)	17:05	41	16:02 (B24)	18:07	14	17:39 (B14)	20:12		21:14		22:03	12 21:12 (B22)
11	08:45		12:25 (B25)	07:54		15:21 (B24)	06:45		17:23 (B14)	06:22		05:10		04:27	20:59 (B22)
	16:03	47	13:12 (B25)	17:08	41	16:02 (B24)	18:09	17	17:40 (B14)	20:14		21:16		22:04	14 21:13 (B22)
12	08:44		12:24 (B25)	07:52		15:21 (B24)	06:42		17:22 (B14)	06:20		05:08		04:27	20:59 (B22)
	16:04	48	13:12 (B25)	17:10	41	16:02 (B24)	18:11	21	17:43 (B14)	20:16		21:18		22:05	15 21:14 (B22)
13	08:43		12:25 (B25)	07:49		15:21 (B24)	06:39		17:20 (B14)	06:17		05:06		04:26	20:59 (B22)
	16:06	47	13:12 (B25)	17:12	42	16:03 (B24)	18:13	23	17:43 (B14)	20:18		21:20		22:06	16 21:15 (B22)
14	08:42		12:26 (B25)	07:47		15:21 (B24)	06:37		17:19 (B14)	06:14		05:04		04:26	20:59 (B22)
	16:08	47	13:13 (B25)	17:14	41	16:02 (B24)	18:15	24	17:43 (B14)	20:20		21:21		22:06	17 21:16 (B22)
15	08:41		12:26 (B25)	07:45		15:21 (B24)	06:34		17:17 (B14)	06:12		05:03		04:26	20:57 (B22)
	16:10	46	13:12 (B25)	17:17	42	16:03 (B24)	18:17	26	17:43 (B14)	20:22		21:23		22:07	19 21:16 (B22)
16	08:40		12:27 (B25)	07:42		15:21 (B24)	06:31		17:18 (B14)	06:09		05:01		04:25	20:57 (B22)
	16:12	46	13:13 (B25)	17:19	41	16:02 (B24)	18:20	26	17:44 (B14)	20:24		21:25		22:08	20 21:17 (B22)
17	08:39		12:28 (B25)	07:40		15:22 (B24)	06:29		17:17 (B14)	06:07		04:59		04:25	20:57 (B22)
	16:14	44	13:12 (B25)	17:21	40	16:02 (B24)	18:22	27	17:44 (B14)	20:26		21:27		22:08	20 21:17 (B22)
18	08:37		12:29 (B25)	07:38		15:22 (B24)	06:26		06:51 (B11)	06:04		04:57		04:25	20:57 (B22)
	16:16	44	13:13 (B25)	17:23	39	16:01 (B24)	18:24	28	17:43 (B14)	20:28		21:29		22:09	21 21:18 (B22)
19	08:36		12:29 (B25)	07:35		15:23 (B24)	06:23		06:49 (B11)	06:02		04:55		04:25	20:57 (B22)
	16:18	43	13:12 (B25)	17:25	38	16:01 (B24)	18:26	32	17:43 (B14)	20:30		21:31		22:09	21 21:18 (B22)
20	08:35		12:30 (B25)	07:33		15:23 (B24)	06:21		06:46 (B11)	05:59		04:53		04:25	20:57 (B22)
	16:20	42	13:12 (B25)	17:28	37	16:00 (B24)	18:28	35	17:42 (B14)	20:32		21:33		22:10	21 21:18 (B22)
21	08:33		12:31 (B25)	07:31		15:25 (B24)	06:18		06:43 (B11)	05:57		04:52		04:25	20:58 (B22)
	16:22	41	13:12 (B25)	17:30	34	15:59 (B24)	18:30	37	17:41 (B14)	20:35		21:35		22:10	21 21:19 (B22)
22	08:32		12:32 (B25)	07:28		15:25 (B24)	06:15		06:41 (B11)	05:54		04:50		04:25	20:58 (B22)
	16:24	39	13:11 (B25)	17:32	33	15:58 (B24)	18:32	38	17:40 (B14)	20:37		21:36		22:10	21 21:19 (B22)
23	08:30		12:33 (B25)	07:26		15:27 (B24)	06:13		06:38 (B11)	05:52		04:48		04:26	20:58 (B22)
	16:26	38	13:11 (B25)	17:34	30	15:57 (B24)	18:34	38	17:38 (B14)	20:39		21:38		22:10	21 21:19 (B22)
24	08:29		12:34 (B25)	07:23		15:29 (B24)	06:10		06:37 (B11)	05:49		04:47		04:26	20:58 (B22)
	16:28	36	13:10 (B25)	17:37	26	15:55 (B24)	18:36	35	17:36 (B14)	20:41		21:40		22:10	21 21:19 (B22)
25	08:27		12:35 (B25)	07:21		15:30 (B24)	06:07		06:37 (B11)	05:47		04:45		04:26	20:59 (B22)
	16:30	34	13:09 (B25)	17:39	22	15:52 (B24)	18:38	30	17:33 (B14)	20:43		21:42		22:10	20 21:19 (B22)
26	08:25		12:38 (B25)	07:18		15:34 (B24)	06:05		06:37 (B11)	05:44		04:44		04:27	20:59 (B22)
	16:32	31	13:09 (B25)	17:41	16	15:50 (B24)	18:40	18	06:55 (B11)	20:45		21:43		22:10	20 21:19 (B22)
27	08:24		12:39 (B25)	07:16		15:40 (B24)	06:02		06:38 (B11)	05:42		04:42		04:27	21:00 (B22)
	16:34	29	13:08 (B25)	17:43	2	15:42 (B24)	18:43	16	06:54 (B11)	20:47		21:45		22:10	19 21:19 (B22)
28	08:22		12:41 (B25)	07:13			05:59		06:38 (B11)	05:40		04:41		04:28	21:01 (B22)
	16:36	35	15:45 (B24)	17:45			18:45	14	06:52 (B11)	20:49		21:46		22:10	17 21:18 (B22)
29	08:20		12:44 (B25)				06:57		07:40 (B11)	05:37		04:40		04:29	21:02 (B22)
	16:39	37	15:49 (B24)				19:47	10	07:50 (B11)	20:51		21:48		22:10	17 21:19 (B22)
30	08:18		12:46 (B25)				06:54			05:35		04:38		04:29	21:03 (B22)
	16:41	35	15:50 (B24)				19:49			20:53		21:49		22:09	16 21:19 (B22)
31	08:16		15:28 (B24)				06:51					04:37			
	16:43	24	15:52 (B24)				19:51					21:51			
Potential sun hours	235			266			366			426		508		528	
Total, worst case		1314			921			515							402
Sun reduction		0.13			0.20			0.41							0.56
Oper. time red.		0.98			0.98			0.98							0.98
Wind dir. red.		0.64			0.66			0.65							0.61
Total reduction		0.08			0.13			0.26							0.33
Total, real		110			120			136							134

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Mež vidi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (71)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August		September			October			November			December		
1	04:30		21:03 (B22)	05:16		06:17			07:17		18:00 (B14)	07:22		14:51 (B24)	08:24		12:07 (B25)
	22:09	14	21:17 (B22)	21:28		20:14			18:54	22	18:22 (B14)	16:36	41	15:32 (B24)	15:45	47	12:54 (B25)
2	04:31		21:04 (B22)	05:18		06:19			07:19		18:01 (B14)	07:25		14:51 (B24)	08:26		12:06 (B25)
	22:08	13	21:17 (B22)	21:26		20:11			18:51	19	18:20 (B14)	16:34	40	15:31 (B24)	15:44	48	12:54 (B25)
3	04:32		21:06 (B22)	05:19		06:21			07:21		18:02 (B14)	07:27		14:52 (B24)	08:27		12:07 (B25)
	22:08	10	21:16 (B22)	21:24		20:09			18:48	16	18:18 (B14)	16:32	39	15:31 (B24)	15:43	47	12:54 (B25)
4	04:33		21:08 (B22)	05:21		06:23			07:23		18:05 (B14)	07:29		14:52 (B24)	08:29		12:07 (B25)
	22:07	6	21:14 (B22)	21:21		20:06			18:46	10	18:15 (B14)	16:29	38	15:30 (B24)	15:42	48	12:55 (B25)
5	04:34			05:23		06:25			07:25			07:31		14:52 (B24)	08:31		12:08 (B25)
	22:07			21:19		20:03			18:43			16:27	37	15:29 (B24)	15:42	48	12:56 (B25)
6	04:35			05:25		06:27			07:27			07:33		14:54 (B24)	08:32		12:08 (B25)
	22:06			21:17		20:01			18:40			16:25	35	15:29 (B24)	15:41	49	12:57 (B25)
7	04:36			05:27		06:29			07:29			07:35		14:54 (B24)	08:34		12:08 (B25)
	22:05			21:15		19:58			18:38			16:23	34	15:28 (B24)	15:40	48	12:56 (B25)
8	04:37			05:29		06:31			07:31			07:38		14:56 (B24)	08:35		12:09 (B25)
	22:04			21:13		19:55			18:35			16:21	32	15:28 (B24)	15:40	48	12:57 (B25)
9	04:38			05:31		06:33			07:34			07:40		14:57 (B24)	08:36		12:09 (B25)
	22:03			21:11		19:53			18:32			16:19	29	15:26 (B24)	15:39	48	12:57 (B25)
10	04:39			05:33		06:35			07:36			07:42		14:57 (B24)	08:38		12:10 (B25)
	22:02			21:08		19:50			18:30			16:17	28	15:25 (B24)	15:39	48	12:58 (B25)
11	04:41			05:35		06:37			07:38			07:44		15:00 (B24)	08:39		12:10 (B25)
	22:01			21:06		19:47			18:27			16:15	24	15:24 (B24)	15:38	48	12:58 (B25)
12	04:42			05:37		06:39			07:40			07:46		12:18 (B25)	08:40		12:10 (B25)
	22:00			21:04		19:45			18:25			16:13	35	15:22 (B24)	15:38	48	12:58 (B25)
13	04:43			05:39		06:41			07:42			07:48		12:16 (B25)	08:41		12:11 (B25)
	21:59			21:01		19:42			18:22			16:11	37	15:21 (B24)	15:38	48	12:59 (B25)
14	04:45			05:41		06:43		07:31 (B11)	07:44			07:51		12:13 (B25)	08:42		12:11 (B25)
	21:58			20:59		19:39	9	07:40 (B11)	18:19			16:09	35	15:17 (B24)	15:38	49	13:00 (B25)
15	04:46			05:43		06:45		07:29 (B11)	07:46		16:09 (B24)	07:53		12:11 (B25)	08:44		12:12 (B25)
	21:56			20:57		19:37	13	07:42 (B11)	18:17	10	16:19 (B24)	16:08	29	12:40 (B25)	15:38	48	13:00 (B25)
16	04:48			05:45		06:47		07:27 (B11)	07:48		16:05 (B24)	07:55		12:11 (B25)	08:44		12:12 (B25)
	21:55			20:54		19:34	16	07:43 (B11)	18:14	18	16:23 (B24)	16:06	31	12:42 (B25)	15:38	49	13:01 (B25)
17	04:49			05:47		06:49		07:26 (B11)	07:50		16:01 (B24)	07:57		12:09 (B25)	08:45		12:13 (B25)
	21:54			20:52		19:31	18	07:44 (B11)	18:12	24	16:25 (B24)	16:04	34	12:43 (B25)	15:38	48	13:01 (B25)
18	04:51			05:49		06:51		07:52	07:52		15:59 (B24)	07:59		12:08 (B25)	08:46		12:14 (B25)
	21:52			20:49		19:28	27	18:20 (B14)	18:09	27	16:26 (B24)	16:02	36	12:44 (B25)	15:38	48	13:02 (B25)
19	04:52			05:51		06:53		07:25 (B11)	07:54		15:57 (B24)	08:01		12:08 (B25)	08:47		12:13 (B25)
	21:51			20:47		19:26	34	18:23 (B14)	18:07	30	16:27 (B24)	16:01	38	12:46 (B25)	15:38	48	13:01 (B25)
20	04:54			05:53		06:55		07:23 (B11)	07:57		15:56 (B24)	08:03		12:07 (B25)	08:48		12:14 (B25)
	21:49			20:44		19:23	39	18:24 (B14)	18:04	33	16:29 (B24)	15:59	39	12:46 (B25)	15:39	48	13:02 (B25)
21	04:56			05:55		06:57		07:25 (B11)	07:59		15:55 (B24)	08:05		12:06 (B25)	08:48		12:14 (B25)
	21:48			20:42		19:20	39	18:25 (B14)	18:02	35	16:30 (B24)	15:58	41	12:47 (B25)	15:39	48	13:02 (B25)
22	04:57			05:57		06:59		07:27 (B11)	08:01		15:53 (B24)	08:07		12:07 (B25)	08:49		12:15 (B25)
	21:46			20:40		19:18	37	18:25 (B14)	17:59	37	16:30 (B24)	15:56	42	12:49 (B25)	15:39	48	13:03 (B25)
23	04:59			05:59		07:01		07:29 (B11)	08:03		15:53 (B24)	08:09		12:06 (B25)	08:49		12:15 (B25)
	21:44			20:37		19:15	36	18:26 (B14)	17:57	38	16:31 (B24)	15:55	43	12:49 (B25)	15:40	48	13:03 (B25)
24	05:01			06:01		07:03		07:31 (B11)	08:05		15:52 (B24)	08:11		12:06 (B25)	08:50		12:16 (B25)
	21:43			20:34		19:12	33	18:26 (B14)	17:55	39	16:31 (B24)	15:53	44	12:50 (B25)	15:41	48	13:04 (B25)
25	05:03			06:03		07:05		07:33 (B11)	07:07		14:51 (B24)	08:13		12:06 (B25)	08:50		12:16 (B25)
	21:41			20:32		19:10	30	18:26 (B14)	16:52	40	15:31 (B24)	15:52	44	12:50 (B25)	15:41	49	13:05 (B25)
26	05:04			06:05		07:07		17:59 (B14)	07:09		14:51 (B24)	08:15		12:05 (B25)	08:50		12:17 (B25)
	21:39			20:29		19:07	26	18:25 (B14)	16:50	41	15:32 (B24)	15:51	46	12:51 (B25)	15:42	48	13:05 (B25)
27	05:06			06:07		07:09		17:58 (B14)	07:12		14:51 (B24)	08:17		12:05 (B25)	08:51		12:17 (B25)
	21:37			20:27		19:04	27	18:25 (B14)	16:47	41	15:32 (B24)	15:49	46	12:51 (B25)	15:43	48	13:05 (B25)
28	05:08			06:09		07:11		17:58 (B14)	07:14		14:50 (B24)	08:19		12:06 (B25)	08:51		12:18 (B25)
	21:36			20:24		19:02	26	18:24 (B14)	16:45	42	15:32 (B24)	15:48	47	12:53 (B25)	15:44	48	13:06 (B25)
29	05:10			06:11		07:13		17:59 (B14)	07:16		14:51 (B24)	08:20		12:06 (B25)	08:51		12:18 (B25)
	21:34			20:22		18:59	25	18:24 (B14)	16:43	41	15:32 (B24)	15:47	47	12:53 (B25)	15:45	49	13:07 (B25)
30	05:12			06:13		07:15		18:00 (B14)	07:18		14:50 (B24)	08:22		12:07 (B25)	08:51		12:19 (B25)
	21:32			20:19		18:56	23	18:23 (B14)	16:40	42	15:32 (B24)	15:46	47	12:54 (B25)	15:46	48	13:07 (B25)
31	05:14			06:15					07:20		14:50 (B24)				08:51		12:19 (B25)
	21:30			20:16					16:38	41	15:31 (B24)				15:47	48	13:07 (B25)
Potential sun hours	529			469		385			324				247		216		
Total, worst case		43				458			646				1138			1491	
Sun reduction		0.49				0.43			0.26				0.08			0.07	
Oper. time red.		0.98				0.98			0.98				0.98			0.98	
Wind dir. red.		0.61				0.65			0.66				0.65			0.64	
Total reduction		0.29				0.27			0.17				0.05			0.04	
Total, real		13				125			108				60			66	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Muiž nieki (kad. apz. 56960040061) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (61)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	08:43 (B22) 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	08:08 (B22) 15:45
2	08:50 15:49	08:13 16:47	07:08 17:50	08:46 (B22) 19:55	06:46 20:57	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:09 (B22) 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	08:42 (B22) 19:57	06:43 20:58	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:11 (B22) 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	08:36 (B22) 19:59	06:41 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:12 (B22) 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	08:47 (B22) 19:00 (B22)	06:40 20:56	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:14 (B22) 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	08:44 (B22) 19:02 (B22)	06:40 20:58	04:31 21:59	04:35 22:06	05:25 21:27	06:27 20:01	07:27 18:40	07:33 16:25	08:17 (B22) 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	08:42 (B22) 19:04 (B22)	06:40 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 20:06	07:30 18:38	07:36 16:23	08:29 (B22) 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	08:41 (B22) 19:06 (B22)	06:30 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 20:03	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	08:39 (B22) 19:07 (B22)	06:28 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 20:03	07:34 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	08:38 (B22) 19:09 (B22)	06:25 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 20:03	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	08:38 (B22) 19:10 (B22)	06:22 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 20:06	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:05	07:52 17:10	06:42 18:11	08:36 (B22) 19:12 (B22)	06:20 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 20:06	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	08:36 (B22) 19:11 (B22)	06:17 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 20:03	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	08:35 (B22) 19:11 (B22)	06:15 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	08:35 (B22) 19:12 (B22)	06:12 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	08:34 (B22) 19:12 (B22)	06:09 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	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	08:35 (B22) 19:12 (B22)	06:07 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	08:37 16:16	07:38 17:23	06:26 18:24	08:34 (B22) 19:12 (B22)	06:04 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	08:35 (B22) 19:12 (B22)	06:02 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	08:34 (B22) 19:12 (B22)	05:59 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 16:04	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	08:35 (B22) 19:12 (B22)	05:57 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 16:02	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	08:35 (B22) 19:11 (B22)	05:54 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 16:01	08:49 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	08:36 (B22) 19:11 (B22)	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 16:01	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	08:36 (B22) 19:09 (B22)	05:49 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 16:01	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	08:37 (B22) 19:09 (B22)	05:47 21:42	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 16:01	08:51 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	08:38 (B22) 19:07 (B22)	05:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 16:01	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	08:39 (B22) 19:05 (B22)	05:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:47	08:17 16:01	08:51 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	08:41 (B22) 19:04 (B22)	05:40 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 17:45	08:19 16:01	08:51 15:44
29	08:20 16:39	07:11 17:47	05:57 19:47	08:42 (B22) 19:05 (B22)	05:37 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 16:01	08:51 15:45
30	08:18 16:41	07:03 17:54	05:54 19:49	08:43 (B22) 19:06 (B22)	05:35 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:22 16:01	08:51 15:46
31	08:17 16:43	07:01 17:51	05:51 19:51	08:44 (B22) 19:07 (B22)	05:31 21:51	04:27 22:10	05:14 21:30	06:15 20:17	07:20 16:38	08:19 17:41	08:24 16:01	08:51 15:47
Potential sun hours	235	266	366		426	508	529	469	385	324	247	216
Total, worst case		750		28						653	134	
Sun reduction		0.20		0.41						0.26	0.08	
Oper. time red.		0.98		0.98						0.98	0.98	
Wind dir. red.		0.61		0.61						0.61	0.61	
Total reduction		0.12		0.24						0.15	0.05	
Total, real		90		7						101	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Muiž nieki (kad. apz. 76860010011) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (191)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

	January	February	March	April	May	June	July	August	September	October	November	December				
1	08:50	08:14	15:35 (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	21	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	15:36 (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	20	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	15:37 (B3)	07:05	06:43	05:27	04:33	04:31	05:19	06:21	07:21	07:27	08:27			
	15:50	16:49	19	15:56 (B3)	17:51	19:57	20:59	21:55	22:08	21:23	20:08	18:48	16:31	15:43		
4	08:49	08:08	15:38 (B3)	07:03	06:40	05:25	04:32	04:32	05:21	06:23	07:23	07:29	15:13 (B3)	08:29		
	15:51	16:51	17	15:55 (B3)	17:54	19:59	21:01	21:56	22:07	21:21	20:06	18:45	16:29	7	15:20 (B3)	15:42
5	08:49	08:06	15:38 (B3)	07:00	06:38	05:23	04:31	04:33	05:23	06:25	07:25	07:31	15:10 (B3)	08:30		
	15:53	16:54	15	15:53 (B3)	17:56	20:01	21:03	21:58	22:06	21:19	20:03	18:42	16:27	12	15:22 (B3)	15:41
6	08:49	08:04	15:41 (B3)	06:57	06:35	05:21	04:30	04:34	05:25	06:27	07:27	07:33	15:09 (B3)	08:32		
	15:54	16:56	11	15:52 (B3)	17:58	20:03	21:05	21:59	22:06	21:17	20:00	18:40	16:25	15	15:24 (B3)	15:40
7	08:48	08:02	15:44 (B3)	06:55	06:32	05:18	04:29	04:35	05:27	06:29	07:29	07:35	15:08 (B3)	08:33		
	15:56	16:58	6	15:50 (B3)	18:00	20:05	21:07	22:00	22:05	21:15	19:58	18:37	16:22	17	15:25 (B3)	15:40
8	08:47	08:00		06:52	06:30	05:16	04:29	04:36	05:29	06:31	07:31	07:37	15:06 (B3)	08:35		
	15:57	17:00		18:02	20:07	21:09	22:01	22:04	21:13	19:55	18:35	16:20	20	15:26 (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	15:06 (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	21	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	15:06 (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	21	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	15:06 (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	22	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	15:06 (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	15:28 (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	15:06 (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	21	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	22	15:28 (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	22	15:28 (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	15:08 (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	15:28 (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	15:37 (B3)	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	3	15:40 (B3)	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	15:37 (B3)	07:30	06:18	05:56	04:51	04:25	04:55	05:55	06:57	07:58	08:05	15:12 (B3)	08:48		
	16:21	6	15:43 (B3)	17:29	18:30	20:34	21:34	22:10	21:48	20:42	19:20	18:01	15:57	7	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	15:13 (B3)	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	4	15:17 (B3)	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	15:15	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	15:10	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	08:07	08:13	15:10	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	15:34 (B3)	07:18	06:04	05:44	04:43	04:26	05:04	06:05	07:07	08:09	08:15	15:10	08:50		
	16:32	20	15:54 (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	08:11	08:17	15:10	08:51		
	16:34	22	15:55 (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	08:13	08:19	15:10	08:51		
	16:36	22	15:55 (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	15:34 (B3)		06:56	05:37	04:39	04:28	05:09	06:11	07:13	08:15	08:20	15:10	08:51		
	16:38	22	15:56 (B3)		19:46	20:51	21:48	22:09	21:33	20:21	18:58	16:42	15:46	15:44		
30	08:18	15:34 (B3)		06:54	05:34	04:38	04:29	05:11	06:13	07:15	08:17	08:22	15:10	08:51		
	16:40	22	15:56 (B3)		19:48	20:53	21:49	22:09	21:32	20:19	18:56	16:40	15:45	15:45		
31	08:16	15:34 (B3)		06:51		04:36		05:13	06:15		07:20		15:10	08:51		
	16:42	22	15:56 (B3)		19:50	21:51		21:30	20:16		16:38		15:46	15:46		
Potential sun hours	235	266		366	426	508	529	529	469	385	324	247		216		
Total, worst case	196	109											310			
Sun reduction	0.13	0.20											0.08			
Oper. time red.	0.98	0.98											0.98			
Wind dir. red.	0.66	0.66											0.66			
Total reduction	0.09	0.13											0.05			
Total, real	17	14										16				

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Malkalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (64)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Masanpurvs - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (192)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (46)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
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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)	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 4 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (44)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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) []

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Operational time

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

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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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) []

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Operational time

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

	January	February	March	April	May	June	July	August	September	October	November	December
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3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 8 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (90)

Assumptions for shadow calculations

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

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4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:40 15:38
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
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
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28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
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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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51	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	22:09	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	15:43
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	07:34	08:32
	15:55	16:57	17:59	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	05:28	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	21:09	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	21:26	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	04:26	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	08:38	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	21:52	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	21:37	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	18:36	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	15:42
26	08:26	07:18	06:05	05:45	04:44	04:27	05:05	06:05	07:07	07:10	08:15	08:51
	16:32	17:41	18:41	20:45	21:43	22:10	21:39	20:30	19:07	16:50	15:51	15:42
27	08:24	07:16	06:02	05:42	04:43	04:28	05:07	06:07	07:09	07:12	08:17	08:51
	16:35	17:43	18:43	20:47	21:45	22:10	21:38	20:27	19:04	16:48	15:50	15:43
28	08:22	07:13	06:00	05:40	04:41	04:28	05:08	06:09	07:11	07:14	08:19	08:51
	16:37	17:46	18:45	20:49	21:47	22:10	21:36	20:24	19:02	16:45	15:48	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)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ogu purvs - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (103)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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) []

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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

	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
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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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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
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19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:26 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:26 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
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
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27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:08 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
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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.												
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Table layout: For each day in each month the following matrix apply

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

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ozolmuiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (148)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
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6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	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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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ozolsalina - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (106)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
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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 05:23/4.0.531

SHADOW - Calendar

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

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:16 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: OŠ ini (kad. apz. 76860060068006) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (223)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
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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
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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
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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	08:17 15:49	08:50 15:43
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Total, worst case												
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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 05:23/4.0.531

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) []

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Operational time

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

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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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
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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	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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
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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	06:22 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 05:23/4.0.531

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
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	07:51 (B18) 16:56 (B22)	06:49 19:53	07:18 (B15) 20:55
2	08:50 15:49	08:13 16:47	07:08 17:50	07:51 (B18) 16:54 (B22)	06:46 19:55	07:16 (B15) 20:57
3	08:50 15:51	08:11 16:50	07:06 17:52	07:52 (B18) 16:53 (B22)	06:43 19:57	07:15 (B15) 20:59
4	08:50 15:52	08:09 16:52	07:03 17:54	07:53 (B18) 16:51 (B22)	06:41 19:59	07:15 (B15) 21:01
5	08:49 15:53	08:07 16:54	07:00 17:56	07:53 (B18) 16:48 (B22)	06:38 20:01	07:14 (B15) 21:04
6	08:49 15:55	08:05 16:56	06:58 17:58	07:55 (B18) 08:11 (B18)	06:35 20:03	07:15 (B15) 21:06
7	08:48 15:56	08:03 16:58	06:55 18:00	07:58 (B18) 08:07 (B18)	06:33 20:05	07:14 (B15) 21:08
8	08:47 15:58	08:00 17:01	06:53 18:03	08:07 (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	07:17 (B15) 21:16
12	08:44 16:04	07:52 17:10	06:42 18:11		06:20 20:16	07:17 (B15) 21:18
13	08:43 16:06	07:49 17:12	06:39 18:13		06:17 20:18	07:20 (B15) 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15		06:14 20:20	07:32 (B15) 21:22
15	08:41 16:10	07:45 17:16	06:34 18:17		06:12 20:22	05:02 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	16:41 (B22)	06:07 20:26	04:59 21:27
18	08:37 16:16	07:38 17:23	06:26 18:24	16:50 (B22)	06:04 20:28	04:57 21:29
19	08:36 16:18	07:35 17:25	06:23 18:26	16:52 (B22)	06:02 20:30	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	16:55 (B22)	05:59 20:32	04:53 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	08:00 (B18)	05:57 20:35	04:52 21:35
22	08:32 16:24	07:28 17:32	06:15 18:32	16:58 (B22)	05:54 20:37	04:50 21:36
23	08:30 16:26	07:26 17:34	06:13 18:34	16:57 (B22)	05:52 20:39	04:48 21:38
24	08:29 16:28	07:23 17:36	06:10 18:36	16:58 (B22)	05:49 20:41	04:47 21:40
25	08:27 16:30	07:21 17:39	06:07 18:38	16:58 (B22)	05:47 20:43	04:45 21:42
26	08:25 16:32	07:18 17:41	06:05 18:40	16:57 (B22)	05:44 20:45	04:44 21:43
27	08:24 16:34	07:16 17:43	06:02 18:42	16:58 (B22)	05:42 20:47	04:42 21:45
28	08:22 16:36	07:13 17:45	05:59 18:45	16:57 (B22)	05:39 20:49	04:41 21:46
29	08:20 16:38		06:57 19:47	16:57 (B22)	05:37 20:51	04:39 21:48
30	08:18 16:41		06:54 19:49		05:35 20:53	04:38 21:50
31	08:16 16:43		06:51 19:51		05:33 20:55	04:37 21:51
Potential sun hours	235	266	366		426	508
Total, worst case		449	290		299	121
Sun reduction		0.20	0.41		0.50	0.57
Oper. time red.		0.98	0.98		0.98	0.98
Wind dir. red.		0.65	0.65		0.66	0.67
Total reduction		0.13	0.26		0.32	0.37
Total, real		57	75		96	412

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (118)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09 39	05:28 (B4) 06:07 (B4) 21:28	06:17 20:14 20	07:15 (B15) 07:35 (B15) 18:53	07:17 18:53 16:36	08:24 15:45 15:45
2	04:31 22:08 38	05:29 (B4) 06:07 (B4) 21:26	06:19 20:11 22	07:14 (B15) 07:36 (B15) 18:51	07:19 18:51 16:34	08:26 15:44 15:44
3	04:32 22:08 37	05:30 (B4) 06:07 (B4) 21:24	06:21 20:09 24	07:13 (B15) 07:37 (B15) 18:48	07:21 18:48 16:31	08:27 15:43 15:43
4	04:32 22:07 37	05:30 (B4) 06:07 (B4) 21:22	06:23 20:06 25	07:12 (B15) 07:37 (B15) 18:45	07:23 18:45 16:29	08:29 15:42 15:42
5	04:33 22:07 36	05:31 (B4) 06:07 (B4) 21:19	06:25 20:03 26	07:10 (B15) 07:36 (B15) 18:43	07:25 18:43 16:27	08:31 15:41 15:41
6	04:35 22:06 35	05:32 (B4) 06:07 (B4) 21:17	06:27 20:01 26	07:10 (B15) 07:36 (B15) 18:40	07:27 18:40 5	08:32 15:41 15:41
7	04:36 22:05 34	05:32 (B4) 06:06 (B4) 21:15	06:29 19:58 27	07:09 (B15) 07:36 (B15) 18:38	07:29 18:38 13	08:34 15:40 15:40
8	04:37 22:04 33	05:33 (B4) 06:06 (B4) 21:13	06:31 19:55 27	07:09 (B15) 07:36 (B15) 18:35	07:31 18:35 17	08:35 15:40 15:40
9	04:38 22:03 32	05:34 (B4) 06:06 (B4) 21:11	06:33 19:53 26	07:09 (B15) 07:35 (B15) 18:32	07:34 18:32 32	08:36 15:39 15:39
10	04:39 22:02 31	05:34 (B4) 06:05 (B4) 21:08	06:35 19:50 26	07:09 (B15) 07:35 (B15) 18:30	07:36 18:30 39	08:38 15:39 15:39
11	04:41 22:01 29	05:35 (B4) 06:04 (B4) 21:06	06:37 19:47 24	07:10 (B15) 07:34 (B15) 18:27	07:38 18:27 43	08:39 15:38 15:38
12	04:42 22:00 27	05:36 (B4) 06:03 (B4) 21:04	06:39 19:45 23	07:10 (B15) 07:33 (B15) 18:25	07:40 18:25 46	08:40 15:38 15:38
13	04:43 21:59 26	05:37 (B4) 06:03 (B4) 21:01	06:41 19:42 20	07:11 (B15) 07:31 (B15) 18:22	07:42 18:22 48	08:41 15:38 15:38
14	04:45 21:58 24	05:38 (B4) 06:02 (B4) 20:59	06:43 19:39 16	07:13 (B15) 07:29 (B15) 18:19	07:44 18:19 49	08:43 15:38 15:38
15	04:46 21:56 22	05:39 (B4) 06:01 (B4) 20:57	06:45 19:37 11	07:15 (B15) 07:26 (B15) 18:17	07:46 18:17 50	08:44 15:38 15:38
16	04:48 21:55 18	05:42 (B4) 06:00 (B4) 20:54	06:47 19:34 17	07:18 (B15) 07:24 (B15) 18:14	07:48 18:14 51	08:45 15:38 15:38
17	04:49 21:54 14	05:43 (B4) 05:57 (B4) 20:52	06:49 19:31 17	07:20 (B15) 07:22 (B15) 18:12	07:50 18:12 49	08:46 15:38 15:38
18	04:51 21:52 8	05:47 (B4) 05:55 (B4) 20:49	06:51 19:28 17	07:22 (B15) 07:24 (B15) 18:10	07:52 18:10 49	08:46 15:38 15:38
19	04:52 21:51 17	05:51 20:47 17	06:53 19:26 17	07:25 (B15) 07:26 (B15) 18:07	07:54 18:07 45	08:47 15:38 15:38
20	04:54 21:49 17	05:53 20:44 17	06:55 19:23 17	07:27 (B15) 07:28 (B15) 18:04	07:57 18:04 42	08:48 15:38 15:38
21	04:56 21:48 17	05:55 20:42 17	06:57 19:20 17	07:29 (B15) 07:30 (B15) 18:02	07:59 18:02 36	08:48 15:38 15:38
22	04:57 21:46 17	05:57 20:40 17	06:59 19:18 17	07:31 (B15) 07:32 (B15) 18:00	08:01 18:00 30	08:49 15:39 15:39
23	04:59 21:44 17	05:59 20:37 17	07:01 19:15 17	07:34 (B15) 07:35 (B15) 18:00	08:03 18:00 18	08:49 15:40 15:40
24	05:01 21:43 17	06:01 20:34 17	07:03 19:12 17	07:36 (B15) 07:37 (B15) 18:00	08:05 18:00 14	08:50 15:40 15:40
25	05:03 21:41 17	06:03 20:32 17	07:05 19:10 17	07:38 (B15) 07:39 (B15) 18:00	08:07 18:00 8	08:50 15:41 15:41
26	05:04 21:39 17	06:05 20:29 17	07:07 19:07 17	07:40 (B15) 07:41 (B15) 18:00	08:09 18:00 15:51	08:50 15:42 15:42
27	05:06 21:37 17	06:07 20:27 17	07:09 19:04 17	07:42 (B15) 07:43 (B15) 18:00	08:11 18:00 15:49	08:51 15:43 15:43
28	05:08 21:36 17	06:09 20:24 17	07:11 19:02 17	07:44 (B15) 07:45 (B15) 18:00	08:13 18:00 15:48	08:51 15:44 15:44
29	05:10 21:34 17	06:11 20:22 17	07:13 18:59 17	07:46 (B15) 07:47 (B15) 18:00	08:15 18:00 15:47	08:51 15:44 15:44
30	05:12 21:32 17	06:13 20:19 17	07:15 18:56 17	07:48 (B15) 07:49 (B15) 18:00	08:17 18:00 15:46	08:51 15:45 15:45
31	05:14 21:30 17	06:15 20:16 17	07:17 (B15) 07:34 (B15) 17	07:50 (B15) 07:51 (B15) 18:00	08:19 18:00 15:47	08:51 15:47 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	520	29	343	684		
Sun reduction	0.49	0.50	0.43	0.26		
Oper. time red.	0.98	0.98	0.98	0.98		
Wind dir. red.	0.67	0.66	0.66	0.65		
Total reduction	0.32	0.32	0.27	0.16		
Total, real	168	9	94	112		

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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June			
1	08:51 15:48	08:15 16:45	07:11 17:47	07:52 (B18) 16:54 (B22)	06:49 19:53	07:18 (B15) 20:55	04:36 21:52	05:28 (B4) 06:02 (B4)	
2	08:50 15:49	08:13 16:47	07:08 17:50	07:51 (B18) 16:52 (B22)	06:46 19:55	07:17 (B15) 20:57	04:35 21:54	05:28 (B4) 06:02 (B4)	
3	08:50 15:51	08:11 16:50	07:06 17:52	07:53 (B18) 16:51 (B22)	06:43 19:57	07:16 (B15) 20:59	04:34 21:55	05:27 (B4) 06:03 (B4)	
4	08:50 15:52	08:09 16:52	07:03 17:54	07:53 (B18) 16:48 (B22)	06:41 19:59	07:16 (B15) 21:01	04:33 21:56	05:27 (B4) 06:03 (B4)	
5	08:49 15:53	08:07 16:54	07:00 17:56	07:54 (B18) 08:11 (B18)	06:38 20:01	07:15 (B15) 21:04	04:32 21:58	05:27 (B4) 06:05 (B4)	
6	08:49 15:55	08:05 16:56	06:58 17:58	07:56 (B18) 08:10 (B18)	06:35 20:03	07:16 (B15) 21:06	04:31 21:59	05:27 (B4) 06:05 (B4)	
7	08:48 15:56	08:03 16:58	06:55 18:00	07:59 (B18) 08:06 (B18)	06:33 20:05	07:16 (B15) 21:08	04:30 22:00	05:26 (B4) 06:05 (B4)	
8	08:47 15:58	08:00 17:01	06:53 18:03		06:30 20:07	07:15 (B15) 21:10	04:29 22:01	05:27 (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	05:26 (B4) 06:06 (B4)	
10	08:46 16:01	07:56 17:05	06:47 18:07		06:25 20:12	07:17 (B15) 21:14	04:28 22:03	05:27 (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	05:26 (B4) 06:07 (B4)	
12	08:44 16:04	07:52 17:10	06:42 18:11		06:20 20:16	07:20 (B15) 21:18	04:27 22:05	05:26 (B4) 06:07 (B4)	
13	08:43 16:06	07:49 17:12	06:39 18:13		06:17 20:18	07:24 (B15) 21:20	04:26 22:06	05:27 (B4) 06:08 (B4)	
14	08:42 16:08	07:47 17:14	06:37 18:15		06:14 20:20	07:30 (B15) 21:22	04:26 22:07	05:26 (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	05:26 (B4) 06:08 (B4)	
16	08:40 16:12	07:42 17:19	06:31 18:19	16:40 (B22)	06:09 20:24	05:00 21:25	04:25 22:08	05:27 (B4) 06:09 (B4)	
17	08:39 16:14	07:40 17:21	06:29 18:22	16:37 (B22)	06:07 20:26	04:59 21:27	04:25 22:08	05:27 (B4) 06:09 (B4)	
18	08:37 16:16	07:38 17:23	06:26 18:24	16:35 (B22)	06:04 20:28	04:57 21:29	04:25 22:09	05:27 (B4) 06:09 (B4)	
19	08:36 16:18	07:35 17:25	06:23 18:26	08:04 (B18)	06:02 20:30	04:55 21:31	04:25 22:09	05:27 (B4) 06:09 (B4)	
20	08:35 16:20	07:33 17:28	06:21 18:28	08:00 (B18)	05:59 20:32	04:53 21:33	04:25 22:10	05:27 (B4) 06:10 (B4)	
21	08:33 16:22	07:31 17:30	06:18 18:30	16:55 (B22)	05:57 20:35	04:52 21:35	04:25 22:10	05:27 (B4) 06:10 (B4)	
22	08:32 16:24	07:28 17:32	06:15 18:32	07:55 (B18)	05:54 20:37	04:50 21:36	04:25 22:10	05:28 (B4) 06:11 (B4)	
23	08:30 16:26	07:26 17:34	06:13 18:34	07:54 (B18)	05:52 20:39	04:48 21:38	05:40 (B4) 05:48 (B4)	04:26 22:10	05:28 (B4) 06:11 (B4)
24	08:29 16:28	07:23 17:36	06:10 18:36	07:53 (B18)	05:49 20:41	04:47 21:40	05:37 (B4) 05:51 (B4)	04:26 22:10	05:28 (B4) 06:10 (B4)
25	08:27 16:30	07:21 17:39	06:07 18:38	07:52 (B18)	05:47 20:43	04:45 21:42	05:35 (B4) 05:54 (B4)	04:26 22:10	05:29 (B4) 06:11 (B4)
26	08:25 16:32	07:18 17:41	06:05 18:40	07:52 (B18)	05:44 20:45	04:44 21:43	05:33 (B4) 05:55 (B4)	04:27 22:10	05:29 (B4) 06:11 (B4)
27	08:24 16:34	07:16 17:43	06:02 18:42	07:51 (B18)	05:42 20:47	04:42 21:45	05:32 (B4) 05:56 (B4)	04:27 22:10	05:29 (B4) 06:11 (B4)
28	08:22 16:36	07:13 17:45	05:59 18:45	07:52 (B18)	05:39 20:49	04:41 21:46	05:31 (B4) 05:58 (B4)	04:28 22:10	05:29 (B4) 06:11 (B4)
29	08:20 16:38		06:57 19:47	16:55 (B22)	05:37 20:51	04:39 21:48	05:30 (B4) 05:59 (B4)	04:28 22:10	05:30 (B4) 06:11 (B4)
30	08:18 16:41		06:54 19:49		05:35 20:53	04:38 21:50	05:30 (B4) 06:00 (B4)	04:29 22:09	05:31 (B4) 06:12 (B4)
31	08:16 16:43		06:51 19:51		07:19 (B15) 07:41 (B15)	04:37 21:51	05:29 (B4) 06:01 (B4)		
Potential sun hours	235	266	366		426	508		529	
Total, worst case		474	279		286	205		1213	
Sun reduction		0.20	0.41		0.50	0.57		0.56	
Oper. time red.		0.98	0.98		0.98	0.98		0.98	
Wind dir. red.		0.65	0.65		0.66	0.67		0.67	
Total reduction		0.13	0.26		0.32	0.37		0.37	
Total, real		61	72		91	76		444	

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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December		
1	04:30		05:30 (B4)	05:16			06:17		07:17 (B15)	07:17			07:22		08:24			
	22:09	41	06:11 (B4)	21:28			20:14	18	07:35 (B15)	18:53			16:36		15:45			
2	04:31		05:31 (B4)	05:17			06:19		07:16 (B15)	07:19			07:25		08:26			
	22:08	40	06:11 (B4)	21:26			20:11	20	07:36 (B15)	18:51			16:34		15:44			
3	04:32		05:31 (B4)	05:19			06:21		07:14 (B15)	07:21			07:27		08:27			
	22:08	40	06:11 (B4)	21:24			20:09	23	07:37 (B15)	18:48			16:31		15:43			
4	04:32		05:32 (B4)	05:21			06:23		07:13 (B15)	07:23			07:29		08:29			
	22:07	39	06:11 (B4)	21:22			20:06	25	07:38 (B15)	18:45			16:29		15:42			
5	04:33		05:33 (B4)	05:23			06:25		07:12 (B15)	07:25			07:31		08:31			
	22:07	38	06:11 (B4)	21:19			20:03	25	07:37 (B15)	18:43			16:27		15:41			
6	04:35		05:33 (B4)	05:25			06:27		07:11 (B15)	07:27			07:33		08:32			
	22:06	38	06:11 (B4)	21:17			20:01	26	07:37 (B15)	18:40			16:25		15:41			
7	04:36		05:34 (B4)	05:27			06:29		07:10 (B15)	07:29		08:32 (B18)	07:35		08:34			
	22:05	37	06:11 (B4)	21:15			19:58	27	07:37 (B15)	18:38	12	08:44 (B18)	16:23		15:40			
8	04:37		05:34 (B4)	05:29			06:31		07:10 (B15)	07:31		08:30 (B18)	07:38		08:35			
	22:04	37	06:11 (B4)	21:13			19:55	27	07:37 (B15)	18:35	16	08:46 (B18)	16:21		15:40			
9	04:38		05:35 (B4)	05:31			06:33		07:10 (B15)	07:34		08:28 (B18)	07:40		08:36			
	22:03	36	06:11 (B4)	21:11			19:53	26	07:36 (B15)	18:32	28	17:21 (B22)	16:19		15:39			
10	04:39		05:35 (B4)	05:33			06:35		07:10 (B15)	07:36		08:27 (B18)	07:42		08:38			
	22:02	35	06:10 (B4)	21:08			19:50	26	07:36 (B15)	18:30	36	17:24 (B22)	16:17		15:39			
11	04:41		05:36 (B4)	05:35			06:37		07:10 (B15)	07:38		08:26 (B18)	07:44		08:39			
	22:01	33	06:09 (B4)	21:06			19:47	25	07:35 (B15)	18:27	42	17:26 (B22)	16:15		15:38			
12	04:42		05:36 (B4)	05:37			06:39		07:11 (B15)	07:40		08:25 (B18)	07:46		08:40			
	22:00	33	06:09 (B4)	21:04			19:45	23	07:34 (B15)	18:25	44	17:26 (B22)	16:13		15:38			
13	04:43		05:38 (B4)	05:39			06:41		07:11 (B15)	07:42		08:24 (B18)	07:48		08:41			
	21:59	31	06:09 (B4)	21:01			19:42	22	07:33 (B15)	18:22	48	17:27 (B22)	16:11		15:38			
14	04:45		05:38 (B4)	05:41			06:43		07:13 (B15)	07:44		08:24 (B18)	07:51		08:43			
	21:58	30	06:08 (B4)	20:59			19:39	18	07:31 (B15)	18:19	49	17:27 (B22)	16:09		15:38			
15	04:46		05:39 (B4)	05:43			06:45		07:14 (B15)	07:46		08:24 (B18)	07:53		08:44			
	21:56	28	06:07 (B4)	20:57			19:37	15	07:29 (B15)	18:17	50	17:28 (B22)	16:07		15:38			
16	04:48		05:41 (B4)	05:45			06:47		07:17 (B15)	07:48		08:24 (B18)	07:55		08:45			
	21:55	26	06:07 (B4)	20:54			19:34	8	07:25 (B15)	18:14	51	17:28 (B22)	16:06		15:38			
17	04:49		05:42 (B4)	05:47			06:49			07:50		08:24 (B18)	07:57		08:45			
	21:54	23	06:05 (B4)	20:52			19:31			18:12	50	17:28 (B22)	16:04		15:38			
18	04:51		05:44 (B4)	05:49			06:51			07:52		08:24 (B18)	07:59		08:46			
	21:52	20	06:04 (B4)	20:49			19:28			18:09	49	17:27 (B22)	16:02		15:38			
19	04:52		05:45 (B4)	05:51			06:53			07:54		08:25 (B18)	08:01		08:47			
	21:51	17	06:02 (B4)	20:47			19:26			18:07	47	17:27 (B22)	16:01		15:38			
20	04:54		05:48 (B4)	05:53			06:55			07:57		08:27 (B18)	08:03		08:48			
	21:49	12	06:00 (B4)	20:45			19:23			18:04	43	17:27 (B22)	15:59		15:38			
21	04:56			05:55			06:57			07:59		08:29 (B18)	08:05		08:48			
	21:48			20:42			19:20			18:02	38	17:26 (B22)	15:57		15:39			
22	04:57			05:57			06:59			08:01		08:31 (B18)	08:07		08:49			
	21:46			20:40			19:18			17:59	31	17:25 (B22)	15:56		15:39			
23	04:59			05:59			07:01			08:03		17:04 (B22)	08:09		08:49			
	21:44			20:37			19:15			17:57	20	17:24 (B22)	15:55		15:40			
24	05:01			06:01			07:03			08:05		17:05 (B22)	08:11		08:50			
	21:43			20:34			19:12			17:54	17	17:22 (B22)	15:53		15:40			
25	05:03			06:03			07:05			07:07		16:07 (B22)	08:13		08:50			
	21:41			20:32			19:10			16:52	12	16:19 (B22)	15:52		15:41			
26	05:04			06:05			07:07			07:09		16:12 (B22)	08:15		08:50			
	21:39			20:29			19:07			16:50	4	16:16 (B22)	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			07:13			07:16			08:21		08:51			
	21:34			20:22			18:59			16:43			15:47		15:44			
30	05:12			06:13			07:15			07:18			08:22		08:51			
	21:32			20:19		7	07:30 (B15)			16:40			15:46		15:45			
31	05:14			06:15			07:20 (B15)			07:20					08:51			
	21:30			20:16		13	07:33 (B15)			16:38					15:47			
Potential sun hours	529			469			385			324			247		216			
Total, worst case		634			20		354			687								
Sun reduction		0.49			0.50		0.43			0.26								
Oper. time red.		0.98			0.98		0.98			0.98								
Wind dir. red.		0.67			0.66		0.66			0.65								
Total reduction		0.32			0.32		0.27			0.16								
Total, real		205			6		97			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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:08 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
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Total, worst case												
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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) []

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Operational time

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6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
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Total, worst case												
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Table layout: For each day in each month the following matrix apply

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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 05:23/4.0.531

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) []

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Operational time

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
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3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
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Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

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) []

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

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7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
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31	08:17 16:43		06:51 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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

Shadow receptor: Pumpuri (kad. apz. 76860060095) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (198)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Purvini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (20)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:56	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:58	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:50	08:11 16:49	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:56	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:25 21:02	04:32 21:57	04:32 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:50 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:34 16:25	08:33 15:41
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:02	04:37 22:05	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	05:14 21:12	04:28 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
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11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:02	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Pucsilavas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (193)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:43
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:24 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:46 16:00	07:58 17:03	06:50 18:05	06:28 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:15	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Rasas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (94)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Robež nieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (220)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Rudzati - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (139)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	07:14 (B14) 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	07:04 (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	05:20 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	05:22 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	05:24 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	07:04 (B14) 21:06	05:21 21:59	04:31 22:06	05:26 21:17	05:26 20:01	07:00 (B14) 18:40	07:28 16:25	07:33 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	07:04 (B14) 21:08	05:19 22:00	04:30 22:05	05:27 21:15	05:27 19:58	06:59 (B14) 18:38	07:30 16:23	07:36 15:40
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	05:29 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	05:31 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	05:33 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	07:05 (B14) 21:16	05:11 22:04	04:28 22:01	05:35 21:06	05:35 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	07:05 (B14) 21:18	05:09 22:05	04:27 22:00	05:37 21:04	05:37 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	07:07 (B14) 21:20	05:07 22:06	04:27 21:59	05:39 21:02	05:39 19:42	07:10 (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	07:09 (B14) 21:22	05:05 22:07	04:26 21:58	05:41 20:59	05:41 19:39	07:13 (B14) 18:20	07:44 16:10	07:51 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	07:17 (B14) 21:24	05:03 22:07	04:26 21:57	05:43 20:57	05:43 19:37	07:14 (B14) 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	04:26 22:08	04:48 21:55	05:45 20:54	05:45 19:34	07:15 (B14) 18:15	07:48 16:06	07:55 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	05:00 21:27	04:26 22:08	04:50 21:54	05:47 20:52	05:47 19:31	07:16 (B14) 18:12	07:50 16:04	07:57 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	05:49 19:29	07:17 (B14) 18:10	07:53 16:03	07:59 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	05:51 19:26	07:18 (B14) 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	04:25 22:10	04:54 21:49	05:53 20:45	05:53 19:23	07:19 (B14) 18:05	07:57 15:59	08:03 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	05:55 19:21	07:20 (B14) 18:02	07:59 15:58	08:05 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	05:57 19:18	07:21 (B14) 18:00	08:01 15:56	08:07 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	05:59 19:15	07:22 (B14) 18:03	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	06:01 19:12	07:23 (B14) 18:05	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	06:03 19:10	07:24 (B14) 18:07	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	06:05 19:07	07:25 (B14) 18:04	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:38	06:07 20:27	06:07 19:04	07:26 (B14) 18:03	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	06:09 19:02	07:27 (B14) 18:02	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	04:39 21:48	04:29 22:10	05:10 21:34	06:11 20:22	06:11 19:07	07:28 (B14) 18:01	08:21 15:47	08:51 15:45
30	08:19 16:41	07:04 17:49	06:54 18:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	06:13 19:04	07:29 (B14) 18:00	08:22 15:46	08:51 15:46
31	08:17 16:43	07:02 17:51	06:52 18:49	05:34 20:51	04:37 21:51	04:28 22:10	05:14 21:30	06:15 20:17	06:15 19:03	07:30 (B14) 18:00	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case												
Sun reduction			10	266				39	240			
Oper. time red.			0.41	0.50				0.50	0.43			
Wind dir. red.			0.98	0.98				0.98	0.98			
Total reduction			0.66	0.66				0.66	0.66			
Total, real			0.26	0.32				0.32	0.28			
			3	86				13	66			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Raceni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (184)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
1	08:51		13:45 (B22)	08:15		14:00 (B22)	07:11		06:49				05:32		04:36			
	15:48	39	14:24 (B22)	16:45	29	14:29 (B22)	17:47		19:53				20:55		21:53			
2	08:50		13:46 (B22)	08:13		14:02 (B22)	07:08		06:46				05:30		04:35			
	15:49	39	14:25 (B22)	16:47	26	14:28 (B22)	17:50		19:55				20:57		21:54			
3	08:50		13:46 (B22)	08:11		14:04 (B22)	07:06		06:43				05:28		04:34			
	15:51	39	14:25 (B22)	16:50	23	14:27 (B22)	17:52		19:57				20:59		21:55			
4	08:50		13:45 (B22)	08:09		14:07 (B22)	07:03		06:41				05:26		04:33			
	15:52	40	14:25 (B22)	16:52	18	14:25 (B22)	17:54		19:59				21:02		21:57			
5	08:49		13:46 (B22)	08:07		14:11 (B22)	07:00		06:38				05:23		04:32			
	15:53	41	14:27 (B22)	16:54	10	14:21 (B22)	17:56		20:01				21:04		21:58			
6	08:49		13:46 (B22)	08:05			06:58		06:35				05:21		04:31			
	15:55	41	14:27 (B22)	16:56			17:58		20:03				21:06		21:59			
7	08:48		13:47 (B22)	08:03			06:55		06:33				05:19		04:30			
	15:56	40	14:27 (B22)	16:59			18:00		20:05				21:08		22:00			
8	08:47		13:47 (B22)	08:00			06:53		06:30				05:17		04:29			
	15:58	41	14:28 (B22)	17:01			18:03		20:07		4	06:55 (B4)	21:10		22:01			
9	08:47		13:47 (B22)	07:58			06:50		06:27			06:53 (B4)	05:15		04:28			
	15:59	42	14:29 (B22)	17:03			18:05		20:10		9	07:02 (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	42	14:29 (B22)	17:05			18:07		20:12		13	07:03 (B4)	21:14		22:03			
11	08:45		13:48 (B22)	07:54			06:45		06:22			06:48 (B4)	05:10		04:27			
	16:03	42	14:30 (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			06:45 (B4)	05:08		04:27			
	16:04	43	14:30 (B22)	17:10			18:11		20:16		20	07:05 (B4)	21:18		22:05			
13	08:43		13:48 (B22)	07:49			06:39		06:17			06:44 (B4)	05:06		04:26			
	16:06	42	14:30 (B22)	17:12			18:13		20:18		22	07:06 (B4)	21:20		22:06			
14	08:42		13:48 (B22)	07:47			06:37		06:14			06:43 (B4)	05:04		04:26			
	16:08	43	14:31 (B22)	17:14			18:15		20:20		22	07:05 (B4)	21:22		22:07			
15	08:41		13:48 (B22)	07:45			06:34		06:12			06:43 (B4)	05:02		04:26			
	16:10	43	14:31 (B22)	17:17			18:17		20:22		23	07:06 (B4)	21:24		22:07			
16	08:40		13:49 (B22)	07:43			06:31		06:09			06:42 (B4)	05:01		04:25			
	16:12	43	14:32 (B22)	17:19			18:20		20:24		23	07:05 (B4)	21:25		22:08			
17	08:39		13:49 (B22)	07:40			06:29		06:07			06:42 (B4)	04:59		04:25			
	16:14	43	14:32 (B22)	17:21			18:22		20:26		23	07:05 (B4)	21:27		22:08			
18	08:37		13:50 (B22)	07:38			06:26		06:04			06:42 (B4)	04:57		04:25			
	16:16	43	14:33 (B22)	17:23			18:24		20:28		22	07:04 (B4)	21:29		22:09			
19	08:36		13:50 (B22)	07:35			06:23		06:02			06:43 (B4)	04:55		04:25			
	16:18	43	14:33 (B22)	17:25			18:26		20:30		20	07:03 (B4)	21:31		22:09			
20	08:35		13:51 (B22)	07:33			06:21		05:59			06:43 (B4)	04:53		04:25			
	16:20	43	14:34 (B22)	17:28			18:28		20:32		19	07:02 (B4)	21:33		22:10			
21	08:33		13:51 (B22)	07:31			06:18		05:57			06:44 (B4)	04:52		04:25			
	16:22	42	14:33 (B22)	17:30			18:30		20:35		17	07:01 (B4)	21:35		22:10			
22	08:32		13:51 (B22)	07:28			06:15		05:54			06:46 (B4)	04:50		04:25			
	16:24	42	14:33 (B22)	17:32			18:32		20:37		13	06:59 (B4)	21:36		22:10			
23	08:30		13:51 (B22)	07:26			06:13		05:52			06:47 (B4)	04:48		04:26			
	16:26	42	14:33 (B22)	17:34			18:34		20:39		9	06:56 (B4)	21:38		22:10			
24	08:29		13:52 (B22)	07:23			06:10		05:49			04:47	04:26					
	16:28	41	14:33 (B22)	17:37			18:36		20:41			21:40	22:10					
25	08:27		13:53 (B22)	07:21			06:07		05:47			04:45	04:26					
	16:30	41	14:34 (B22)	17:39			18:38		20:43			21:42	22:10					
26	08:25		13:54 (B22)	07:18			06:05		05:44			04:44	04:27					
	16:32	39	14:33 (B22)	17:41			18:40		20:45			21:43	22:10					
27	08:24		13:55 (B22)	07:16			06:02		05:42			04:42	04:27					
	16:34	38	14:33 (B22)	17:43			18:43		20:47			21:45	22:10					
28	08:22		13:56 (B22)	07:13			05:59		05:39			04:41	04:28					
	16:36	37	14:33 (B22)	17:45			18:45		20:49			21:47	22:10					
29	08:20		13:57 (B22)				06:57		05:37			04:39	04:28					
	16:39	35	14:32 (B22)				19:47		20:51			21:48	22:10					
30	08:18		13:58 (B22)				06:54		05:35			04:38	04:29					
	16:41	34	14:32 (B22)				19:49		20:53			21:50	22:09					
31	08:17		13:58 (B22)				06:51					04:37						
	16:43	32	14:30 (B22)				19:51					21:51						
Potential sun hours	235			266			366		426			508		529				
Total, worst case	1255			106					276									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.98			0.98					0.98									
Wind dir. red.	0.66			0.66					0.66									
Total reduction	0.09			0.13					0.32									
Total, real	108			14					89									

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Raceni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (184)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December			
1	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (B4) 17 07:04 (B4)	07:17 18:54	07:23 16:36	08:24 15:45	13:30 (B22) 42 14:12 (B22)	
2	04:31 22:08	05:17 21:26	06:19 20:11	06:49 (B4) 13 07:02 (B4)	07:19 18:51	07:25 16:34	08:26 15:44	13:30 (B22) 42 14:12 (B22)	
3	04:32 22:08	05:19 21:24	06:21 20:09	06:51 (B4) 9 07:00 (B4)	07:21 18:48	07:27 16:31	08:27 15:43	13:30 (B22) 42 14:12 (B22)	
4	04:33 22:07	05:21 21:22	06:23 20:06	06:53 (B4) 4 06:57 (B4)	07:23 18:46	07:29 16:29	08:29 15:42	13:31 (B22) 41 14:12 (B22)	
5	04:34 22:07	05:23 21:19	06:25 20:03		07:25 18:43	07:31 16:27	08:31 15:42	13:32 (B22) 41 14:13 (B22)	
6	04:35 22:06	05:25 21:17	06:27 20:01		07:27 18:40	07:33 16:25	13:40 (B22) 11 13:51 (B22)	08:32 15:41	13:33 (B22) 40 14:13 (B22)
7	04:36 22:05	05:27 21:15	06:29 19:58		07:29 18:38	07:36 16:23	13:36 (B22) 19 13:55 (B22)	08:34 15:40	13:32 (B22) 41 14:13 (B22)
8	04:37 22:04	05:29 21:13	06:31 19:55		07:32 18:35	07:38 16:21	13:34 (B22) 24 13:58 (B22)	08:35 15:40	13:34 (B22) 39 14:13 (B22)
9	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:32	07:40 16:19	13:32 (B22) 27 13:59 (B22)	08:37 15:39	13:34 (B22) 39 14:13 (B22)
10	04:39 22:02	05:33 21:08	06:35 19:50		07:36 18:30	07:42 16:17	13:31 (B22) 29 14:00 (B22)	08:38 15:39	13:35 (B22) 39 14:14 (B22)
11	04:41 22:01	05:35 21:06	06:37 19:47		07:38 18:27	07:44 16:15	13:30 (B22) 32 14:02 (B22)	08:39 15:38	13:35 (B22) 39 14:14 (B22)
12	04:42 22:00	05:37 21:04	06:39 19:45		07:40 18:25	07:46 16:13	13:29 (B22) 34 14:03 (B22)	08:40 15:38	13:36 (B22) 39 14:15 (B22)
13	04:43 21:59	05:39 21:01	06:41 19:42		07:42 18:22	07:49 16:11	13:29 (B22) 35 14:04 (B22)	08:42 15:38	13:37 (B22) 38 14:15 (B22)
14	04:45 21:58	05:41 20:59	06:43 19:39		07:44 18:19	07:51 16:09	13:28 (B22) 37 14:05 (B22)	08:43 15:38	13:37 (B22) 38 14:15 (B22)
15	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17	07:53 16:08	13:27 (B22) 38 14:05 (B22)	08:44 15:38	13:38 (B22) 37 14:15 (B22)
16	04:48 21:55	05:45 20:54	06:47 19:34		07:48 18:14	07:55 16:06	13:27 (B22) 39 14:06 (B22)	08:45 15:38	13:38 (B22) 37 14:15 (B22)
17	04:49 21:54	05:47 20:52	06:49 19:31		07:50 18:12	07:57 16:04	13:26 (B22) 41 14:07 (B22)	08:45 15:38	13:39 (B22) 37 14:16 (B22)
18	04:51 21:52	05:49 20:49	06:51 19:29		07:52 18:09	07:59 16:02	13:26 (B22) 41 14:07 (B22)	08:46 15:38	13:40 (B22) 36 14:16 (B22)
19	04:52 21:51	05:51 20:47	06:53 19:26		07:54 18:07	08:01 16:01	13:26 (B22) 42 14:08 (B22)	08:47 15:38	13:39 (B22) 37 14:16 (B22)
20	04:54 21:49	05:53 20:45	06:55 19:23	06:52 (B4)	07:57 18:04	08:03 15:59	13:26 (B22) 42 14:08 (B22)	08:48 15:39	13:40 (B22) 37 14:17 (B22)
21	04:56 21:48	05:55 20:42	06:57 19:20	06:50 (B4)	07:59 18:02	08:05 15:58	13:26 (B22) 42 14:08 (B22)	08:48 15:39	13:41 (B22) 37 14:18 (B22)
22	04:57 21:46	05:57 20:40	06:59 19:18	06:48 (B4)	08:01 17:59	08:07 15:56	13:27 (B22) 43 14:10 (B22)	08:49 15:39	13:41 (B22) 37 14:18 (B22)
23	04:59 21:45	05:59 20:37	07:01 19:15	06:47 (B4)	08:03 17:57	08:09 15:55	13:27 (B22) 43 14:10 (B22)	08:49 15:40	13:42 (B22) 37 14:19 (B22)
24	05:01 21:43	06:01 20:35	07:03 19:12	06:46 (B4)	08:05 17:55	08:11 15:53	13:27 (B22) 43 14:10 (B22)	08:50 15:40	13:42 (B22) 37 14:19 (B22)
25	05:03 21:41	06:03 20:32	07:05 19:10	06:46 (B4)	08:07 17:53	08:13 15:52	13:27 (B22) 43 14:10 (B22)	08:50 15:41	13:43 (B22) 36 14:19 (B22)
26	05:04 21:39	06:05 20:29	07:07 19:07	06:44 (B4)	08:09 17:51	08:15 15:51	13:27 (B22) 43 14:10 (B22)	08:51 15:42	13:43 (B22) 37 14:20 (B22)
27	05:06 21:37	06:07 20:27	07:09 19:04	06:44 (B4)	08:11 17:49	08:17 15:49	13:28 (B22) 43 14:11 (B22)	08:51 15:43	13:43 (B22) 37 14:20 (B22)
28	05:08 21:36	06:09 20:24	07:11 19:02	06:44 (B4)	08:13 17:47	08:19 15:48	13:28 (B22) 43 14:11 (B22)	08:51 15:44	13:43 (B22) 38 14:21 (B22)
29	05:10 21:34	06:11 20:22	07:13 18:59	06:44 (B4)	08:15 17:46	08:21 15:47	13:29 (B22) 43 14:12 (B22)	08:51 15:45	13:44 (B22) 38 14:22 (B22)
30	05:12 21:32	06:13 20:19	07:15 18:56	06:44 (B4)	08:17 17:44	08:22 15:46	13:29 (B22) 43 14:12 (B22)	08:51 15:46	13:44 (B22) 38 14:22 (B22)
31	05:14 21:30	06:15 20:17	07:17 18:53	06:45 (B4)	08:19 17:43	08:24 15:45	14:12 (B22) 43 14:12 (B22)	08:51 15:47	13:45 (B22) 38 14:23 (B22)
Potential sun hours	529	469	385		324	247	216		
Total, worst case		234	43			920	1191		
Sun reduction		0.50	0.43			0.08	0.07		
Oper. time red.		0.98	0.98			0.98	0.98		
Wind dir. red.		0.66	0.66			0.66	0.66		
Total reduction		0.32	0.27			0.05	0.05		
Total, real		75	12			49	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ruki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (177)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:48 19:53	05:32 20:55	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:02	04:32 21:57	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:36 16:23	08:34 15:40
8	08:48 15:57	08:00 17:01	06:53 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:33 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:26 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:24	04:25 22:07	04:46 21:57	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:22	06:06 20:26	04:58 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:37
18	08:37 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:31 17:30	06:18 18:30	05:56 20:35	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:39
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:30	07:21 17:39	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:51 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:40 21:47	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:47	08:51 15:44
30	08:18 16:40		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:51 15:45
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Salvija - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (56)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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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 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
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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
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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
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Sarkani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (179)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Saulkrasti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (112)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	09:00 (B22) 17:48	07:11 19:53	06:49 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	09:01 (B22) 17:50	07:08 19:55	06:46 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	09:01 (B22) 17:52	07:06 19:57	06:43 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	09:02 (B22) 17:54	07:03 19:59	06:41 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	09:03 (B22) 17:56	07:01 20:01	06:38 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	09:04 (B22) 17:58	06:58 20:03	06:35 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	09:05 (B22) 18:01	06:55 20:06	06:33 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	09:07 (B22) 18:03	06:53 20:08	06:30 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	09:10 (B22) 18:05	06:50 20:10	06:28 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	09:16 (B22) 18:05	06:47 20:12	06:25 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:04 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:50 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:51 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	04:45 21:42	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:48	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	07:09 17:54	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	08:22 15:46	08:51 15:46
31	08:17 16:43	07:01 17:52	05:51 19:51	05:31 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 16:38	07:20 16:38	07:20 16:38	07:20 16:38	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	228	166									400	
Sun reduction	0.13	0.20									0.08	
Oper. time red.	0.98	0.98									0.98	
Wind dir. red.	0.59	0.59									0.59	
Total reduction	0.08	0.12									0.05	
Total, real	17	19									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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Saulites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (136)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April	May	June	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	07:58 (B14) 08:24 (B14)	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	5	07:34 (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	27	07:57 (B14) 08:24 (B14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	10	07:32 (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	27	07:57 (B14) 08:24 (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) 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	28	07:56 (B14) 08:24 (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) 20:01	06:38 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04		07:25 18:43	27	07:56 (B14) 08:23 (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) 20:03	06:36 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01		07:28 18:40	26	07:56 (B14) 08:22 (B14)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	25	07:21 (B14) 20:06	06:33 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58		07:30 18:38	23	07:58 (B14) 08:21 (B14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	27	07:19 (B14) 20:08	06:30 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56		07:32 18:35	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	28	07:19 (B14) 20:10	06:28 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:33	17	08:03 (B14) 08:20 (B14)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	27	07:19 (B14) 20:12	06:25 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50		07:36 18:30	13	08:05 (B14) 08:18 (B14)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	27	07:18 (B14) 20:14	06:22 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48		07:38 18:27	8	08:07 (B14) 08:15 (B14)	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	27	07:19 (B14) 20:16	06:20 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45		07:40 18:25	2	08:09 (B14) 08:11 (B14)	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	26	07:19 (B14) 20:18	06:17 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	24	07:19 (B14) 20:20	06:15 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39		07:44 18:20			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	23	07:20 (B14) 20:22	06:12 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	20	07:21 (B14) 20:24	06:09 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	17	07:22 (B14) 20:26	06:07 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	11	07:24 (B14) 20:28	06:04 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 18:04			08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30		05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21		07:59 18:02			08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32		05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18		08:01 18:00			08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34		05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15		08:03 17:57			08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12		08:05 17:55			08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	9	08:09 (B14) 08:18 (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	16	08:05 (B14) 08:21 (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	19	08:03 (B14) 08:22 (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	22	08:01 (B14) 08:23 (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	24	08:00 (B14) 08:24 (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	25	07:59 (B14) 08:24 (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	08:51 15:47
Potential sun hours	235	266	366		426	508	529	529	469	385		324			247	216
Total, worst case				351						115		244				
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.98						0.98		0.98				
Wind dir. red.				0.62						0.62		0.62				
Total reduction				0.25						0.26		0.16				
Total, real				88						30		38				

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Seglini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (79)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April	May	June	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	07:50 (B14) 08:17 (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	07:50 (B14) 08:16 (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	07:50 (B14) 08:15 (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	22	07:52 (B14) 08:14 (B14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	4	07:26 (B14) 07:30 (B14)	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	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	9	07:24 (B14) 07:33 (B14)	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	06:27 20:01		07:28 18:40	16	07:56 (B14) 08:12 (B14)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	14	07:21 (B14) 07:35 (B14)	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	06:29 19:58		07:30 18:38	12	07:58 (B14) 08:10 (B14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	17	07:18 (B14) 07:35 (B14)	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	06:31 19:56		07:32 18:35	7	08:00 (B14) 08:07 (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 20:10	05:15 21:12	04:29 22:02	04:38 22:03	06:33 19:53		07:34 18:33			07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	24	07:13 (B14) 07:37 (B14)	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	06:35 19:50		07:36 18:30			07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	26	07:11 (B14) 07:37 (B14)	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	06:37 19:48		07:38 18:27			07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	27	07:11 (B14) 07:38 (B14)	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	06:39 19:45		07:40 18:25			07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	27	07:10 (B14) 07:37 (B14)	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	06:41 19:42		07:42 18:22			07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	27	07:10 (B14) 07:36 (B14)	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	06:43 19:39		07:44 18:20			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	26	07:11 (B14) 07:37 (B14)	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	24	07:11 (B14) 07:35 (B14)	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	06:47 19:34		07:48 18:15			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	23	07:11 (B14) 07:34 (B14)	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	06:49 19:31		07:50 18:12			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	21	07:11 (B14) 07:32 (B14)	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	06:51 19:29		07:53 18:09			07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	18	07:13 (B14) 07:31 (B14)	06:02 20:31	04:55 21:31	04:25 22:09	05:51 21:51	06:53 19:26		07:55 18:07			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	15	07:14 (B14) 07:29 (B14)	05:59 20:33	04:54 21:33	04:25 22:10	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	8	07:17 (B14) 07:25 (B14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 20:42	06:57 19:21		07:59 18:02			08:05 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	5	08:04 (B14) 08:09 (B14)	08:01		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	13	08:00 (B14) 08:13 (B14)	08:03		08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	18	07:57 (B14) 08:15 (B14)	08:05		08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	21	07:55 (B14) 08:16 (B14)	07:07		08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	23	07:54 (B14) 08:17 (B14)	07:10		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	24	07:53 (B14) 08:17 (B14)	07:12		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	25	07:52 (B14) 08:17 (B14)	07:14		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	26	07:51 (B14) 08:17 (B14)	07:16		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	27	07:50 (B14) 08:17 (B14)	07:18		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				07:20 16:38		08:51 15:47	
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case			330							182		154				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.98							0.98		0.98				
Wind dir. red.			0.62							0.62		0.62				
Total reduction			0.25							0.26		0.16				
Total, real			82							47		24				

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

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Senlici - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (140)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April	May	June	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	13	07:46 (B14) 07:59 (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	8	07:48 (B14) 07:56 (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			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		07:27 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	5	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	07:08 (B14) 07:15 (B14)	06:20 20:14	05:09 21:16	04:27 22:01	05:37 21:06	06:39 19:47		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	11	07:05 (B14) 07:21 (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 18:15	16	07:02 (B14) 07:22 (B14)	06:15 20:20	05:05 21:22	04:26 22:07	05:41 20:59	06:43 19:39	6	07:53 (B14) 07:59 (B14)			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	20	07:00 (B14) 07:23 (B14)	06:12 20:22	05:03 21:24	04:26 22:07	05:43 20:57	06:45 19:37	14	07:49 (B14) 08:03 (B14)			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	23	06:57 (B14) 07:23 (B14)	06:09 20:24	05:01 21:25	04:26 22:08	05:45 20:54	06:47 19:34	19	07:46 (B14) 08:05 (B14)			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	26	06:56 (B14) 07:24 (B14)	06:07 20:26	04:59 21:27	04:25 22:08	05:47 20:52	06:49 19:31	21	07:45 (B14) 08:06 (B14)			07:50 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	28	06:55 (B14) 07:23 (B14)	06:04 20:28	04:57 21:29	04:25 22:09	05:49 20:50	06:51 19:29	24	07:52 (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	28	06:55 (B14) 07:24 (B14)	06:02 20:31	04:55 21:31	04:25 22:09	05:51 20:47	06:53 19:26	26	07:42 (B14) 08:08 (B14)			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	29	06:54 (B14) 07:24 (B14)	06:00 20:33	04:54 21:33	04:25 22:10	05:53 20:45	06:55 19:23	27	07:41 (B14) 08:08 (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) 07:23 (B14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 20:42	06:57 19:21	28	07:40 (B14) 08:08 (B14)			08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	29	06:54 (B14) 07:22 (B14)	05:54 20:37	04:50 21:37	04:26 22:10	05:57 20:40	06:59 19:18	29	07:39 (B14) 08:08 (B14)			08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	28	06:54 (B14) 07:22 (B14)	05:52 20:39	04:48 21:38	04:26 22:10	05:59 20:37	07:01 19:15	29	07:39 (B14) 08:08 (B14)			08:03 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	27	06:54 (B14) 07:21 (B14)	05:49 20:41	04:47 21:40	04:26 22:10	06:01 20:35	07:03 19:12	29	07:39 (B14) 08:08 (B14)			08:05 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	25	06:55 (B14) 07:20 (B14)	05:47 20:43	04:45 21:42	04:27 22:10	06:03 20:32	07:05 19:10	29	07:38 (B14) 08:07 (B14)			08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	22	06:56 (B14) 07:18 (B14)	05:45 20:45	04:44 21:43	04:27 22:10	06:05 20:30	07:07 19:07	29	07:38 (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	19	06:57 (B14) 07:16 (B14)	05:42 20:47	04:42 21:45	04:28 22:10	06:07 20:27	07:09 19:04	27	07:39 (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	15	06:59 (B14) 07:14 (B14)	05:40 20:49	04:41 21:47	04:28 22:10	06:09 20:24	07:11 19:02	24	07:11 (B14) 08:04 (B14)			07:14 16:45	08:19 15:44
29	08:20 16:39	07:11 17:47	06:00 18:47	8	08:02 (B14) 08:10 (B14)	05:37 20:51	04:40 21:48	04:29 22:10	06:11 20:22	07:13 18:59	21	07:42 (B14) 08:03 (B14)			07:16 16:43	08:21 15:45
30	08:19 16:41	07:09 17:49	06:00 18:49			05:35 20:53	04:38 21:50	04:29 22:09	06:13 20:19	07:15 18:56	17	07:44 (B14) 08:01 (B14)			07:18 16:41	08:22 15:46
31	08:17 16:43	07:07 17:51	06:00 18:51			05:33 21:51	04:37 21:51	04:30 22:10	06:15 20:17	07:20 17:38					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				418						399						
Sun reduction				0.41						0.43						
Oper. time red.				0.98						0.98						
Wind dir. red.				0.63						0.63						
Total reduction				0.26						0.27						
Total, real				107						106			3			

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

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Silavinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (224)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (152)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	09:34 (B22) 10:17 (B22)	07:11 17:48	06:49 19:53	05:33 20:55
2	08:50 15:49	08:13 16:47	09:35 (B22) 10:17 (B22)	07:08 17:50	06:46 19:55	05:30 20:57
3	08:50 15:51	08:11 16:50	09:35 (B22) 10:17 (B22)	07:06 17:52	06:43 19:57	05:28 21:00
4	08:50 15:52	08:09 16:52	09:36 (B22) 10:17 (B22)	07:03 17:54	06:41 19:59	05:26 21:02
5	08:49 15:53	08:07 16:54	09:37 (B22) 10:17 (B22)	07:00 17:56	06:38 20:01	05:23 21:04
6	08:49 15:55	08:05 16:56	09:36 (B22) 10:16 (B22)	06:58 17:58	06:35 20:03	05:21 21:06
7	08:48 15:56	09:46 (B22) 09:51 (B22)	08:03 16:59	09:37 (B22) 10:16 (B22)	06:55 18:00	06:33 20:05
8	08:48 15:58	09:43 (B22) 09:41 (B22)	08:01 17:01	09:38 (B22) 10:15 (B22)	06:53 18:03	06:30 20:08
9	08:47 15:59	09:42 (B22) 09:56 (B22)	07:58 17:03	09:39 (B22) 10:14 (B22)	06:50 18:05	06:28 20:10
10	08:46 16:01	09:41 (B22) 09:58 (B22)	07:56 17:05	09:40 (B22) 10:13 (B22)	06:47 18:07	06:25 20:12
11	08:45 16:03	09:40 (B22) 10:00 (B22)	07:54 17:08	09:42 (B22) 10:12 (B22)	06:45 18:09	06:22 20:14
12	08:44 16:04	09:39 (B22) 10:02 (B22)	07:52 17:10	09:42 (B22) 10:10 (B22)	06:42 18:11	06:20 20:16
13	08:43 16:06	09:38 (B22) 10:03 (B22)	07:49 17:12	09:45 (B22) 10:09 (B22)	06:40 18:13	06:17 20:18
14	08:42 16:08	09:38 (B22) 10:04 (B22)	07:47 17:14	09:46 (B22) 10:06 (B22)	06:37 18:15	06:14 20:20
15	08:41 16:10	09:37 (B22) 10:05 (B22)	07:45 17:17	09:50 (B22) 10:03 (B22)	06:34 18:18	06:12 20:22
16	08:40 16:12	09:37 (B22) 10:07 (B22)	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25
17	08:39 16:14	09:37 (B22) 10:08 (B22)	07:40 17:21	06:29 18:22	06:07 20:26	05:01 21:27
18	08:37 16:16	09:36 (B22) 10:09 (B22)	07:38 17:23	06:26 18:24	06:04 20:28	05:01 21:29
19	08:36 16:18	09:35 (B22) 10:10 (B22)	07:36 17:26	06:24 18:26	06:02 20:30	05:01 21:31
20	08:35 16:20	09:35 (B22) 10:11 (B22)	07:33 17:28	06:21 18:28	05:59 20:33	05:01 21:33
21	08:33 16:22	09:35 (B22) 10:12 (B22)	07:31 17:30	06:18 18:30	05:57 20:35	05:01 21:35
22	08:32 16:24	09:34 (B22) 10:12 (B22)	07:28 17:32	06:16 18:32	05:54 20:37	05:01 21:37
23	08:30 16:26	09:34 (B22) 10:13 (B22)	07:26 17:34	06:13 18:34	05:52 20:39	05:01 21:38
24	08:29 16:28	09:35 (B22) 10:14 (B22)	07:23 17:37	06:10 18:36	05:49 20:41	05:01 21:40
25	08:27 16:30	09:35 (B22) 10:15 (B22)	07:21 17:39	06:07 18:38	05:47 20:43	05:01 21:42
26	08:26 16:32	09:34 (B22) 10:15 (B22)	07:18 17:41	06:05 18:41	05:44 20:45	05:01 21:43
27	08:24 16:34	09:34 (B22) 10:16 (B22)	07:16 17:43	06:02 18:43	05:42 20:47	05:01 21:45
28	08:22 16:36	09:34 (B22) 10:16 (B22)	07:13 17:45	05:59 18:45	05:40 20:49	05:01 21:47
29	08:20 16:39	09:35 (B22) 10:17 (B22)	07:11 17:47	06:57 19:47	05:37 20:51	05:01 21:48
30	08:18 16:41	09:35 (B22) 10:17 (B22)	07:11 17:47	06:54 19:49	05:35 20:53	05:01 21:50
31	08:17 16:43	09:35 (B22) 10:17 (B22)	07:11 17:47	06:51 19:51	05:37 20:53	05:01 21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case	778	507			261	
Sun reduction	0.13	0.20			0.57	
Oper. time red.	0.98	0.98			0.98	
Wind dir. red.	0.61	0.61			0.67	
Total reduction	0.08	0.12			0.36	
Total, real	60	59			94	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (152)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

July		August		September		October		November		December	
1	04:30	05:16	05:54 (B1)	06:17	07:17	07:23	09:09 (B22)	08:24	09:22 (B22)		
	22:09	21:28	20	06:14 (B1)	20:14	16:36	34	09:43 (B22)	15:45	20	09:42 (B22)
2	04:31	05:18	05:54 (B1)	06:19	07:19	07:25	09:08 (B22)	08:26	09:24 (B22)		
	22:09	21:26	20	06:14 (B1)	20:11	16:34	36	09:44 (B22)	15:44	18	09:42 (B22)
3	04:32	05:19	05:54 (B1)	06:21	07:21	07:27	09:08 (B22)	08:28	09:25 (B22)		
	22:08	21:24	21	06:15 (B1)	20:09	16:32	37	09:45 (B22)	15:43	15	09:40 (B22)
4	04:33	05:21	05:55 (B1)	06:23	07:23	07:29	09:07 (B22)	08:29	09:27 (B22)		
	22:07	21:22	20	06:15 (B1)	20:06	16:29	38	09:45 (B22)	15:42	11	09:38 (B22)
5	04:34	05:23	05:56 (B1)	06:25	07:25	07:31	09:06 (B22)	08:31	09:31 (B22)		
	22:07	21:20	17	06:13 (B1)	20:03	16:27	40	09:46 (B22)	15:42	5	09:36 (B22)
6	04:35	05:25	05:58 (B1)	06:27	07:27	07:33	09:06 (B22)	08:32			
	22:06	21:17	15	06:13 (B1)	20:01	16:25	41	09:47 (B22)	15:41		
7	04:36	05:27	06:00 (B1)	06:29	07:30	07:36	09:06 (B22)	08:34			
	22:05	21:15	13	06:13 (B1)	19:58	16:23	41	09:47 (B22)	15:40		
8	04:37	05:29	06:02 (B1)	06:31	07:32	07:38	09:06 (B22)	08:35			
	22:04	21:13	10	06:12 (B1)	19:55	16:21	42	09:48 (B22)	15:40		
9	04:38	05:31	06:04 (B1)	06:33	07:34	07:40	09:06 (B22)	08:37			
	22:03	21:11	7	06:11 (B1)	19:53	16:19	41	09:47 (B22)	15:39		
10	04:39	05:33	06:06 (B1)	06:35	07:36	07:42	09:06 (B22)	08:38			
	22:02	21:08	3	06:09 (B1)	19:50	16:17	42	09:48 (B22)	15:39		
11	04:41	05:35		06:37	07:38	07:44	09:06 (B22)	08:39			
	22:01	21:06		19:47	18:27	16:15	42	09:48 (B22)	15:38		
12	04:42	05:37		06:39	07:40	07:46	09:06 (B22)	08:40			
	22:00	21:04		19:45	18:25	16:13	42	09:48 (B22)	15:38		
13	04:43	05:39		06:41	07:42	07:49	09:06 (B22)	08:42			
	21:59	21:02		19:42	18:22	16:11	42	09:48 (B22)	15:38		
14	04:45	05:41		06:43	07:44	07:51	09:06 (B22)	08:43			
	21:58	20:59		19:39	18:19	16:09	42	09:48 (B22)	15:38		
15	04:46	05:43		06:45	07:46	07:53	09:06 (B22)	08:44			
	21:57	20:57		19:37	18:17	16:08	42	09:48 (B22)	15:38		
16	04:48	05:45		06:47	07:48	07:55	09:07 (B22)	08:45			
	21:55	20:54		19:34	18:14	16:06	41	09:48 (B22)	15:38		
17	04:49	05:47		06:49	07:50	07:57	09:08 (B22)	08:46			
	21:54	20:52		19:31	18:12	16:04	40	09:48 (B22)	15:38		
18	04:51	05:49		06:51	07:52	07:59	09:09 (B22)	08:46			
	21:52	20:50		19:29	18:09	16:02	39	09:48 (B22)	15:38		
19	04:52	05:51		06:53	07:55	08:01	09:09 (B22)	08:47			
	21:51	20:47		19:26	18:07	16:01	39	09:48 (B22)	15:38		
20	04:54	05:53		06:55	07:57	08:03	09:09 (B22)	08:48			
	21:49	20:45		19:23	18:04	15:59	38	09:47 (B22)	15:39		
21	04:56	05:55		06:57	07:59	08:05	09:10 (B22)	08:48			
	21:48	20:42		19:20	18:02	15:58	37	09:47 (B22)	15:39		
22	04:57	05:57		06:59	08:01	08:07	09:11 (B22)	08:49			
	21:46	20:40		19:18	17:59	15:56	36	09:47 (B22)	15:39		
23	04:59	05:59		07:01	08:03	08:09	09:12 (B22)	08:50			
	21:45	20:37		19:15	17:57	15:55	35	09:47 (B22)	15:40		
24	05:01	06:01 (B1)	06:01	07:03	08:05	08:11	09:13 (B22)	08:50			
	21:43	7	06:08 (B1)	20:35	19:12	17:55	15:53	33	09:46 (B22)	15:41	
25	05:03	05:59 (B1)	06:03	07:05	07:07	08:13	09:14 (B22)	08:50			
	21:41	11	06:10 (B1)	20:32	19:10	17:52	31	09:45 (B22)	15:41		
26	05:04	05:58 (B1)	06:05	07:07	07:10	08:15	09:15 (B22)	08:51			
	21:39	13	06:11 (B1)	20:30	19:07	16:50	15:51	30	09:45 (B22)	15:42	
27	05:06	05:57 (B1)	06:07	07:09	07:12	08:17	09:17 (B22)	08:51			
	21:38	15	06:12 (B1)	20:27	19:04	16:47	14	09:33 (B22)	15:49	28	09:45 (B22)
28	05:08	05:56 (B1)	06:09	07:11	07:14	08:19	09:18 (B22)	08:51			
	21:36	16	06:12 (B1)	20:24	19:02	16:45	21	09:36 (B22)	15:48	27	09:45 (B22)
29	05:10	05:55 (B1)	06:11	07:13	07:16	08:21	09:19 (B22)	08:51			
	21:34	18	06:13 (B1)	20:22	18:59	16:43	25	09:39 (B22)	15:47	25	09:44 (B22)
30	05:12	05:55 (B1)	06:13	07:15	07:18	08:22	09:20 (B22)	08:51			
	21:32	19	06:14 (B1)	20:19	18:56	16:40	28	09:40 (B22)	15:46	23	09:43 (B22)
31	05:14	05:55 (B1)	06:15	07:20	07:20	08:25	09:20 (B22)	08:51			
	21:30	20	06:15 (B1)	20:17	16:38	31	09:41 (B22)	15:47			
Potential sun hours	529	469		385	324	247		216			
Total, worst case	119	146			119	1104		69			
Sun reduction	0.49	0.50			0.26	0.08		0.07			
Oper. time red.	0.98	0.98			0.98	0.98		0.98			
Wind dir. red.	0.67	0.67			0.61	0.61		0.61			
Total reduction	0.31	0.32			0.15	0.05		0.04			
Total, real	37	46			18	52		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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345002) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (144)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	09:37 (B22) 10:21 (B22)	07:11 17:48	06:49 19:53	05:33 20:55
2	08:50 15:49	08:13 16:47	09:37 (B22) 10:21 (B22)	07:08 17:50	06:46 19:55	05:30 20:57
3	08:50 15:51	08:11 16:50	09:37 (B22) 10:21 (B22)	07:06 17:52	06:43 19:57	05:28 21:00
4	08:50 15:52	08:09 16:52	09:38 (B22) 10:21 (B22)	07:03 17:54	06:41 19:59	05:26 21:02
5	08:49 15:53	08:07 16:54	09:39 (B22) 10:21 (B22)	07:00 17:56	06:38 20:01	05:23 21:04
6	08:49 15:55	08:05 16:56	09:38 (B22) 10:20 (B22)	06:58 17:58	06:35 20:03	05:21 21:06
7	08:48 15:56	09:47 (B22) 09:56 (B22)	08:03 16:59	09:39 (B22) 10:20 (B22)	06:55 18:00	06:33 20:05
8	08:48 15:58	09:45 (B22) 09:43 (B22)	08:01 17:01	09:40 (B22) 10:20 (B22)	06:53 18:03	06:30 20:08
9	08:47 15:59	09:44 (B22) 10:00 (B22)	07:58 17:03	09:40 (B22) 10:18 (B22)	06:50 18:05	06:28 20:10
10	08:46 16:01	09:42 (B22) 10:02 (B22)	07:56 17:05	09:42 (B22) 10:18 (B22)	06:47 18:07	06:25 20:12
11	08:45 16:03	09:42 (B22) 10:04 (B22)	07:54 17:08	09:43 (B22) 10:17 (B22)	06:45 18:09	06:22 20:14
12	08:44 16:04	09:42 (B22) 10:06 (B22)	07:52 17:10	09:44 (B22) 10:15 (B22)	06:42 18:11	06:20 20:16
13	08:43 16:06	09:40 (B22) 10:07 (B22)	07:49 17:12	09:46 (B22) 10:14 (B22)	06:40 18:13	06:17 20:18
14	08:42 16:08	09:40 (B22) 10:08 (B22)	07:47 17:14	09:47 (B22) 10:12 (B22)	06:37 18:15	06:14 20:20
15	08:41 16:10	09:39 (B22) 10:09 (B22)	07:45 17:17	09:50 (B22) 10:10 (B22)	06:34 18:18	06:12 20:22
16	08:40 16:12	09:39 (B22) 10:10 (B22)	07:43 17:19	09:53 (B22) 10:05 (B22)	06:32 18:20	06:09 20:24
17	08:39 16:14	09:39 (B22) 10:12 (B22)	07:40 17:21	06:29 18:22	06:07 20:26	05:59 21:27
18	08:37 16:16	09:38 (B22) 10:13 (B22)	07:38 17:23	06:26 18:24	06:04 20:28	05:57 21:29
19	08:36 16:18	09:38 (B22) 10:13 (B22)	07:36 17:26	06:24 18:26	06:02 20:30	05:55 21:31
20	08:35 16:20	09:38 (B22) 10:15 (B22)	07:33 17:28	06:21 18:28	05:59 20:33	05:53 21:33
21	08:33 16:22	09:37 (B22) 10:16 (B22)	07:31 17:30	06:18 18:30	05:57 20:35	05:51 21:35
22	08:32 16:24	09:37 (B22) 10:16 (B22)	07:28 17:32	06:16 18:32	05:54 20:37	05:49 21:37
23	08:30 16:26	09:36 (B22) 10:17 (B22)	07:26 17:34	06:13 18:34	05:52 20:39	05:48 21:38
24	08:29 16:28	09:37 (B22) 10:18 (B22)	07:23 17:37	06:10 18:36	05:49 20:41	05:47 21:40
25	08:27 16:30	09:37 (B22) 10:19 (B22)	07:21 17:39	06:07 18:38	05:47 20:43	05:45 21:42
26	08:26 16:32	09:37 (B22) 10:19 (B22)	07:18 17:41	06:05 18:41	05:44 20:45	05:44 21:43
27	08:24 16:34	09:37 (B22) 10:20 (B22)	07:16 17:43	06:02 18:43	05:42 20:47	05:42 21:45
28	08:22 16:36	09:37 (B22) 10:20 (B22)	07:13 17:45	05:59 18:45	05:40 20:49	05:40 21:47
29	08:20 16:39	09:37 (B22) 10:21 (B22)		06:57 19:47	05:37 20:51	05:37 21:48
30	08:18 16:41	09:37 (B22) 10:21 (B22)		06:54 19:49	05:35 20:53	05:35 21:50
31	08:17 16:43	09:37 (B22) 10:21 (B22)		06:51 19:51		05:33 21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case	821	564			285	
Sun reduction	0.13	0.20			0.57	
Oper. time red.	0.98	0.98			0.98	
Wind dir. red.	0.61	0.61			0.67	
Total reduction	0.08	0.12			0.36	
Total, real	63	65			103	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345002) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (144)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	05:50 (B1) 21:28	06:17 20:14	07:17 18:54	07:23 16:36
2	04:31 22:09	05:18 21:26	05:51 (B1) 20:11	06:19 18:51	07:19 16:34	09:11 (B22) 15:45
3	04:32 22:08	05:19 21:24	05:53 (B1) 20:09	06:21 18:48	07:21 16:32	09:10 (B22) 15:43
4	04:33 22:07	05:21 21:22	05:55 (B1) 20:06	06:23 18:46	07:23 16:29	09:09 (B22) 15:42
5	04:34 22:07	05:23 21:20	05:56 (B1) 20:03	06:25 18:43	07:25 16:27	09:08 (B22) 15:42
6	04:35 22:06	05:25 21:17	05:58 (B1) 20:01	06:27 18:40	07:27 16:25	09:08 (B22) 15:41
7	04:36 22:05	05:27 21:15	06:00 (B1) 19:58	06:29 18:38	07:30 16:23	09:08 (B22) 15:40
8	04:37 22:04	05:29 21:13	06:02 (B1) 19:55	06:31 18:35	07:32 16:21	09:08 (B22) 15:40
9	04:38 22:03	05:31 21:11	06:06 (B1) 19:53	06:33 18:32	07:34 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	09:08 (B22) 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:08 (B22) 15:38
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:08 (B22) 15:38
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:09 (B22) 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:09 (B22) 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:09 (B22) 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:10 (B22) 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:10 (B22) 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:11 (B22) 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:11 (B22) 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:12 (B22) 15:39
21	04:56 21:48	05:55 (B1) 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:12 (B22) 15:39
22	04:57 21:46	05:57 (B1) 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:14 (B22) 15:39
23	04:59 21:45	05:59 (B1) 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:15 (B22) 15:40
24	05:01 21:43	05:53 (B1) 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:15 (B22) 15:41
25	05:03 21:41	05:53 (B1) 20:32	07:05 19:10	08:07 16:52	08:13 15:52	09:16 (B22) 15:41
26	05:04 21:39	05:52 (B1) 20:30	07:07 19:07	08:09 16:50	08:15 15:51	09:17 (B22) 15:42
27	05:06 21:38	05:52 (B1) 20:27	07:09 19:04	08:12 16:47	08:17 15:49	09:19 (B22) 15:43
28	05:08 21:36	05:51 (B1) 20:24	07:11 19:02	08:14 16:45	08:19 15:48	09:20 (B22) 15:44
29	05:10 21:34	05:51 (B1) 20:22	07:13 18:59	08:16 16:43	08:21 15:47	09:21 (B22) 15:45
30	05:12 21:32	05:51 (B1) 20:19	07:15 18:56	08:18 16:40	08:22 15:46	09:23 (B22) 15:46
31	05:14 21:30	05:51 (B1) 20:17		08:20 16:38	09:11 (B22) 15:46	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	176	107		159	1157	82
Sun reduction	0.49	0.50		0.26	0.08	0.07
Oper. time red.	0.98	0.98		0.98	0.98	0.98
Wind dir. red.	0.67	0.67		0.61	0.61	0.61
Total reduction	0.31	0.32		0.15	0.05	0.04
Total, real	55	34		24	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345005) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (143)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January		February		March	April	May	June
1	08:51	09:53 (B22)	08:15	09:43 (B22)	07:11	06:49	05:33	04:36
	15:48	4	09:57 (B22)	16:45	44	10:27 (B22)	17:48	21:53
2	08:50	09:51 (B22)	08:13	09:44 (B22)	07:08	06:46	05:30	04:35
	15:49	10	10:01 (B22)	16:47	43	10:27 (B22)	17:50	21:54
3	08:50	09:50 (B22)	08:11	09:44 (B22)	07:06	06:43	05:28	04:34
	15:51	12	10:02 (B22)	16:50	43	10:27 (B22)	17:52	21:55
4	08:50	09:49 (B22)	08:09	09:45 (B22)	07:03	06:41	05:26	04:33
	15:52	15	10:04 (B22)	16:52	42	10:27 (B22)	17:54	21:57
5	08:49	09:49 (B22)	08:07	09:46 (B22)	07:00	06:38	05:23	04:32
	15:53	17	10:06 (B22)	16:54	41	10:27 (B22)	17:56	21:58
6	08:49	09:48 (B22)	08:05	09:46 (B22)	06:58	06:35	05:21	04:31
	15:55	19	10:07 (B22)	16:56	39	10:25 (B22)	17:58	21:59
7	08:48	09:47 (B22)	08:03	09:47 (B22)	06:55	06:33	05:19	04:30
	15:56	22	10:09 (B22)	16:59	38	10:25 (B22)	18:00	22:00
8	08:48	09:46 (B22)	08:01	09:48 (B22)	06:53	06:30	05:17	04:29
	15:58	24	10:10 (B22)	17:01	37	10:25 (B22)	18:03	22:01
9	08:47	09:46 (B22)	07:58	09:48 (B22)	06:50	06:28	05:15	04:28
	15:59	25	10:11 (B22)	17:03	35	10:23 (B22)	18:05	22:02
10	08:46	09:46 (B22)	07:56	09:50 (B22)	06:47	06:25	05:13	04:28
	16:01	27	10:13 (B22)	17:05	32	10:22 (B22)	18:07	22:03
11	08:45	09:45 (B22)	07:54	09:52 (B22)	06:45	06:22	05:11	04:27
	16:03	29	10:14 (B22)	17:08	29	10:21 (B22)	18:09	22:04
12	08:44	09:45 (B22)	07:52	09:53 (B22)	06:42	06:20	05:08	04:27
	16:04	30	10:15 (B22)	17:10	26	10:19 (B22)	18:11	22:05
13	08:43	09:44 (B22)	07:49	09:55 (B22)	06:40	06:17	05:06	04:26
	16:06	32	10:16 (B22)	17:12	22	10:17 (B22)	18:13	22:06
14	08:42	09:44 (B22)	07:47	09:58 (B22)	06:37	06:14	05:04	04:26
	16:08	33	10:17 (B22)	17:14	15	10:13 (B22)	18:15	22:07
15	08:41	09:43 (B22)	07:45	06:34	06:12	05:03	05:41 (B1)	04:26
	16:10	35	10:18 (B22)	17:17	18:18	20:22	21:24	22:07
16	08:40	09:43 (B22)	07:43	06:32	06:09	05:01	05:41 (B1)	04:25
	16:12	36	10:19 (B22)	17:19	18:20	20:24	21:25	22:08
17	08:39	09:44 (B22)	07:40	06:29	06:07	04:59	05:42 (B1)	04:25
	16:14	36	10:20 (B22)	17:21	18:22	20:26	21:27	22:08
18	08:37	09:43 (B22)	07:38	06:26	06:04	04:57	05:43 (B1)	04:25
	16:16	38	10:21 (B22)	17:23	18:24	20:28	21:29	22:09
19	08:36	09:42 (B22)	07:35	06:24	06:02	04:55	05:43 (B1)	04:25
	16:18	39	10:21 (B22)	17:26	18:26	20:30	21:31	22:09
20	08:35	09:43 (B22)	07:33	06:21	05:59	04:53	05:44 (B1)	04:25
	16:20	40	10:23 (B22)	17:28	18:28	20:33	21:33	22:10
21	08:33	09:43 (B22)	07:31	06:18	05:57	04:52	05:45 (B1)	04:25
	16:22	40	10:23 (B22)	17:30	18:30	20:35	21:35	22:10
22	08:32	09:42 (B22)	07:28	06:16	05:54	04:50	05:47 (B1)	04:25
	16:24	42	10:24 (B22)	17:32	18:32	20:37	21:37	22:10
23	08:30	09:42 (B22)	07:26	06:13	05:52	04:48	05:50 (B1)	04:26
	16:26	42	10:24 (B22)	17:34	18:34	20:39	21:38	22:10
24	08:29	09:43 (B22)	07:23	06:10	05:49	04:47	05:54 (B1)	04:26
	16:28	42	10:25 (B22)	17:37	18:36	20:41	21:40	22:10
25	08:27	09:43 (B22)	07:21	06:07	05:47	04:45	05:56 (B1)	04:26
	16:30	43	10:26 (B22)	17:39	18:38	20:43	21:42	22:10
26	08:26	09:43 (B22)	07:18	06:05	05:44	04:44	05:50 (B1)	04:27
	16:32	43	10:26 (B22)	17:41	18:41	20:45	21:43	22:10
27	08:24	09:43 (B22)	07:16	06:02	05:42	04:42	05:57 (B1)	04:27
	16:34	44	10:27 (B22)	17:43	18:43	20:47	21:45	22:10
28	08:22	09:43 (B22)	07:13	05:59	05:40	04:41	05:58 (B1)	04:28
	16:36	44	10:27 (B22)	17:45	18:45	20:49	21:47	22:10
29	08:20	09:43 (B22)		06:57	05:37	04:40	05:59 (B1)	04:29
	16:39	44	10:27 (B22)		19:47	20:51	21:48	22:10
30	08:18	09:43 (B22)		06:54	05:35	04:38	06:00 (B1)	04:29
	16:41	44	10:27 (B22)		19:49	20:53	21:50	22:09
31	08:17	09:44 (B22)		06:51		04:37		
	16:43	44	10:28 (B22)		19:51	21:51		
Potential sun hours	235		266		366	426	508	529
Total, worst case	995		486				293	
Sun reduction	0.13		0.20				0.57	
Oper. time red.	0.98		0.98				0.98	
Wind dir. red.	0.61		0.61				0.67	
Total reduction	0.08		0.12				0.36	
Total, real	77		57				106	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345005) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (143)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December		
1	04:30			05:16		05:51 (B1)	06:17		07:17			07:23		09:19 (B22)	08:24		09:27 (B22)	
	22:09			21:28	21	06:12 (B1)	20:14		18:54			16:36	33	09:52 (B22)	15:45	29	09:56 (B22)	
2	04:31			05:18		05:51 (B1)	06:19		07:19			07:25		09:18 (B22)	08:26		09:29 (B22)	
	22:09			21:26	21	06:12 (B1)	20:11		18:51			16:34	35	09:53 (B22)	15:44	27	09:56 (B22)	
3	04:32			05:19		05:53 (B1)	06:21		07:21			07:27		09:18 (B22)	08:28		09:29 (B22)	
	22:08			21:24	19	06:12 (B1)	20:09		18:48			16:32	36	09:54 (B22)	15:43	25	09:54 (B22)	
4	04:33			05:21		05:55 (B1)	06:23		07:23			07:29		09:16 (B22)	08:29		09:30 (B22)	
	22:07			21:22	16	06:11 (B1)	20:06		18:46			16:29	39	09:55 (B22)	15:42	24	09:54 (B22)	
5	04:34			05:23		05:56 (B1)	06:25		07:25			07:31		09:15 (B22)	08:31		09:32 (B22)	
	22:07			21:20	14	06:10 (B1)	20:03		18:43			16:27	40	09:55 (B22)	15:42	22	09:54 (B22)	
6	04:35			05:25		05:58 (B1)	06:27		07:27			07:33		09:16 (B22)	08:32		09:34 (B22)	
	22:06			21:17	11	06:09 (B1)	20:01		18:40			16:25	40	09:56 (B22)	15:41	20	09:54 (B22)	
7	04:36			05:27		06:00 (B1)	06:29		07:30			07:36		09:15 (B22)	08:34		09:35 (B22)	
	22:05			21:15	8	06:08 (B1)	19:58		18:38			16:23	42	09:57 (B22)	15:40	17	09:52 (B22)	
8	04:37			05:29		06:02 (B1)	06:31		07:32			07:38		09:15 (B22)	08:35		09:37 (B22)	
	22:04			21:13	5	06:07 (B1)	19:55		18:35			16:21	43	09:58 (B22)	15:40	15	09:52 (B22)	
9	04:38			05:31		06:04 (B1)	06:33		07:34			07:40		09:14 (B22)	08:37		09:38 (B22)	
	22:03			21:11	1	06:05 (B1)	19:53		18:32			16:19	44	09:58 (B22)	15:39	13	09:51 (B22)	
10	04:39			05:33			06:35		07:36			07:42		09:15 (B22)	08:38		09:40 (B22)	
	22:02			21:08			19:50		18:30			16:17	44	09:59 (B22)	15:39	10	09:50 (B22)	
11	04:41			05:35			06:37		07:38			07:44		09:15 (B22)	08:39		09:42 (B22)	
	22:01			21:06			19:47		18:27			16:15	43	09:58 (B22)	15:38	6	09:48 (B22)	
12	04:42			05:37			06:39		07:40			07:46		09:14 (B22)	08:40			
	22:00			21:04			19:45		18:25			16:13	44	09:58 (B22)	15:38			
13	04:43			05:39			06:41		07:42			07:49		09:15 (B22)	08:42			
	21:59			21:02			19:42		18:22			16:11	44	09:59 (B22)	15:38			
14	04:45			05:41			06:43		07:44			07:51		09:15 (B22)	08:43			
	21:58			20:59			19:39		18:19			16:09	44	09:59 (B22)	15:38			
15	04:46			05:43			06:45		07:46			07:53		09:15 (B22)	08:44			
	21:57			20:57			19:37		18:17			16:08	43	09:58 (B22)	15:38			
16	04:48			05:45			06:47		07:48			07:55		09:16 (B22)	08:45			
	21:55			20:54			19:34		18:14			16:06	43	09:59 (B22)	15:38			
17	04:49			05:47			06:49		07:50			07:57		09:16 (B22)	08:46			
	21:54			20:52			19:31		18:12			16:04	43	09:59 (B22)	15:38			
18	04:51			05:49			06:51		07:52			07:59		09:17 (B22)	08:46			
	21:52			20:50			19:29		18:09			16:02	42	09:59 (B22)	15:38			
19	04:52			05:51			06:53		07:55			08:01		09:17 (B22)	08:47			
	21:51			20:47			19:26		18:07			16:01	42	09:59 (B22)	15:38			
20	04:54			05:53			06:55		07:57			08:03		09:17 (B22)	08:48			
	21:49			20:45			19:23		18:04			15:59	42	09:59 (B22)	15:39			
21	04:56		05:58 (B1)	05:55			06:57		07:59			08:05		09:18 (B22)	08:48			
	21:48	6	06:04 (B1)	20:42			19:20		18:02			15:58	40	09:58 (B22)	15:39			
22	04:57		05:56 (B1)	05:57			06:59		08:01			08:07		09:19 (B22)	08:49			
	21:46	11	06:07 (B1)	20:40			19:18		17:59			15:56	40	09:59 (B22)	15:39			
23	04:59		05:55 (B1)	05:59			07:01		08:03			08:09		09:19 (B22)	08:50			
	21:45	13	06:08 (B1)	20:37			19:15		17:57			15:55	39	09:58 (B22)	15:40			
24	05:01		05:54 (B1)	06:01			07:03		08:05			08:11		09:20 (B22)	08:50			
	21:43	15	06:09 (B1)	20:35			19:12		17:55			15:53	38	09:58 (B22)	15:41			
25	05:03		05:54 (B1)	06:03			07:05		07:07			08:13		09:21 (B22)	08:50			
	21:41	16	06:10 (B1)	20:32			19:10		16:52			15:52	36	09:57 (B22)	15:41			
26	05:04		05:53 (B1)	06:05			07:07		07:10			08:15		09:21 (B22)	08:51			
	21:39	17	06:10 (B1)	20:30			19:07		16:50			15:51	36	09:57 (B22)	15:42			
27	05:06		05:52 (B1)	06:07			07:09		07:12		09:32 (B22)	08:17		09:23 (B22)	08:51			
	21:38	19	06:11 (B1)	20:27			19:04		16:47	7	09:39 (B22)	15:49	35	09:58 (B22)	15:43			
28	05:08		05:51 (B1)	06:09			07:11		07:14		09:27 (B22)	08:19		09:24 (B22)	08:51			
	21:36	20	06:11 (B1)	20:24			19:02		16:45	16	09:43 (B22)	15:48	33	09:57 (B22)	15:44			
29	05:10		05:51 (B1)	06:11			07:13		07:16		09:24 (B22)	08:21		09:25 (B22)	08:51			
	21:34	20	06:11 (B1)	20:22			18:59		16:43	23	09:47 (B22)	15:47	32	09:57 (B22)	15:45			
30	05:12		05:51 (B1)	06:13			07:15		07:18		09:22 (B22)	08:22		09:26 (B22)	08:51			
	21:32	21	06:12 (B1)	20:19			18:56		16:40	27	09:49 (B22)	15:46	30	09:56 (B22)	15:46			
31	05:14		05:52 (B1)	06:15					07:20		09:20 (B22)				08:51			
	21:30	20	06:12 (B1)	20:17					16:38	30	09:50 (B22)				15:47			
Potential sun hours	529			469			385		324			247			216			
Total, worst case	178			116					103			1185			208			
Sun reduction	0.49			0.50					0.26			0.08			0.07			
Oper. time red.	0.98			0.98					0.98			0.98			0.98			
Wind dir. red.	0.67			0.67					0.61			0.61			0.61			
Total reduction	0.31			0.32					0.15			0.05			0.04			
Total, real	56			37					15			57			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 05:23/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:33	08:25 15:44
3	08:50 15:50	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:34 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:15	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:25	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:43
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Smelceju majas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (197)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:16 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
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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	05:01 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
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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
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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Spridiš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (82)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	08:57 (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	08:19 (B22) 15:45
2	08:50 15:49	08:13 16:47	08:56 (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	07:19 16:34	08:19 (B22) 15:44
3	08:50 15:51	08:11 16:50	08:55 (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	07:21 16:32	08:20 (B22) 15:43
4	08:50 15:52	08:09 16:52	08:54 (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	08:21 (B22) 15:42
5	08:49 15:53	08:07 16:54	08:53 (B22) 17:56	07:00 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	08:21 (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	04:35 21:17	05:25 20:01	06:27 18:40	07:27 16:25	08:22 (B22) 15:41
7	08:48 15:56	08:03 16:59	08:51 (B22) 18:01	06:55 20:05	06:33 21:08	05:19 22:00	04:30 22:05	04:36 21:15	05:27 19:58	06:29 18:38	07:30 16:23	08:23 (B22) 15:40
8	08:48 15:58	08:01 17:01	08:51 (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	08:25 (B22) 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	08:49 (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	08:27 (B22) 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	08:49 (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	08:29 (B22) 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	08:49 (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	08:32 (B22) 16:15	08:39 15:38
12	08:44 16:05	07:52 17:10	08:48 (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	08:37 (B22) 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	08:49 (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	08:41 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	08:48 (B22) 18:15	06:37 20:20	06:15 21:22	05:04 22:07	04:26 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:43 16:09	08:44 15:38
15	08:41 16:10	07:45 17:17	08:49 (B22) 18:18	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	08:45 16:08	08:46 15:38
16	08:40 16:12	07:43 17:19	08:48 (B22) 18:20	06:32 20:24	06:09 21:25	05:01 22:08	04:25 21:55	05:45 20:54	06:47 19:34	07:48 18:14	08:47 16:06	08:48 15:38
17	08:39 16:14	07:40 17:21	08:49 (B22) 18:22	06:29 20:26	06:07 21:27	04:59 22:08	04:25 21:54	05:49 20:52	06:49 19:31	07:50 18:12	08:49 16:04	08:46 15:38
18	08:37 16:16	07:38 17:23	08:49 (B22) 18:24	06:26 20:28	06:04 21:29	04:57 22:09	04:25 21:52	05:49 20:50	06:51 19:29	07:52 18:09	08:51 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	08:49 (B22) 18:26	06:24 20:30	06:02 21:31	04:55 22:09	04:25 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:53 (B22) 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	08:49 (B22) 18:28	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	08:55 (B22) 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	08:51 (B22) 18:30	06:18 20:35	05:57 21:35	04:52 22:10	04:25 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:56 (B22) 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	08:51 (B22) 18:32	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	08:58 (B22) 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	08:52 (B22) 18:34	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	09:00 (B22) 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	08:53 (B22) 18:36	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	09:19 (B22) 15:53	08:51 15:41
25	08:27 16:30	07:21 17:39	08:55 (B22) 18:38	06:07 20:43	05:47 21:42	04:45 22:10	04:26 21:41	06:03 20:32	07:05 19:10	08:07 17:52	09:21 (B22) 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	08:57 (B22) 18:41	06:05 20:45	05:44 21:43	04:44 22:10	04:27 21:39	06:05 20:30	07:07 19:07	08:10 17:50	09:23 (B22) 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	09:00 (B22) 18:43	06:02 20:47	05:42 21:45	04:42 22:10	04:27 21:38	06:07 20:27	07:09 19:04	08:12 17:47	09:24 (B22) 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	09:14 (B22) 18:45	05:59 20:49	05:40 21:47	04:41 22:10	04:28 21:36	06:09 20:24	07:11 19:02	08:14 17:45	09:25 (B22) 15:48	08:51 15:44
29	08:20 16:39	07:06 17:47	09:17 (B22) 18:51	05:57 20:51	05:37 21:48	04:40 22:10	04:29 21:34	06:11 20:22	07:13 18:59	08:16 17:43	09:26 (B22) 15:47	08:51 15:45
30	08:18 16:41	06:54 17:49	09:05 (B22) 18:54	05:54 20:53	05:35 21:50	04:38 22:09	04:29 21:32	06:13 20:19	07:15 18:56	08:18 17:41	09:27 (B22) 15:46	08:51 15:46
31	08:17 16:43	06:51 17:51	09:01 (B22) 18:58	05:51 20:58	05:31 21:51	04:37 22:10	04:27 21:30	06:15 20:17	07:20 16:38	08:19 (B22) 17:40	09:28 (B22) 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	18	882								592	319	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.98	0.98								0.98	0.98	
Wind dir. red.	0.60	0.60								0.60	0.60	
Total reduction	0.08	0.12								0.15	0.05	
Total, real	1	104								90	15	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Spares - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (203)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:43
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:46 16:00	07:58 17:03	06:50 18:05	06:28 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:15	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
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15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	08:09 17:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	08:11 17:47	08:17 15:50	08:50 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	08:14 17:45	08:18 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:33	06:11 20:22	07:13 18:59	08:16 17:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Stacija Trepe 2 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (3)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:46	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:28 15:44
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:24 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:26 20:04	07:26 18:43	07:31 16:28	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:41	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:32 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:23 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:39
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:12	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:37 16:16	07:38 17:24	06:26 18:24	06:04 20:28	04:57 21:29	04:26 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:26 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:26 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:00 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:50 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:46 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:06 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:08 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:10 20:24	07:11 19:02	07:14 16:45	08:19 15:49	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:12 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:16 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Starumeni - Shadow Receptor: 1.0 × 1.0
Assumptions for shadow calculations

Azimuth: 0.0° Slope: 90.0° (121)

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	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 22:07	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 20:03	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	07:28 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 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	08:25 (B22) 08:31 (B22)	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	07:36 19:50	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	08:23 (B22) 08:33 (B22)	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	07:37 19:47	07:38 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	08:20 (B22) 08:34 (B22)	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	08:18 (B22) 08:36 (B22)	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	05:39 21:59	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	08:15 (B22) 08:36 (B22)	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:07	05:41 21:58	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	08:15 (B22) 08:37 (B22)	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	05:43 21:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	08:14 (B22) 08:37 (B22)	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	05:45 21:55	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	08:14 (B22) 08:38 (B22)	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	05:49 21:54	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	08:14 (B22) 08:37 (B22)	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	05:51 21:53	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	08:14 (B22) 08:37 (B22)	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	05:51 21:51	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	08:14 (B22) 08:37 (B22)	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	05:53 21:50	06:55 19:23	07:57 18:04	08:03 16:04	08:48 15:39
21	08:33 16:22	07:31 17:30	08:15 (B22) 08:36 (B22)	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	05:55 21:48	06:57 19:21	07:59 18:02	08:05 16:05	08:49 15:39
22	08:32 16:24	07:28 17:32	08:15 (B22) 08:35 (B22)	06:16 18:32	05:54 20:37	04:50 21:37	04:25 22:10	05:57 21:46	06:59 19:18	08:01 18:00	08:07 16:03	08:49 15:39
23	08:30 16:26	07:26 17:34	08:17 (B22) 08:34 (B22)	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	05:59 21:45	07:01 19:15	08:03 18:07	08:09 16:05	08:50 15:40
24	08:29 16:28	07:23 17:37	08:18 (B22) 08:32 (B22)	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	06:01 21:43	07:03 19:12	08:05 17:55	08:11 16:04	08:50 15:41
25	08:27 16:30	07:21 17:39	08:21 (B22) 08:30 (B22)	06:08 18:38	05:47 20:43	04:45 21:42	04:26 22:10	06:03 21:41	07:05 19:10	08:07 17:52	08:13 16:02	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	04:44 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:15 17:50	08:15 16:01	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	04:42 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:17 17:48	08:17 16:01	08:51 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:47	04:41 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:19 17:45	08:19 16:04	08:51 15:44
29	08:20 16:39	07:10 17:45	06:57 19:47	05:37 20:51	04:40 21:48	04:40 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:21 17:43	08:21 16:03	08:51 15:45
30	08:19 16:41	07:07 17:49	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	08:22 16:04	08:51 15:46
31	08:17 16:43	07:05 17:47	06:51 19:51	05:31 21:51	04:37 21:51	04:37 22:10	05:14 21:30	06:15 20:17	07:20 18:56	08:23 17:40	08:23 16:05	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		288										185
Sun reduction		0.20									5	0.07
Oper. time red.		0.98									0.08	0.98
Wind dir. red.		0.62									0.62	0.61
Total reduction		0.12									0.05	0.04
Total, real		35								44	0	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Stepi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (166)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	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	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	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 17:35	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 19:13	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	05:47 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	05:44 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	05:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	05:40 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	05:37 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	05:35 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		05:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Straumenini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March	April			May			June		
1	08:51		09:48 (B22)	08:15		07:11		06:49			05:33		06:21 (B1)	04:36		
	15:48	30	10:18 (B22)	16:45		17:48		19:53			20:55	10	06:31 (B1)	21:53		
2	08:51		09:49 (B22)	08:13		07:08		06:46			05:30			04:35		
	15:49	30	10:19 (B22)	16:47		17:50		19:55			20:58			21:54		
3	08:50		09:49 (B22)	08:11		07:06		06:43			05:28			04:34		
	15:51	30	10:19 (B22)	16:50		17:52		19:57			21:00			21:55		
4	08:50		09:49 (B22)	08:09		07:03		06:41			05:26			04:33		
	15:52	30	10:19 (B22)	16:52		17:54		19:59			21:02			21:57		
5	08:49		09:50 (B22)	08:07		07:00		06:38			05:23			04:32		
	15:53	31	10:21 (B22)	16:54		17:56		20:01			21:04			21:58		
6	08:49		09:50 (B22)	08:05		06:58		06:35			05:21			04:31		
	15:55	31	10:21 (B22)	16:56		17:58		20:03			21:06			21:59		
7	08:48		09:50 (B22)	08:03		06:55		06:33			05:19			04:30		
	15:56	32	10:22 (B22)	16:59		18:00		20:05			21:08			22:00		
8	08:48		09:50 (B22)	08:01		06:53		06:30			05:17			04:29		
	15:58	32	10:22 (B22)	17:01		18:03		20:08			21:10			22:01		
9	08:47		09:50 (B22)	07:58		06:50		06:28			05:15			04:28		
	15:59	33	10:23 (B22)	17:03		18:05		20:10			21:12			22:02		
10	08:46		09:51 (B22)	07:56		06:47		06:25			05:13			04:28		
	16:01	32	10:23 (B22)	17:05		18:07		20:12			21:14			22:03		
11	08:45		09:51 (B22)	07:54		06:45		06:22			05:11			04:27		
	16:03	33	10:24 (B22)	17:08		18:09		20:14			21:16			22:04		
12	08:44		09:52 (B22)	07:52		06:42		06:20			05:08			04:27		
	16:04	33	10:25 (B22)	17:10		18:11		20:16			21:18			22:05		
13	08:43		09:51 (B22)	07:50		06:40		06:17			05:06			04:26		
	16:06	33	10:24 (B22)	17:12		18:13		20:18			21:20			22:06		
14	08:42		09:52 (B22)	07:47		06:37		06:14			05:04			04:26		
	16:08	33	10:25 (B22)	17:14		18:15		20:20			21:22			22:07		
15	08:41		09:53 (B22)	07:45		06:34		06:12			05:03			04:26		
	16:10	33	10:26 (B22)	17:17		18:18		20:22			21:24			22:07		
16	08:40		09:53 (B22)	07:43		06:32		06:09			05:01			04:25		
	16:12	33	10:26 (B22)	17:19		18:20		20:24			21:26			22:08		
17	08:39		09:54 (B22)	07:40		06:29		06:07			04:59			04:25		
	16:14	32	10:26 (B22)	17:21		18:22		20:26			21:27			22:08		
18	08:38		09:54 (B22)	07:38		06:26		06:04		06:30 (B1)	04:57			04:25		
	16:16	32	10:26 (B22)	17:23		18:24		20:28	4	06:34 (B1)	21:29			22:09		
19	08:36		09:54 (B22)	07:36		06:24		06:02		06:28 (B1)	04:55			04:25		
	16:18	32	10:26 (B22)	17:26		18:26		20:30	8	06:36 (B1)	21:31			22:09		
20	08:35		09:55 (B22)	07:33		06:21		05:59		06:25 (B1)	04:53			04:25		
	16:20	32	10:27 (B22)	17:28		18:28		20:33	11	06:36 (B1)	21:33			22:10		
21	08:33		09:55 (B22)	07:31		06:18		05:57		06:23 (B1)	04:52			04:25		
	16:22	31	10:26 (B22)	17:30		18:30		20:35	14	06:37 (B1)	21:35			22:10		
22	08:32		09:56 (B22)	07:28		06:16		05:54		06:21 (B1)	04:50			04:25		
	16:24	30	10:26 (B22)	17:32		18:32		20:37	17	06:38 (B1)	21:37			22:10		
23	08:30		09:56 (B22)	07:26		06:13		05:52		06:18 (B1)	04:48			04:26		
	16:26	30	10:26 (B22)	17:34		18:34		20:39	19	06:37 (B1)	21:38			22:10		
24	08:29		09:58 (B22)	07:23		06:10		05:49		06:17 (B1)	04:47			04:26		
	16:28	28	10:26 (B22)	17:37		18:36		20:41	21	06:38 (B1)	21:40			22:10		
25	08:27		09:59 (B22)	07:21		06:07		05:47		06:18 (B1)	04:45			04:26		
	16:30	27	10:26 (B22)	17:39		18:38		20:43	20	06:38 (B1)	21:42			22:10		
26	08:26		10:00 (B22)	07:18		06:05		05:44		06:17 (B1)	04:44			04:27		
	16:32	25	10:25 (B22)	17:41		18:41		20:45	20	06:37 (B1)	21:43			22:10		
27	08:24		10:01 (B22)	07:16		06:02		05:42		06:17 (B1)	04:42			04:27		
	16:34	23	10:24 (B22)	17:43		18:43		20:47	19	06:36 (B1)	21:45			22:10		
28	08:22		10:02 (B22)	07:13		05:59		05:40		06:18 (B1)	04:41			04:28		
	16:36	21	10:23 (B22)	17:45		18:45		20:49	18	06:36 (B1)	21:47			22:10		
29	08:20		10:04 (B22)			06:57		05:37		06:19 (B1)	04:40			04:29		
	16:39	18	10:22 (B22)			19:47		20:51	16	06:35 (B1)	21:48			22:10		
30	08:18		10:07 (B22)			06:54		05:35		06:19 (B1)	04:38			04:29		
	16:41	12	10:19 (B22)			19:49		20:53	14	06:33 (B1)	21:50			22:09		
31	08:17		10:12 (B22)			06:51					04:37					
	16:43	3	10:15 (B22)			19:51					21:51					
Potential sun hours	235			266		366		426			508			529		
Total, worst case	885							201			10					
Sun reduction	0.13							0.50			0.57					
Oper. time red.	0.98							0.98			0.98					
Wind dir. red.	0.61							0.65			0.65					
Total reduction	0.08							0.31			0.35					
Total, real	69							63			4					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Straumenini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45 33 10:06 (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 33 10:07 (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 32 10:06 (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 32 10:06 (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 32 10:07 (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 31 10:07 (B22)
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 31 10:07 (B22)
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 31 10:08 (B22)
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 30 10:07 (B22)
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 30 10:08 (B22)
11	04:41 22:01	05:35 21:06	06:37 (B1) 19:47	07:38 18:27	07:44 16:15	09:42 (B22) 15:38 30 10:08 (B22)
12	04:42 22:00	05:37 21:04	06:29 (B1) 19:45	06:39 18:25	07:46 16:13	09:38 (B22) 15:38 29 10:09 (B22)
13	04:43 21:59	05:39 21:02	06:27 (B1) 19:42	06:41 18:22	07:49 16:11	09:36 (B22) 15:38 29 10:09 (B22)
14	04:45 21:58	05:41 20:59	06:26 (B1) 19:39	06:43 18:19	07:51 16:09	09:34 (B22) 15:38 28 10:09 (B22)
15	04:46 21:57	05:43 20:57	06:25 (B1) 19:37	06:45 18:17	07:53 16:08	09:33 (B22) 15:38 28 10:09 (B22)
16	04:48 21:55	05:45 20:54	06:25 (B1) 19:34	06:47 18:14	07:55 16:06	09:33 (B22) 15:38 28 10:10 (B22)
17	04:49 21:54	05:47 20:52	06:24 (B1) 19:31	06:49 18:12	07:57 16:04	09:32 (B22) 15:38 28 10:10 (B22)
18	04:51 21:52	05:49 20:50	06:23 (B1) 19:29	06:51 18:09	07:59 16:02	09:32 (B22) 15:38 28 10:11 (B22)
19	04:52 21:51	05:51 20:47	06:23 (B1) 19:26	06:53 18:07	08:01 16:01	10:00 (B22) 15:38 27 10:11 (B22)
20	04:54 21:49	05:53 20:45	06:24 (B1) 19:23	06:55 18:04	08:03 15:59	09:31 (B22) 15:39 27 10:11 (B22)
21	04:56 21:48	05:55 20:42	06:26 (B1) 19:20	06:57 18:02	08:05 15:58	09:30 (B22) 15:39 27 10:12 (B22)
22	04:57 21:46	05:57 20:40	06:28 (B1) 19:18	06:59 17:59	08:07 15:56	09:31 (B22) 15:39 27 10:12 (B22)
23	04:59 21:45	05:59 20:37	06:30 (B1) 19:15	07:01 17:57	08:09 15:55	09:31 (B22) 15:40 27 10:13 (B22)
24	05:01 21:43	06:01 20:35	06:32 (B1) 19:12	07:03 17:55	08:11 15:53	09:31 (B22) 15:41 27 10:13 (B22)
25	05:03 21:41	06:03 20:32	06:34 (B1) 19:10	07:05 16:52	08:13 15:52	09:31 (B22) 15:41 27 10:13 (B22)
26	05:04 21:39	06:05 20:30	06:37 (B1) 19:07	07:07 16:50	08:15 15:51	09:32 (B22) 15:42 28 10:14 (B22)
27	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	09:32 (B22) 15:43 27 10:14 (B22)
28	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	09:32 (B22) 15:44 28 10:15 (B22)
29	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	09:32 (B22) 15:45 29 10:16 (B22)
30	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	09:33 (B22) 15:46 29 10:17 (B22)
31	05:14 21:30	06:15 20:17	07:20 16:38	07:20 16:38	08:22 15:47	09:33 (B22) 15:47 30 10:18 (B22)
Potential sun hours	529	469	385	324	247	216
Total, worst case		214			544	903
Sun reduction		0.50			0.08	0.07
Oper. time red.		0.98			0.98	0.98
Wind dir. red.		0.65			0.61	0.61
Total reduction		0.31			0.05	0.04
Total, real		67			26	37

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Strauti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (57)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March	April	May	June		
1	08:51	09:52 (B22)	08:15	09:53 (B22)	07:11	06:49	05:33	06:00 (B1)	04:36			
	15:48	22	10:14 (B22)	16:45	39	10:32 (B22)	17:48	19:53	20:55	5	06:05 (B1)	21:53
2	08:50	09:52 (B22)	08:13	09:54 (B22)	07:08	06:46	05:30	05:58 (B1)	04:35			
	15:49	23	10:15 (B22)	16:47	37	10:31 (B22)	17:50	19:55	20:57	8	06:06 (B1)	21:54
3	08:50	09:51 (B22)	08:11	09:55 (B22)	07:06	06:43	05:28	05:56 (B1)	04:34			
	15:51	25	10:16 (B22)	16:50	36	10:31 (B22)	17:52	19:57	21:00	12	06:08 (B1)	21:55
4	08:50	09:51 (B22)	08:09	09:56 (B22)	07:03	06:41	05:26	05:54 (B1)	04:33			
	15:52	26	10:17 (B22)	16:52	35	10:31 (B22)	17:54	19:59	21:02	14	06:08 (B1)	21:57
5	08:49	09:51 (B22)	08:07	09:58 (B22)	07:00	06:38	05:23	05:52 (B1)	04:32			
	15:53	27	10:18 (B22)	16:54	32	10:30 (B22)	17:56	20:01	21:04	17	06:09 (B1)	21:58
6	08:49	09:51 (B22)	08:05	09:58 (B22)	06:58	06:35	05:21	05:50 (B1)	04:31			
	15:55	28	10:19 (B22)	16:56	30	10:28 (B22)	17:58	20:03	21:06	19	06:09 (B1)	21:59
7	08:48	09:51 (B22)	08:03	10:00 (B22)	06:55	06:33	05:19	05:49 (B1)	04:30			
	15:56	29	10:20 (B22)	16:59	27	10:27 (B22)	18:00	20:05	21:08	21	06:10 (B1)	22:00
8	08:48	09:51 (B22)	08:01	10:02 (B22)	06:53	06:30	05:17	05:49 (B1)	04:29			
	15:58	30	10:21 (B22)	17:01	24	10:26 (B22)	18:03	20:08	21:10	21	06:10 (B1)	22:01
9	08:47	09:51 (B22)	07:58	10:03 (B22)	06:50	06:28	05:15	05:49 (B1)	04:28			
	15:59	31	10:22 (B22)	17:03	20	10:23 (B22)	18:05	20:10	21:12	21	06:10 (B1)	22:02
10	08:46	09:51 (B22)	07:56	10:07 (B22)	06:47	06:25	05:13	05:49 (B1)	04:28			
	16:01	32	10:23 (B22)	17:05	13	10:20 (B22)	18:07	20:12	21:14	20	06:09 (B1)	22:03
11	08:45	09:51 (B22)	07:54	06:45	06:22	05:11	05:49 (B1)	04:27				
	16:03	33	10:24 (B22)	17:08	18:09	20:14	21:16	20	06:09 (B1)	22:04		
12	08:44	09:51 (B22)	07:52	06:42	06:20	05:08	05:49 (B1)	04:27				
	16:04	34	10:25 (B22)	17:10	18:11	20:16	21:18	19	06:08 (B1)	22:05		
13	08:43	09:50 (B22)	07:49	06:40	06:17	05:06	05:49 (B1)	04:26				
	16:06	35	10:25 (B22)	17:12	18:13	20:18	21:20	19	06:08 (B1)	22:06		
14	08:42	09:50 (B22)	07:47	06:37	06:14	05:04	05:50 (B1)	04:26				
	16:08	36	10:26 (B22)	17:14	18:15	20:20	21:22	18	06:08 (B1)	22:07		
15	08:41	09:50 (B22)	07:45	06:34	06:12	05:03	05:51 (B1)	04:26				
	16:10	36	10:26 (B22)	17:17	18:18	20:22	21:24	16	06:07 (B1)	22:07		
16	08:40	09:50 (B22)	07:43	06:32	06:09	05:01	05:51 (B1)	04:25				
	16:12	38	10:28 (B22)	17:19	18:20	20:24	21:25	14	06:05 (B1)	22:08		
17	08:39	09:50 (B22)	07:40	06:29	06:07	04:59	05:53 (B1)	04:25				
	16:14	39	10:29 (B22)	17:21	18:22	20:26	21:27	12	06:05 (B1)	22:08		
18	08:37	09:50 (B22)	07:38	06:26	06:04	04:57	05:55 (B1)	04:25				
	16:16	39	10:29 (B22)	17:23	18:24	20:28	21:29	8	06:03 (B1)	22:09		
19	08:36	09:50 (B22)	07:36	06:24	06:02	04:55						
	16:18	39	10:29 (B22)	17:26	18:26	20:30	21:31					
20	08:35	09:50 (B22)	07:33	06:21	05:59	04:53						
	16:20	41	10:31 (B22)	17:28	18:28	20:33	21:33					
21	08:33	09:50 (B22)	07:31	06:18	05:57	04:52						
	16:22	41	10:31 (B22)	17:30	18:30	20:35	21:35					
22	08:32	09:50 (B22)	07:28	06:16	05:54	04:50						
	16:24	41	10:31 (B22)	17:32	18:32	20:37	21:37					
23	08:30	09:50 (B22)	07:26	06:13	05:52	04:48						
	16:26	41	10:31 (B22)	17:34	18:34	20:39	21:38					
24	08:29	09:51 (B22)	07:23	06:10	05:49	04:47						
	16:28	41	10:32 (B22)	17:37	18:36	20:41	21:40					
25	08:27	09:51 (B22)	07:21	06:07	05:47	04:45						
	16:30	42	10:33 (B22)	17:39	18:38	20:43	21:42					
26	08:26	09:51 (B22)	07:18	06:05	05:44	04:44						
	16:32	42	10:33 (B22)	17:41	18:41	20:45	21:43					
27	08:24	09:52 (B22)	07:16	06:02	05:42	04:42						
	16:34	41	10:33 (B22)	17:43	18:43	20:47	21:45					
28	08:22	09:52 (B22)	07:13	05:59	05:40	04:41						
	16:36	41	10:33 (B22)	17:45	18:45	20:49	21:47					
29	08:20	09:52 (B22)		06:57	05:37	04:40						
	16:39	41	10:33 (B22)		19:47	20:51	21:48					
30	08:18	09:53 (B22)		06:54	05:35	04:38						
	16:41	40	10:33 (B22)		19:49	20:53	21:50					
31	08:17	09:54 (B22)		06:51		04:37						
	16:43	39	10:33 (B22)		19:51	21:51						
Potential sun hours	235		266		366	426	508			529		
Total, worst case	1093		293				284					
Sun reduction	0.13		0.20				0.57					
Oper. time red.	0.98		0.98				0.98					
Wind dir. red.	0.61		0.61				0.67					
Total reduction	0.08		0.12				0.36					
Total, real	85		34				102					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Strauti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (57)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	05:59 (B1) 20:14	06:17 18:54	07:17 16:36	07:23 14
2	04:31 22:09	05:18 21:26	05:59 (B1) 20:11	06:19 18:51	07:19 16:34	09:36 (B22) 15:45
3	04:32 22:08	05:19 21:24	05:59 (B1) 20:09	06:21 18:48	07:21 16:32	09:32 (B22) 15:43
4	04:33 22:07	05:21 21:22	05:59 (B1) 20:06	06:23 18:46	07:23 16:29	09:29 (B22) 15:42
5	04:34 22:07	05:23 21:20	05:58 (B1) 20:03	06:25 18:43	07:25 16:27	09:28 (B22) 15:42
6	04:35 22:06	05:25 21:17	05:58 (B1) 20:01	06:27 18:40	07:27 16:25	09:27 (B22) 15:41
7	04:36 22:05	05:27 21:15	06:00 (B1) 19:58	06:29 18:38	07:36 16:23	09:26 (B22) 15:40
8	04:37 22:04	05:29 21:13	06:02 (B1) 19:55	06:31 18:35	07:38 16:21	09:26 (B22) 15:40
9	04:38 22:03	05:31 21:11	06:04 (B1) 19:53	06:33 18:32	07:40 16:19	09:25 (B22) 15:39
10	04:39 22:02	05:33 21:08	06:06 (B1) 19:50	06:35 18:30	07:42 16:17	09:25 (B22) 15:39
11	04:41 22:01	05:35 21:06	06:07 (B1) 19:47	06:37 18:27	07:44 16:15	09:24 (B22) 15:38
12	04:42 22:00	05:37 21:04	06:09 (B1) 19:45	06:39 18:25	07:46 16:13	09:24 (B22) 15:38
13	04:43 21:59	05:39 21:02	06:11 19:42	06:41 18:22	07:49 16:11	09:24 (B22) 15:38
14	04:45 21:58	05:41 20:59	06:13 19:39	06:43 18:19	07:51 16:09	09:24 (B22) 15:38
15	04:46 21:57	05:43 20:57	06:15 19:37	06:45 18:17	07:53 16:08	09:24 (B22) 15:38
16	04:48 21:55	05:45 20:54	06:17 19:34	06:47 18:14	07:55 16:06	09:24 (B22) 15:38
17	04:49 21:54	05:47 20:52	06:19 19:31	06:49 18:12	07:57 16:04	09:24 (B22) 15:38
18	04:51 21:52	05:49 20:50	06:21 19:29	06:51 18:09	07:59 16:02	09:25 (B22) 15:38
19	04:52 21:51	05:51 20:47	06:23 19:26	06:53 18:07	08:01 16:01	09:25 (B22) 15:38
20	04:54 21:49	05:53 20:45	06:25 19:23	06:55 18:04	08:03 15:59	09:25 (B22) 15:39
21	04:56 21:48	05:55 20:42	06:27 19:20	06:57 18:02	08:05 15:58	09:25 (B22) 15:39
22	04:57 21:46	05:57 20:40	06:29 19:18	06:59 17:59	08:07 15:56	09:26 (B22) 15:39
23	04:59 21:45	05:59 20:37	06:31 19:15	07:01 17:57	08:09 15:55	09:27 (B22) 15:40
24	05:01 21:43	06:01 20:35	06:33 19:12	07:03 17:55	08:11 15:53	09:27 (B22) 15:41
25	05:03 21:41	06:03 20:32	06:35 19:10	07:05 16:52	08:13 15:52	09:27 (B22) 15:41
26	05:04 21:39	06:04 (B1) 20:30	06:37 19:07	07:10 16:50	08:15 15:51	09:28 (B22) 15:42
27	05:06 21:38	06:06 (B1) 20:27	06:39 19:04	07:12 16:47	08:17 15:49	09:30 (B22) 15:43
28	05:08 21:36	06:08 (B1) 20:24	06:41 19:02	07:14 16:45	08:19 15:48	09:30 (B22) 15:44
29	05:10 21:34	06:01 (B1) 20:22	06:43 18:59	07:16 16:43	08:21 15:47	09:31 (B22) 15:45
30	05:12 21:32	06:00 (B1) 20:19	06:45 18:56	07:18 16:40	08:22 15:46	09:32 (B22) 15:46
31	05:14 21:30	06:00 (B1) 20:17	06:47 18:54	07:20 16:38	09:42 (B22) 09:43 (B22)	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	96	194				644
Sun reduction	0.49	0.50			1	0.07
Oper. time red.	0.98	0.98			0.26	0.07
Wind dir. red.	0.67	0.67			0.98	0.98
Total reduction	0.31	0.32			0.61	0.61
Total, real	30	61			0.15	0.04
					52	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Strautini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (36)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	09:32 (B22) 16:45	08:15 16:53	09:34 (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
2	08:51 15:49	09:31 (B22) 16:47	08:13 16:51	09:36 (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	07:19 16:34
3	08:50 15:51	09:30 (B22) 16:50	08:11 16:59	09:39 (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	07:21 16:32
4	08:50 15:52	09:29 (B22) 16:52	08:09 16:52	09:41 (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
5	08:49 15:53	09:28 (B22) 16:54	08:05 16:54	09:42 (B22) 17:56	07:01 19:56	06:38 20:51	05:23 21:04	04:32 21:58	04:34 22:07	05:23 20:03	06:25 18:43	07:25 16:31
6	08:49 15:55	09:28 (B22) 16:56	08:05 16:56	09:42 (B22) 17:58	07:01 19:58	06:38 20:53	05:21 21:06	04:31 21:59	04:35 22:06	05:25 20:01	06:27 18:40	07:27 16:25
7	08:48 15:56	09:28 (B22) 16:59	08:03 16:59	09:43 (B22) 17:59	07:00 19:59	06:37 21:03	05:19 21:08	04:30 22:00	04:36 22:05	05:27 20:15	06:29 18:38	07:30 16:23
8	08:48 15:58	09:28 (B22) 17:01	08:01 17:01	09:43 (B22) 17:58	07:00 19:58	06:37 21:03	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 18:35	07:32 16:21
9	08:47 15:59	09:27 (B22) 17:03	07:58 17:03	09:44 (B22) 17:56	06:59 19:57	06:28 20:51	05:15 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 18:32	07:34 16:19
10	08:46 16:01	09:27 (B22) 17:05	07:56 17:05	09:44 (B22) 17:54	06:58 19:57	06:25 20:51	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 18:30	07:36 16:17
11	08:45 16:03	09:27 (B22) 17:08	07:54 17:08	09:44 (B22) 17:52	06:57 19:59	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 18:27	07:38 16:15
12	08:44 16:04	09:27 (B22) 17:10	07:52 17:10	09:45 (B22) 17:50	06:56 19:58	06:20 20:56	05:08 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 18:25	07:40 16:13
13	08:43 16:06	09:27 (B22) 17:12	07:50 17:12	09:45 (B22) 17:52	06:55 19:59	06:17 20:57	05:06 21:20	04:26 22:06	04:43 22:02	05:39 21:59	06:41 18:22	07:42 16:11
14	08:42 16:08	09:27 (B22) 17:14	07:47 17:14	09:45 (B22) 17:50	06:54 19:58	06:15 20:58	05:04 21:22	04:26 22:07	04:45 22:02	05:41 20:59	06:43 18:20	07:44 16:09
15	08:41 16:10	09:27 (B22) 17:17	07:45 17:17	09:46 (B22) 17:51	06:53 19:59	06:12 20:59	05:03 21:24	04:26 22:07	04:46 22:02	05:43 20:57	06:45 18:17	07:46 16:08
16	08:40 16:12	09:27 (B22) 17:19	07:43 17:19	09:46 (B22) 17:52	06:52 19:59	06:09 20:59	05:01 21:26	04:25 22:08	04:48 22:05	05:45 20:54	06:47 18:14	07:48 16:06
17	08:39 16:14	09:27 (B22) 17:21	07:40 17:21	09:47 (B22) 17:53	06:51 19:59	06:07 20:59	04:59 21:27	04:25 22:09	04:49 22:05	05:47 20:52	06:49 18:12	07:50 16:04
18	08:38 16:16	09:27 (B22) 17:23	07:38 17:23	09:47 (B22) 17:54	06:50 19:59	06:06 20:59	04:57 21:29	04:25 22:09	04:51 22:05	05:49 20:50	06:51 18:09	07:52 16:02
19	08:36 16:18	09:27 (B22) 17:26	07:36 17:26	09:48 (B22) 17:55	06:48 19:59	06:02 20:59	04:55 21:31	04:25 22:09	04:52 22:05	05:51 20:47	06:53 18:07	07:55 16:01
20	08:35 16:20	09:27 (B22) 17:28	07:33 17:28	09:48 (B22) 17:56	06:47 19:59	06:01 20:59	04:53 21:33	04:25 22:10	04:54 22:06	05:53 20:45	06:55 18:04	07:57 15:59
21	08:33 16:22	09:27 (B22) 17:30	07:31 17:30	09:49 (B22) 17:57	06:45 19:59	06:05 20:59	04:52 21:35	04:25 22:10	04:56 22:06	05:55 20:42	06:57 18:02	07:59 15:58
22	08:32 16:24	09:27 (B22) 17:32	07:28 17:32	09:49 (B22) 17:58	06:44 19:59	06:04 20:59	04:50 21:37	04:25 22:10	04:57 22:06	05:57 20:40	06:59 17:59	08:01 15:56
23	08:30 16:26	09:27 (B22) 17:34	07:26 17:34	09:50 (B22) 17:59	06:43 19:59	06:03 20:59	04:48 21:38	04:26 22:10	04:59 22:05	05:59 20:37	07:01 17:57	08:09 15:55
24	08:29 16:28	09:27 (B22) 17:36	07:23 17:36	09:50 (B22) 18:00	06:42 19:59	06:02 20:59	04:47 21:40	04:26 22:10	05:01 22:05	06:01 20:35	07:03 17:55	08:11 15:53
25	08:27 16:30	09:27 (B22) 17:38	07:21 17:38	09:51 (B22) 18:01	06:41 19:59	06:01 20:59	04:45 21:42	04:26 22:10	05:03 22:05	06:03 20:32	07:05 17:52	08:13 15:52
26	08:26 16:32	09:27 (B22) 17:41	07:18 17:41	09:51 (B22) 18:02	06:40 19:59	06:00 20:59	04:44 21:43	04:27 22:10	05:04 22:05	06:05 20:30	07:07 17:50	08:15 15:51
27	08:24 16:34	09:27 (B22) 17:43	07:16 17:43	09:52 (B22) 18:03	06:39 19:59	06:00 20:59	04:43 21:45	04:27 22:10	05:06 22:05	06:07 20:27	07:09 17:47	08:17 15:49
28	08:22 16:36	09:27 (B22) 17:45	07:13 17:45	09:52 (B22) 18:04	06:38 19:59	06:00 20:59	04:41 21:47	04:28 22:10	05:08 22:04	06:09 20:24	07:11 17:45	08:19 15:48
29	08:20 16:39	09:27 (B22) 17:47	07:11 17:47	09:53 (B22) 18:05	06:37 19:59	06:00 20:59	04:40 21:48	04:29 22:10	05:10 22:02	06:11 20:22	07:13 17:43	08:21 15:47
30	08:19 16:41	09:27 (B22) 17:49	07:09 17:49	09:53 (B22) 18:06	06:36 19:59	06:00 20:59	04:38 21:50	04:29 22:09	05:12 22:01	06:13 20:19	07:15 17:41	08:22 15:46
31	08:17 16:43	09:27 (B22) 17:51	07:07 17:51	09:54 (B22) 18:07	06:35 19:59	06:00 20:59	04:37 21:51	04:37 22:09	05:14 22:01	06:15 20:17	07:20 17:38	08:24 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	695	46									580	168
Sun reduction	0.13	0.20									0.08	0.07
Oper. time red.	0.98	0.98									0.98	0.98
Wind dir. red.	0.60	0.60									0.60	0.60
Total reduction	0.08	0.12									0.05	0.04
Total, real	55	5									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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Suš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (10)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January		February	March	April	May	June	July	August	September	October	November	December	
1	08:51 15:48 43	10:50 (B17) 11:33 (B17) 16:45	08:15 07:11 17:47	07:11 06:49 19:53	05:32 20:55 21:53	04:35 21:53 22:09	04:30 22:09 21:28	04:30 22:09 20:14	05:15 21:28 18:53	06:17 21:28 16:36	07:17 21:28 15:45	07:23 21:28 13:18	08:24 21:28 11:18 (B17)	10:37 (B17)
2	08:51 15:49 42	10:51 (B17) 11:33 (B17) 16:47	08:13 07:08 17:50	07:08 06:46 19:55	05:30 20:57 21:54	04:34 21:54 22:09	04:30 22:09 21:26	04:30 22:09 20:11	05:17 21:26 18:51	06:19 21:26 16:34	07:19 21:26 15:44	07:25 21:26 13:19	08:26 21:26 11:19 (B17)	10:38 (B17)
3	08:50 15:50 42	10:51 (B17) 11:33 (B17) 16:49	08:11 07:06 17:52	07:06 06:43 19:57	05:28 21:00 21:55	04:33 21:55 22:08	04:31 22:08 21:24	04:31 22:08 20:09	05:19 22:08 18:48	06:21 22:08 16:31	07:21 22:08 15:43	07:27 22:08 13:20	08:28 22:08 11:20 (B17)	10:38 (B17)
4	08:50 15:52 43	10:51 (B17) 11:34 (B17) 16:52	08:09 07:03 17:54	07:03 06:41 19:59	05:25 21:02 21:57	04:32 21:57 22:07	04:32 22:07 21:22	04:32 22:07 20:06	05:21 22:07 18:45	06:23 22:07 16:29	07:23 22:07 15:42	07:29 22:07 13:21	08:29 22:07 11:19 (B17)	10:37 (B17)
5	08:49 15:53 43	10:52 (B17) 11:35 (B17) 16:54	08:07 07:00 17:56	07:00 06:38 20:01	05:23 21:04 21:58	04:31 21:58 22:07	04:33 22:07 21:19	04:33 22:07 20:03	05:23 22:07 18:43	06:25 22:07 16:27	07:25 22:07 15:41	07:31 22:07 13:22	08:31 22:07 11:20 (B17)	10:38 (B17)
6	08:49 15:54 43	10:52 (B17) 11:35 (B17) 16:56	08:05 07:58 17:58	06:58 06:35 20:03	05:21 21:06 21:59	04:30 22:06 22:06	04:34 22:06 21:17	04:34 22:06 20:01	05:25 22:06 18:40	06:27 22:06 16:25	07:27 22:06 15:41	07:33 22:06 13:23	08:32 22:06 11:21 (B17)	10:39 (B17)
7	08:48 15:56 42	10:53 (B17) 11:35 (B17) 16:58	08:03 07:51 18:00	06:55 06:33 20:05	05:19 21:08 22:00	04:30 22:05 22:05	04:35 22:05 21:15	04:35 22:05 20:01	05:27 22:05 18:38	06:29 22:05 16:23	07:29 22:05 15:40	07:36 22:05 13:24	08:34 22:05 11:21 (B17)	10:38 (B17)
8	08:48 15:58 42	10:53 (B17) 11:35 (B17) 17:01	08:00 07:51 18:02	06:53 06:30 20:07	05:17 21:10 22:01	04:29 22:04 22:04	04:37 22:04 21:13	04:37 22:04 20:01	05:29 22:04 18:35	06:31 22:04 16:21	07:31 22:04 15:39	07:38 22:04 13:25	08:35 22:04 11:22 (B17)	10:39 (B17)
9	08:47 15:59 42	10:54 (B17) 11:36 (B17) 17:03	07:58 07:51 18:05	06:50 06:27 20:10	05:14 21:12 22:02	04:28 22:02 22:02	04:38 22:02 21:11	04:38 22:02 20:01	05:31 22:02 18:32	06:33 22:02 16:19	07:34 22:02 15:39	07:40 22:02 13:26	08:37 22:02 11:23 (B17)	10:40 (B17)
10	08:46 16:01 42	10:54 (B17) 11:36 (B17) 17:05	07:56 07:51 18:07	06:47 06:25 20:12	05:12 21:14 22:03	04:28 22:03 22:03	04:39 22:03 21:11	04:39 22:03 20:01	05:33 22:03 18:30	06:35 22:03 16:17	07:36 22:03 15:38	07:42 22:03 13:27	08:38 22:03 11:23 (B17)	10:40 (B17)
11	08:45 16:02 41	10:55 (B17) 11:36 (B17) 17:07	07:54 07:51 18:09	06:45 06:22 20:14	05:10 21:16 22:04	04:27 22:04 22:04	04:40 22:04 21:11	04:40 22:04 20:01	05:35 22:04 18:27	06:37 22:04 16:15	07:38 22:04 15:38	07:44 22:04 13:28	08:39 22:04 11:23 (B17)	10:40 (B17)
12	08:44 16:04 41	10:56 (B17) 11:36 (B17) 17:10	07:52 07:51 18:11	06:42 06:19 20:16	05:08 21:18 22:05	04:26 22:05 22:05	04:42 22:05 21:11	04:42 22:05 20:01	05:37 22:05 18:24	06:39 22:05 16:11	07:40 22:05 15:38	07:46 22:05 13:29	08:40 22:05 11:23 (B17)	10:41 (B17)
13	08:43 16:06 40	10:56 (B17) 11:36 (B17) 17:12	07:49 07:51 18:13	06:39 06:17 20:18	05:06 21:20 22:06	04:26 22:06 22:06	04:43 22:06 21:11	04:43 22:06 20:01	05:39 22:06 18:22	06:41 22:06 16:11	07:42 22:06 15:38	07:49 22:06 13:30	08:42 22:06 11:24 (B17)	10:41 (B17)
14	08:42 16:08 40	10:57 (B17) 11:37 (B17) 17:14	07:47 07:51 18:15	06:37 06:14 20:20	05:04 21:22 22:07	04:26 22:07 22:07	04:44 22:07 21:11	04:44 22:07 20:01	05:41 22:07 18:22	06:43 22:07 16:11	07:44 22:07 15:38	07:51 22:07 13:31	08:43 22:07 11:24 (B17)	10:42 (B17)
15	08:41 16:10 39	10:58 (B17) 11:37 (B17) 17:16	07:45 07:51 18:17	06:34 06:12 20:22	05:02 21:24 22:07	04:25 22:07 22:07	04:46 22:07 21:11	04:46 22:07 20:01	05:43 22:07 18:22	06:45 22:07 16:10	07:46 22:07 15:38	07:53 22:07 13:32	08:44 22:07 11:24 (B17)	10:42 (B17)
16	08:40 16:12 39	10:58 (B17) 11:37 (B17) 17:19	07:43 07:51 18:19	06:31 06:09 20:24	05:00 21:25 22:08	04:25 22:08 22:08	04:47 22:08 21:11	04:47 22:08 20:01	05:45 22:08 18:22	06:47 22:08 16:07	07:48 22:08 15:37	07:55 22:08 13:33	08:45 22:08 11:25 (B17)	10:42 (B17)
17	08:39 16:13 38	10:59 (B17) 11:37 (B17) 17:21	07:40 07:51 18:22	06:29 06:07 20:26	04:58 21:27 22:09	04:25 22:09 22:09	04:49 22:09 21:11	04:49 22:09 20:01	05:47 22:09 18:22	06:49 22:09 16:04	07:50 22:09 15:38	07:57 22:09 13:34	08:46 22:09 11:26 (B17)	10:43 (B17)
18	08:37 16:15 36	11:00 (B17) 11:36 (B17) 17:23	07:38 07:51 18:24	06:26 06:04 20:28	04:57 21:29 22:09	04:25 22:09 22:09	04:51 22:09 21:11	04:51 22:09 20:01	05:49 22:09 18:09	06:51 22:09 16:02	07:52 22:09 15:38	07:59 22:09 13:35	08:46 22:09 11:26 (B17)	10:44 (B17)
19	08:36 16:17 36	11:00 (B17) 11:36 (B17) 17:25	07:35 07:51 18:26	06:23 06:01 20:30	04:55 21:31 22:09	04:25 22:09 22:09	04:52 22:09 21:11	04:52 22:09 20:01	05:51 22:09 18:07	06:53 22:09 16:00	07:54 22:09 15:38	08:01 22:09 13:36	08:47 22:09 11:27 (B17)	10:44 (B17)
20	08:35 16:19 34	11:02 (B17) 11:36 (B17) 17:28	07:33 07:51 18:28	06:21 05:59 20:32	04:53 21:33 22:10	04:25 22:10 22:10	04:54 22:10 21:49	04:54 22:10 20:01	05:53 22:10 18:04	06:55 22:10 15:59	07:57 22:10 15:38	08:03 22:10 13:37	08:48 22:10 11:27 (B17)	10:44 (B17)
21	08:33 16:21 32	11:03 (B17) 11:35 (B17) 17:30	07:31 07:51 18:30	06:18 05:56 20:35	04:51 21:35 22:10	04:25 22:10 22:10	04:55 22:10 21:48	04:55 22:10 20:01	05:55 22:10 18:02	06:57 22:10 15:57	07:59 22:10 15:39	08:05 22:10 13:38	08:49 22:10 11:28 (B17)	10:45 (B17)
22	08:32 16:23 30	11:04 (B17) 11:34 (B17) 17:32	07:28 07:51 18:32	06:15 05:54 20:37	04:50 21:37 22:10	04:25 22:10 22:10	04:57 22:10 21:46	04:57 22:10 20:01	05:57 22:10 18:02	06:59 22:10 15:56	08:01 22:10 15:39	08:07 22:10 13:39	08:49 22:10 11:28 (B17)	10:45 (B17)
23	08:30 16:26 28	11:05 (B17) 11:33 (B17) 17:34	07:26 07:51 18:34	06:13 05:51 20:39	04:48 21:38 22:10	04:25 22:10 22:10	04:59 22:10 21:45	04:59 22:10 20:01	05:59 22:10 18:02	07:01 22:10 15:54	08:03 22:10 15:40	08:09 22:10 13:40	08:50 22:10 11:29 (B17)	10:46 (B17)
24	08:29 16:28 26	11:07 (B17) 11:33 (B17) 17:36	07:23 07:51 18:36	06:10 05:49 20:41	04:46 21:40 22:10	04:26 22:10 22:10	05:01 22:10 21:43	05:01 22:10 20:01	06:01 22:10 18:02	07:03 22:10 15:53	08:05 22:10 15:40	08:11 22:10 13:41	08:50 22:10 11:29 (B17)	10:46 (B17)
25	08:27 16:30 23	11:09 (B17) 11:32 (B17) 17:39	07:21 07:51 18:38	06:07 05:47 20:43	04:45 21:42 22:10	04:26 22:10 22:10	05:02 22:10 21:41	05:02 22:10 20:01	06:03 22:10 18:02	07:05 22:10 15:52	08:07 22:10 15:41	08:13 22:10 13:42	08:50 22:10 11:29 (B17)	10:47 (B17)
26	08:26 16:32 19	11:11 (B17) 11:30 (B17) 17:41	07:18 07:51 18:40	06:05 05:44 20:45	04:43 21:43 22:10	04:26 22:10 22:10	05:04 22:10 21:39	05:04 22:10 20:01	06:05 22:10 18:02	07:07 22:10 15:50	08:09 22:10 15:42	08:15 22:10 13:43	08:51 22:10 11:29 (B17)	10:47 (B17)
27	08:24 16:34 13	11:14 (B17) 11:27 (B17) 17:43	07:16 07:13 17:45	06:02 05:42 18:42	04:42 21:45 22:10	04:27 22:10 22:10	05:06 22:10 21:38	05:06 22:10 20:01	06:07 22:10 18:02	07:09 22:10 15:49	08:12 22:10 15:43	08:17 22:10 13:44	08:51 22:10 11:30 (B17)	10:47 (B17)
28	08:22 16:36		07:13	05:59 18:45	05:39 20:49	04:41 21:47	04:28 22:10	05:08 20:24	06:09 21:01	07:11 16:45	08:19 15:48	08:25 11:17 (B17)	10:48 15:43	11:30 (B17)
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 16:43	08:21 15:47	08:27 11:17 (B17)	10:48 15:44	11:31 (B17)
30	08:18 16:41			06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:22 16:40	08:28 11:18 (B17)	10:49 15:45	11:32 (B17)
31	08:17 16:43			06:51 19:51		04:37 21:51		05:13 20:17	06:15 20:17	07:20 16:38	08:22 15:46	08:28 11:18 (B17)	10:50 15:46	11:32 (B17)
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216		
Total, worst case	979											514	1319	
Sun reduction	0.13											0.08	0.07	
Oper. time red.	0.98											0.98	0.98	
Wind dir. red.	0.60											0.60	0.60	
Total reduction	0.08											0.05	0.04	
Total, real	76										25		54	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Sipolini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (86)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (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	06:49 (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
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 16:57	06:55 17:58	06:33 20:03	05:19 21:06	04:30 21:59	04:36 22:06	05:27 21:17	06:29 20:01	07:30 18:40	07:36 16:25	08:34 15:41
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9	08:47 15:58	07:58 17:01	06:50 18:03	06:28 20:08	05:15 21:10	04:29 22:01	04:38 22:04	05:31 21:13	06:33 19:56	07:34 18:35	07:40 16:21	08:37 15:40
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11	08:45 16:01	07:54 17:06	06:45 18:07	06:22 20:12	05:11 21:14	04:28 22:03	04:41 22:02	05:35 21:08	06:37 19:50	07:38 18:30	07:44 16:17	08:39 15:39
12	08:44 16:03	07:52 17:08	06:42 18:09	06:20 20:14	05:09 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:48	07:40 18:27	07:46 16:15	08:40 15:39
13	08:43 16:05	07:50 17:10	06:40 18:11	06:17 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 16:06	07:47 17:12	06:37 18:13	06:15 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 16:08	07:45 17:14	06:36 18:16	06:12 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 16:10	07:43 17:17	06:32 18:18	06:09 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 16:12	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	08:37 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	07:52 18:12	07:59 16:04	08:46 15:38
19	08:36 16:16	07:36 17:23	06:24 18:24	06:02 20:28	04:55 21:29	04:25 22:09	04:53 21:52	05:51 20:50	06:53 19:29	07:55 18:09	08:01 16:03	08:47 15:38
20	08:35 16:20	07:33 17:26	06:21 18:26	05:59 20:31	04:54 21:31	04:25 22:09	04:54 21:51	05:53 20:47	06:55 19:26	07:57 18:07	08:03 16:01	08:48 15:38
21	08:33 16:22	07:31 17:28	06:18 18:28	05:57 20:33	04:52 21:33	04:26 22:10	04:56 21:49	05:55 20:45	06:57 19:23	07:59 18:05	08:05 15:59	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	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:16	08:21 15:47	08:51 15:45
30	08:19 16:41	07:10 17:48	05:54 18:48	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	07:08 17:51	05:52 18:51	05:33 20:54	04:37 21:51	04:31 21:50	05:14 20:17	06:15 20:10	07:17 18:57	08:20 17:19	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				369					337			
Sun reduction				0.50					0.43			
Oper. time red.				0.98					0.98			
Wind dir. red.				0.66					0.66			
Total reduction				0.32					0.27			
Total, real				119				108	10			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Turaiki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (162)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April	May	June
1	08:51		09:46 (B14)	08:15		07:11				06:49	05:33	04:36
	15:48	28	10:14 (B14)	16:45		17:48				19:53	20:55	21:53
2	08:50		09:46 (B14)	08:13		07:08				06:46	05:30	04:35
	15:49	30	10:16 (B14)	16:48		17:50				19:55	20:58	21:54
3	08:50		09:46 (B14)	08:11		07:06				06:43	05:28	04:34
	15:51	30	10:16 (B14)	16:50		17:52				19:57	21:00	21:55
4	08:50		09:46 (B14)	08:09		07:03				06:41	05:26	04:33
	15:52	30	10:16 (B14)	16:52		17:54				19:59	21:02	21:57
5	08:49		09:47 (B14)	08:07		07:01				06:38	05:23	04:32
	15:53	30	10:17 (B14)	16:54		17:56				20:01	21:04	21:58
6	08:49		09:48 (B14)	08:05		06:58				06:36	05:21	04:31
	15:55	29	10:17 (B14)	16:56		17:58				20:03	21:06	21:59
7	08:48		09:48 (B14)	08:03		06:55				06:33	05:19	04:30
	15:56	30	10:18 (B14)	16:59		18:01				20:06	21:08	22:00
8	08:48		09:48 (B14)	08:01		06:53				06:30	05:17	04:29
	15:58	30	10:18 (B14)	17:01		18:03				20:08	21:10	22:01
9	08:47		09:48 (B14)	07:58		06:50				06:28	05:15	04:29
	16:00	31	10:19 (B14)	17:03		18:05				20:10	21:12	22:02
10	08:46		09:49 (B14)	07:56		06:47				06:25	05:13	04:28
	16:01	30	10:19 (B14)	17:05		18:07				20:12	21:14	22:03
11	08:45		09:49 (B14)	07:54		06:45			07:12 (B22)	06:22	05:11	04:27
	16:03	31	10:20 (B14)	17:08		18:09	4		07:16 (B22)	06:20	05:09	04:27
12	08:44		09:50 (B14)	07:52		06:42			07:08 (B22)	06:20	05:09	04:27
	16:05	30	10:20 (B14)	17:10		18:11	13		07:21 (B22)	06:16	05:05	04:26
13	08:43		09:50 (B14)	07:50		06:40			07:05 (B22)	06:17	05:07	04:26
	16:06	30	10:20 (B14)	17:12		18:13	18		07:23 (B22)	06:18	05:05	04:26
14	08:42		09:51 (B14)	07:47		06:37			07:03 (B22)	06:15	05:05	04:26
	16:08	30	10:21 (B14)	17:14		18:15	21		07:24 (B22)	06:20	05:03	04:26
15	08:41		09:52 (B14)	07:45		06:34			07:02 (B22)	06:12	05:03	04:26
	16:10	29	10:21 (B14)	17:17		18:18	24		07:26 (B22)	06:22	05:01	04:26
16	08:40		09:52 (B14)	07:43		06:32			07:00 (B22)	06:09	05:01	04:26
	16:12	29	10:21 (B14)	17:19		18:20	26		07:26 (B22)	06:24	05:01	04:26
17	08:39		09:53 (B14)	07:40		06:29			06:59 (B22)	06:07	04:59	04:25
	16:14	28	10:21 (B14)	17:21		18:22	27		07:26 (B22)	06:26	05:00	04:25
18	08:38		09:53 (B14)	07:38		06:26			06:58 (B22)	06:04	04:57	04:25
	16:16	28	10:21 (B14)	17:23		18:24	28		07:26 (B22)	06:28	05:00	04:25
19	08:36		09:53 (B14)	07:36		06:24			06:58 (B22)	06:02	04:55	04:25
	16:18	28	10:21 (B14)	17:26		18:26	29		07:27 (B22)	06:31	05:00	04:25
20	08:35		09:55 (B14)	07:33		06:21			06:58 (B22)	05:59	04:53	04:25
	16:20	26	10:21 (B14)	17:28		18:28	28		07:26 (B22)	06:33	05:00	04:25
21	08:33		09:55 (B14)	07:31		06:18			06:57 (B22)	05:57	04:52	04:25
	16:22	25	10:20 (B14)	17:30		18:30	28		07:25 (B22)	06:35	05:00	04:25
22	08:32		09:56 (B14)	07:28		06:16			06:58 (B22)	05:54	04:50	04:26
	16:24	24	10:20 (B14)	17:32		18:32	27		07:25 (B22)	06:37	05:00	04:26
23	08:30		09:57 (B14)	07:26		06:13			06:58 (B22)	05:52	04:48	04:26
	16:26	22	10:19 (B14)	17:34		18:34	26		07:24 (B22)	06:39	05:00	04:26
24	08:29		09:59 (B14)	07:23		06:10			06:58 (B22)	05:49	04:47	04:26
	16:28	20	10:19 (B14)	17:37		18:36	25		07:23 (B22)	06:41	05:00	04:26
25	08:27		10:01 (B14)	07:21		06:08			06:59 (B22)	05:47	04:45	04:26
	16:30	17	10:18 (B14)	17:39		18:38	23		07:22 (B22)	06:43	05:00	04:26
26	08:26		10:03 (B14)	07:18		06:05			07:00 (B22)	05:44	04:44	04:27
	16:32	13	10:16 (B14)	17:41		18:41	20		07:20 (B22)	06:45	05:00	04:27
27	08:24		10:06 (B14)	07:16		06:02			07:01 (B22)	05:42	04:42	04:27
	16:34	7	10:13 (B14)	17:43		18:43	17		07:18 (B22)	06:47	05:00	04:28
28	08:22			07:13		05:59			07:04 (B22)	05:40	04:41	04:28
	16:37			17:45		18:45	12		07:16 (B22)	06:49	05:00	04:29
29	08:20					06:57				05:37	04:40	04:29
	16:39					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		715				396						
Sun reduction		0.13				0.41						
Oper. time red.		0.98				0.98						
Wind dir. red.		0.61				0.63						
Total reduction		0.08				0.25						
Total, real		56				100						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Turaiki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (162)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:46 (B22) 08:01 (B22)	07:23 16:36
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:48 (B22) 07:58 (B22)	07:25 16:34
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	07:27 15:43
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	07:29 15:42
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	07:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:33 16:25	07:33 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	07:36 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	07:38 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	07:40 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	07:42 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	07:44 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	07:46 15:38
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	07:49 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	07:51 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	07:53 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	07:55 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	07:57 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	07:59 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:01 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:03 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:05 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:07 15:39
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:09 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:11 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:13 15:41
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 15:49	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	08:23 15:46	08:23 15:46
31	05:14 21:30	06:15 20:17		08:19 17:38	08:25 15:45	08:25 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			385	25	389	881
Sun reduction			0.43	0.26	0.08	0.07
Oper. time red.			0.98	0.98	0.98	0.98
Wind dir. red.			0.63	0.63	0.61	0.61
Total reduction			0.26	0.16	0.05	0.04
Total, real			101	4	19	37

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Tireli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (99)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:08 (B14) 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	05:09 (B14) 22:08	05:09 (B14) 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	05:09 (B14) 22:08	05:09 (B14) 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	05:08 (B14) 22:07	05:10 (B14) 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	05:07 (B14) 22:07	05:11 (B14) 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	05:06 (B14) 22:06	05:12 (B14) 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	05:06 (B14) 22:05	05:13 (B14) 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	05:05 (B14) 22:04	05:14 (B14) 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	05:05 (B14) 22:03	05:15 (B14) 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	05:04 (B14) 22:02	05:16 (B14) 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	05:04 (B14) 22:01	05:18 (B14) 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	05:03 (B14) 22:00	05:19 (B14) 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	05:03 (B14) 21:59	05:19 (B14) 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:41 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	05:03 (B14) 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	05:03 (B14) 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	05:03 (B14) 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	05:02 (B14) 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 (B14) 21:52	05:49 20:50	06:51 19:29	07:52 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09	05:03 (B14) 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	05:03 (B14) 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	05:03 (B14) 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	05:03 (B14) 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:03 (B14) 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:04 (B14) 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:04 (B14) 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 (B14) 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:05 (B14) 21:37	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:06 (B14) 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:06 (B14) 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:07 (B14) 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51	04:37 21:51			05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction						390						
Oper. time red.						0.56						
Wind dir. red.						0.98						
Total reduction						0.67						
Total, real						0.36						
						142						
							92					
							0.49					
							0.98					
							0.67					
							0.32					
							30					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Tudalinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51		10:28 (B22)	08:15		07:11		06:49					05:32		06:18 (B1)	04:36		
	15:48	34	11:02 (B22)	16:45		17:48		19:53					20:55	18	06:36 (B1)	21:53		
2	08:50		10:29 (B22)	08:13		07:08		06:46					05:30		06:19 (B1)	04:35		
	15:49	34	11:03 (B22)	16:47		17:50		19:55					20:57	16	06:35 (B1)	21:54		
3	08:50		10:29 (B22)	08:11		07:06		06:43					05:28		06:21 (B1)	04:34		
	15:51	34	11:03 (B22)	16:50		17:52		19:57					21:00	13	06:34 (B1)	21:55		
4	08:50		10:29 (B22)	08:09		07:03		06:41					05:26		06:23 (B1)	04:33		
	15:52	34	11:03 (B22)	16:52		17:54		19:59					21:02	8	06:31 (B1)	21:57		
5	08:49		10:30 (B22)	08:07		07:00		06:38					05:23			04:32		
	15:53	34	11:04 (B22)	16:54		17:56		20:01					21:04			21:58		
6	08:49		10:31 (B22)	08:05		06:58		06:35					05:21			04:31		
	15:55	33	11:04 (B22)	16:56		17:58		20:03					21:06			21:59		
7	08:48		10:31 (B22)	08:03		06:55		06:33					05:19			04:30		
	15:56	33	11:04 (B22)	16:59		18:00		20:05					21:08			22:00		
8	08:48		10:32 (B22)	08:01		06:53		06:30					05:17			04:29		
	15:58	32	11:04 (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	33	11:05 (B22)	17:03		18:05		20:10					21:12			22:02		
10	08:46		10:33 (B22)	07:56		06:47		06:25					05:13			04:28		
	16:01	32	11:05 (B22)	17:05		18:07		20:12					21:14			22:03		
11	08:45		10:34 (B22)	07:54		06:45		06:22					05:10			04:27		
	16:03	31	11:05 (B22)	17:08		18:09		20:14					21:16			22:04		
12	08:44		10:35 (B22)	07:52		06:42		06:20					05:08			04:27		
	16:04	30	11:05 (B22)	17:10		18:11		20:16					21:18			22:05		
13	08:43		10:35 (B22)	07:50		06:40		06:17					05:06			04:26		
	16:06	29	11:04 (B22)	17:12		18:13		20:18					21:20			22:06		
14	08:42		10:36 (B22)	07:47		06:37		06:14					05:04			04:26		
	16:08	28	11:04 (B22)	17:14		18:15		20:20					21:22			22:07		
15	08:41		10:38 (B22)	07:45		06:34		06:12					05:02			04:26		
	16:10	27	11:05 (B22)	17:17		18:18		20:22					21:24			22:07		
16	08:40		10:38 (B22)	07:43		06:32		06:09					05:01			04:25		
	16:12	26	11:04 (B22)	17:19		18:20		20:24					21:25			22:08		
17	08:39		10:40 (B22)	07:40		06:29		06:07					04:59			04:25		
	16:14	24	11:04 (B22)	17:21		18:22		20:26					21:27			22:08		
18	08:37		10:41 (B22)	07:38		06:26		06:04					06:30 (B1)		04:57	04:25		
	16:16	22	11:03 (B22)	17:23		18:24		20:28	3	06:33 (B1)		21:29			22:09			
19	08:36		10:42 (B22)	07:36		06:24		06:02					06:28 (B1)		04:55	04:25		
	16:18	19	11:01 (B22)	17:25		18:26		20:30	8	06:36 (B1)		21:31			22:09			
20	08:35		10:45 (B22)	07:33		06:21		05:59					06:25 (B1)		04:53	04:25		
	16:20	16	11:01 (B22)	17:28		18:28		20:33	12	06:37 (B1)		21:33			22:10			
21	08:33		10:47 (B22)	07:31		06:18		05:57					06:23 (B1)		04:52	04:25		
	16:22	11	10:58 (B22)	17:30		18:30		20:35	15	06:38 (B1)		21:35			22:10			
22	08:32			07:28		06:16		05:54					06:21 (B1)		04:50	04:25		
	16:24			17:32		18:32		20:37	18	06:39 (B1)		21:37			22:10			
23	08:30			07:26		06:13		05:52					06:18 (B1)		04:48	04:26		
	16:26			17:34		18:34		20:39	21	06:39 (B1)		21:38			22:10			
24	08:29			07:23		06:10		05:49					06:18 (B1)		04:47	04:26		
	16:28			17:37		18:36		20:41	22	06:40 (B1)		21:40			22:10			
25	08:27			07:21		06:07		05:47					06:17 (B1)		04:45	04:26		
	16:30			17:39		18:38		20:43	23	06:40 (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	22	06:39 (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	22	06:39 (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	22	06:39 (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	21	06:39 (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	20	06:37 (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		596						229						55				
Sun reduction		0.13						0.50						0.57				
Oper. time red.		0.98						0.98						0.98				
Wind dir. red.		0.61						0.65						0.65				
Total reduction		0.08						0.31						0.35				
Total, real		46						71						19				

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Tadalinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August		September	October	November		December	
1	04:30 22:09	05:16 21:28		06:17 20:14	07:17 18:54	07:23 16:36		08:24 15:45	10:16 (B22) 31 10:47 (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	10:16 (B22) 32 10:48 (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	10:16 (B22) 32 10:48 (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	10:16 (B22) 32 10:48 (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	10:16 (B22) 33 10:49 (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	10:17 (B22) 33 10:50 (B22)
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	10:17 (B22) 33 10:50 (B22)
8	04:37 22:04	05:29 21:13	3	06:31 (B1) 06:38 (B1)	07:32 19:55	07:38 18:35	16:21	08:35 15:40	10:17 (B22) 34 10:51 (B22)
9	04:38 22:03	05:31 21:11	11	06:31 (B1) 06:42 (B1)	07:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39	10:17 (B22) 34 10:51 (B22)
10	04:39 22:02	05:33 21:08	14	06:30 (B1) 06:44 (B1)	07:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39	10:18 (B22) 34 10:52 (B22)
11	04:41 22:01	05:35 21:06	17	06:27 (B1) 06:44 (B1)	07:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38	10:18 (B22) 34 10:52 (B22)
12	04:42 22:00	05:37 21:04	19	06:26 (B1) 06:45 (B1)	07:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38	10:19 (B22) 34 10:53 (B22)
13	04:43 21:59	05:39 21:02	20	06:26 (B1) 06:46 (B1)	07:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38	10:19 (B22) 35 10:54 (B22)
14	04:45 21:58	05:41 20:59	21	06:25 (B1) 06:46 (B1)	07:43 19:39	07:44 18:19	07:51 16:09	08:43 15:38	10:19 (B22) 35 10:54 (B22)
15	04:46 21:57	05:43 20:57	22	06:25 (B1) 06:47 (B1)	07:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38	10:20 (B22) 34 10:54 (B22)
16	04:48 21:55	05:45 20:54	23	06:24 (B1) 06:47 (B1)	07:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38	10:20 (B22) 35 10:55 (B22)
17	04:49 21:54	05:47 20:52	23	06:24 (B1) 06:47 (B1)	07:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38	10:21 (B22) 34 10:55 (B22)
18	04:51 21:52	05:49 20:50	23	06:23 (B1) 06:46 (B1)	07:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38	10:21 (B22) 35 10:56 (B22)
19	04:52 21:51	05:51 20:47	22	06:23 (B1) 06:45 (B1)	07:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38	10:22 (B22) 35 10:57 (B22)
20	04:54 21:49	05:53 20:45	21	06:24 (B1) 06:45 (B1)	07:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39	10:22 (B22) 35 10:57 (B22)
21	04:56 21:48	05:55 20:42	18	06:26 (B1) 06:44 (B1)	07:57 19:20	07:59 18:02	08:05 15:58	10:22 (B22) 10:33 (B22)	10:23 (B22) 35 10:58 (B22)
22	04:57 21:46	05:57 20:40	15	06:28 (B1) 06:43 (B1)	07:59 19:18	08:01 17:59	08:07 15:56	10:21 (B22) 10:37 (B22)	10:23 (B22) 35 10:58 (B22)
23	04:59 21:45	05:59 20:37	12	06:30 (B1) 06:42 (B1)	07:01 19:15	08:03 17:57	08:09 15:55	10:19 (B22) 10:38 (B22)	10:24 (B22) 35 10:59 (B22)
24	05:01 21:43	06:01 20:35	8	06:32 (B1) 06:40 (B1)	07:03 19:12	08:05 17:55	08:11 15:53	10:18 (B22) 10:40 (B22)	10:24 (B22) 35 10:59 (B22)
25	05:03 21:41	06:03 20:32	3	06:34 (B1) 06:37 (B1)	07:05 19:10	07:07 16:52	08:13 15:52	10:17 (B22) 10:41 (B22)	10:24 (B22) 35 10:59 (B22)
26	05:04 21:39	06:05 20:30		07:07 19:07	07:10 16:50	08:15 15:51	10:17 (B22) 10:43 (B22)	08:51 15:42	10:25 (B22) 34 10:59 (B22)
27	05:06 21:38	06:07 20:27		07:09 19:04	07:12 16:47	08:17 15:49	10:17 (B22) 10:44 (B22)	08:51 15:43	10:25 (B22) 35 11:00 (B22)
28	05:08 21:36	06:09 20:24		07:11 19:02	07:14 16:45	08:19 15:48	10:17 (B22) 10:45 (B22)	08:51 15:44	10:26 (B22) 34 11:00 (B22)
29	05:10 21:34	06:11 20:22		07:13 18:59	07:16 16:43	08:21 15:47	10:16 (B22) 10:45 (B22)	08:51 15:45	10:26 (B22) 35 11:01 (B22)
30	05:12 21:32	06:13 20:19		07:15 18:56	07:18 16:40	08:22 15:46	10:16 (B22) 10:46 (B22)	08:51 15:46	10:27 (B22) 34 11:01 (B22)
31	05:14 21:30	06:15 20:17			07:20 16:38			08:51 15:47	10:28 (B22) 34 11:02 (B22)
Potential sun hours	529	469		385	324	247		216	
Total, worst case		295				232		1055	
Sun reduction		0.50				0.08		0.07	
Oper. time red.		0.98				0.98		0.98	
Wind dir. red.		0.65				0.61		0.61	
Total reduction		0.31				0.05		0.04	
Total, real		91				11		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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Tujas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (89)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upenes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (80)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
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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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10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
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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
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28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56760080007) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (25)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:47	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
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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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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56960040385) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (66)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51		09:51 (B22)	08:15		09:51 (B22)	07:11		06:49				05:33		06:00 (B1)	04:36		
	15:48	19	10:10 (B22)	16:45	39	10:30 (B22)	17:48		19:53				20:55	5	06:05 (B1)	21:53		
2	08:50		09:51 (B22)	08:13		09:52 (B22)	07:08		06:46				05:30		05:58 (B1)	04:35		
	15:49	21	10:12 (B22)	16:47	37	10:29 (B22)	17:50		19:55				20:57	9	06:07 (B1)	21:54		
3	08:50		09:50 (B22)	08:11		09:53 (B22)	07:06		06:43				05:28		05:56 (B1)	04:34		
	15:51	23	10:13 (B22)	16:50	36	10:29 (B22)	17:52		19:57				21:00	12	06:08 (B1)	21:55		
4	08:50		09:50 (B22)	08:09		09:54 (B22)	07:03		06:41				05:26		05:54 (B1)	04:33		
	15:52	23	10:13 (B22)	16:52	35	10:29 (B22)	17:54		19:59				21:02	15	06:09 (B1)	21:57		
5	08:49		09:50 (B22)	08:07		09:55 (B22)	07:00		06:38				05:23		05:52 (B1)	04:32		
	15:53	25	10:15 (B22)	16:54	33	10:28 (B22)	17:56		20:01				21:04	17	06:09 (B1)	21:58		
6	08:49		09:50 (B22)	08:05		09:56 (B22)	06:58		06:35				05:21		05:50 (B1)	04:31		
	15:55	26	10:16 (B22)	16:56	30	10:26 (B22)	17:58		20:03				21:06	20	06:10 (B1)	21:59		
7	08:48		09:49 (B22)	08:03		09:57 (B22)	06:55		06:33				05:19		05:49 (B1)	04:30		
	15:56	28	10:17 (B22)	16:59	28	10:25 (B22)	18:00		20:05				21:08	21	06:10 (B1)	22:00		
8	08:48		09:49 (B22)	08:01		09:59 (B22)	06:53		06:30				05:17		05:49 (B1)	04:29		
	15:58	29	10:18 (B22)	17:01	25	10:24 (B22)	18:03		20:08				21:10	21	06:10 (B1)	22:01		
9	08:47		09:49 (B22)	07:58		10:00 (B22)	06:50		06:28				05:15		05:49 (B1)	04:28		
	15:59	30	10:19 (B22)	17:03	22	10:22 (B22)	18:05		20:10				21:12	21	06:10 (B1)	22:02		
10	08:46		09:49 (B22)	07:56		10:03 (B22)	06:47		06:25				05:13		05:49 (B1)	04:28		
	16:01	31	10:20 (B22)	17:05	16	10:19 (B22)	18:07		20:12				21:14	21	06:10 (B1)	22:03		
11	08:45		09:49 (B22)	07:54		10:09 (B22)	06:45		06:22				05:11		05:49 (B1)	04:27		
	16:03	32	10:21 (B22)	17:08	5	10:14 (B22)	18:09		20:14				21:16	20	06:09 (B1)	22:04		
12	08:44		09:49 (B22)	07:52			06:42		06:20				05:08		05:49 (B1)	04:27		
	16:04	33	10:22 (B22)	17:10			18:11		20:16				21:18	19	06:08 (B1)	22:05		
13	08:43		09:48 (B22)	07:49			06:40		06:17				05:06		05:50 (B1)	04:26		
	16:06	34	10:22 (B22)	17:12			18:13		20:18				21:20	18	06:08 (B1)	22:06		
14	08:42		09:48 (B22)	07:47			06:37		06:14				05:04		05:51 (B1)	04:26		
	16:08	36	10:24 (B22)	17:14			18:15		20:20				21:22	17	06:08 (B1)	22:07		
15	08:41		09:48 (B22)	07:45			06:34		06:12				05:03		05:52 (B1)	04:26		
	16:10	36	10:24 (B22)	17:17			18:18		20:22				21:24	15	06:07 (B1)	22:07		
16	08:40		09:48 (B22)	07:43			06:32		06:09				05:01		05:52 (B1)	04:25		
	16:12	37	10:25 (B22)	17:19			18:20		20:24				21:25	13	06:05 (B1)	22:08		
17	08:39		09:49 (B22)	07:40			06:29		06:07				04:59		05:54 (B1)	04:25		
	16:14	37	10:26 (B22)	17:21			18:22		20:26				21:27	11	06:05 (B1)	22:08		
18	08:37		09:48 (B22)	07:38			06:26		06:04				04:57		05:56 (B1)	04:25		
	16:16	39	10:27 (B22)	17:23			18:24		20:28				21:29	6	06:02 (B1)	22:09		
19	08:36		09:48 (B22)	07:36			06:24		06:02				04:55			04:25		
	16:18	39	10:27 (B22)	17:26			18:26		20:30				21:31			22:09		
20	08:35		09:49 (B22)	07:33			06:21		05:59				04:53			04:25		
	16:20	39	10:28 (B22)	17:28			18:28		20:33				21:33			22:10		
21	08:33		09:48 (B22)	07:31			06:18		05:57				04:52			04:25		
	16:22	40	10:28 (B22)	17:30			18:30		20:35				21:35			22:10		
22	08:32		09:48 (B22)	07:28			06:16		05:54				04:50			04:25		
	16:24	41	10:29 (B22)	17:32			18:32		20:37				21:37			22:10		
23	08:30		09:48 (B22)	07:26			06:13		05:52				04:48			04:26		
	16:26	41	10:29 (B22)	17:34			18:34		20:39				21:38			22:10		
24	08:29		09:49 (B22)	07:23			06:10		05:49				04:47			04:26		
	16:28	41	10:30 (B22)	17:37			18:36		20:41				21:40			22:10		
25	08:27		09:49 (B22)	07:21			06:07		05:47				04:45			04:26		
	16:30	41	10:30 (B22)	17:39			18:38		20:43				21:42			22:10		
26	08:26		09:49 (B22)	07:18			06:05		05:44				04:44			04:27		
	16:32	41	10:30 (B22)	17:41			18:41		20:45				21:43			22:10		
27	08:24		09:50 (B22)	07:16			06:02		05:42				04:42			04:27		
	16:34	41	10:31 (B22)	17:43			18:43		20:47				21:45			22:10		
28	08:22		09:50 (B22)	07:13			05:59		05:40				04:41			04:28		
	16:36	41	10:31 (B22)	17:45			18:45		20:49				21:47			22:10		
29	08:20		09:50 (B22)				06:57		05:37				04:40			04:29		
	16:39	41	10:31 (B22)				19:47		20:51				21:48			22:10		
30	08:18		09:51 (B22)				06:54		05:35				04:38			04:29		
	16:41	40	10:31 (B22)				19:49		20:53	1	06:02 (B1)	06:03 (B1)	21:50			22:09		
31	08:17		09:51 (B22)				06:51						04:37					
	16:43	40	10:31 (B22)				19:51						21:51					
Potential sun hours	235			266			366		426				508			529		
Total, worst case	1065			306					1				281					
Sun reduction	0.13			0.20					0.50				0.57					
Oper. time red.	0.98			0.98					0.98				0.98					
Wind dir. red.	0.61			0.61					0.67				0.67					
Total reduction	0.08			0.12					0.32				0.36					
Total, real	82			36					0				101					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56960040385) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (66)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

July		August		September		October		November		December	
1	04:30	05:16	05:59 (B1)	06:17	07:17	07:23	09:32 (B22)	08:24	09:31 (B22)		
	22:09	21:28	20	06:19 (B1)	20:14	16:36	17	09:49 (B22)	15:45	32	10:03 (B22)
2	04:31	05:18	05:59 (B1)	06:19	07:19	07:25	09:30 (B22)	08:26	09:32 (B22)		
	22:09	21:26	20	06:19 (B1)	20:11	16:34	22	09:52 (B22)	15:44	31	10:03 (B22)
3	04:32	05:19	05:59 (B1)	06:21	07:21	07:27	09:28 (B22)	08:28	09:32 (B22)		
	22:08	21:24	21	06:20 (B1)	20:09	16:32	26	09:54 (B22)	15:43	30	10:02 (B22)
4	04:33	05:21	05:59 (B1)	06:23	07:23	07:29	09:27 (B22)	08:29	09:33 (B22)		
	22:07	21:22	21	06:20 (B1)	20:06	16:29	28	09:55 (B22)	15:42	29	10:02 (B22)
5	04:34	05:23	05:58 (B1)	06:25	07:25	07:31	09:25 (B22)	08:31	09:35 (B22)		
	22:07	21:20	21	06:19 (B1)	20:03	16:27	31	09:56 (B22)	15:42	27	10:02 (B22)
6	04:35	05:25	05:59 (B1)	06:27	07:27	07:33	09:25 (B22)	08:32	09:36 (B22)		
	22:06	21:17	20	06:19 (B1)	20:01	16:25	33	09:58 (B22)	15:41	26	10:02 (B22)
7	04:36	05:27	06:00 (B1)	06:29	07:30	07:36	09:24 (B22)	08:34	09:36 (B22)		
	22:05	21:15	19	06:19 (B1)	19:58	16:23	35	09:59 (B22)	15:40	25	10:01 (B22)
8	04:37	05:29	06:02 (B1)	06:31	07:32	07:38	09:24 (B22)	08:35	09:38 (B22)		
	22:04	21:13	17	06:19 (B1)	19:55	16:21	36	10:00 (B22)	15:40	24	10:02 (B22)
9	04:38	05:31	06:04 (B1)	06:33	07:34	07:40	09:23 (B22)	08:37	09:38 (B22)		
	22:03	21:11	14	06:18 (B1)	19:53	16:19	37	10:00 (B22)	15:39	23	10:01 (B22)
10	04:39	05:33	06:06 (B1)	06:35	07:36	07:42	09:23 (B22)	08:38	09:40 (B22)		
	22:02	21:08	11	06:17 (B1)	19:50	16:17	38	10:01 (B22)	15:39	21	10:01 (B22)
11	04:41	05:35	06:07 (B1)	06:37	07:38	07:44	09:22 (B22)	08:39	09:41 (B22)		
	22:01	21:06	8	06:15 (B1)	19:47	16:15	40	10:02 (B22)	15:38	20	10:01 (B22)
12	04:42	05:37	06:09 (B1)	06:39	07:40	07:46	09:22 (B22)	08:40	09:42 (B22)		
	22:00	21:04	4	06:13 (B1)	19:45	16:13	40	10:02 (B22)	15:38	19	10:01 (B22)
13	04:43	05:39		06:41	07:42	07:49	09:22 (B22)	08:42	09:43 (B22)		
	21:59	21:02		19:42	18:22	16:11	41	10:03 (B22)	15:38	18	10:01 (B22)
14	04:45	05:41		06:43	07:44	07:51	09:22 (B22)	08:43	09:44 (B22)		
	21:58	20:59		19:39	18:19	16:09	41	10:03 (B22)	15:38	16	10:00 (B22)
15	04:46	05:43		06:45	07:46	07:53	09:21 (B22)	08:44	09:45 (B22)		
	21:57	20:57		19:37	18:17	16:08	42	10:03 (B22)	15:38	15	10:00 (B22)
16	04:48	05:45		06:47	07:48	07:55	09:22 (B22)	08:45	09:46 (B22)		
	21:55	20:54		19:34	18:14	16:06	41	10:03 (B22)	15:38	14	10:00 (B22)
17	04:49	05:47		06:49	07:50	07:57	09:22 (B22)	08:46	09:47 (B22)		
	21:54	20:52		19:31	18:12	16:04	41	10:03 (B22)	15:38	13	10:00 (B22)
18	04:51	05:49		06:51	07:52	07:59	09:23 (B22)	08:46	09:48 (B22)		
	21:52	20:50		19:29	18:09	16:02	41	10:04 (B22)	15:38	12	10:00 (B22)
19	04:52	05:51		06:53	07:55	08:01	09:23 (B22)	08:47	09:48 (B22)		
	21:51	20:47		19:26	18:07	16:01	41	10:04 (B22)	15:38	12	10:00 (B22)
20	04:54	05:53		06:55	07:57	08:03	09:23 (B22)	08:48	09:50 (B22)		
	21:49	20:45		19:23	18:04	15:59	41	10:04 (B22)	15:39	10	10:00 (B22)
21	04:56	05:55		06:57	07:59	08:05	09:23 (B22)	08:48	09:51 (B22)		
	21:48	20:42		19:20	18:02	15:58	40	10:03 (B22)	15:39	10	10:01 (B22)
22	04:57	05:57		06:59	08:01	08:07	09:25 (B22)	08:49	09:51 (B22)		
	21:46	20:40		19:18	17:59	15:56	39	10:04 (B22)	15:39	10	10:01 (B22)
23	04:59	05:59		07:01	08:03	08:09	09:25 (B22)	08:50	09:52 (B22)		
	21:45	20:37		19:15	17:57	15:55	39	10:04 (B22)	15:40	10	10:02 (B22)
24	05:01	06:01		07:03	08:05	08:11	09:25 (B22)	08:50	09:51 (B22)		
	21:43	20:35		19:12	17:55	15:53	39	10:04 (B22)	15:41	11	10:02 (B22)
25	05:03	06:03		07:05	07:07	08:13	09:26 (B22)	08:50	09:51 (B22)		
	21:41	20:32		19:10	16:52	15:52	37	10:03 (B22)	15:41	12	10:03 (B22)
26	05:04	06:05 (B1)		07:07	07:10	08:15	09:26 (B22)	08:51	09:51 (B22)		
	21:39	8	06:13 (B1)	19:07	16:50	15:51	37	10:03 (B22)	15:42	13	10:04 (B22)
27	05:06	06:04 (B1)		07:09	07:12	08:17	09:28 (B22)	08:51	09:51 (B22)		
	21:38	12	06:16 (B1)	19:04	16:47	15:49	36	10:04 (B22)	15:43	14	10:05 (B22)
28	05:08	06:02 (B1)		07:11	07:14	08:19	09:29 (B22)	08:51	09:51 (B22)		
	21:36	14	06:16 (B1)	19:02	16:45	15:48	35	10:04 (B22)	15:44	15	10:06 (B22)
29	05:10	06:01 (B1)		07:13	07:16	08:21	09:29 (B22)	08:51	09:51 (B22)		
	21:34	16	06:17 (B1)	18:59	16:43	15:47	35	10:04 (B22)	15:45	16	10:07 (B22)
30	05:12	06:01 (B1)		07:15	07:18	08:22	09:30 (B22)	08:51	09:51 (B22)		
	21:32	17	06:18 (B1)	18:56	16:40	15:46	33	10:03 (B22)	15:46	17	10:08 (B22)
31	05:14	06:01 (B1)			07:20		09:36 (B22)		09:51 (B22)		
	21:30	18	06:19 (B1)	20:17	16:38	9	09:45 (B22)		10:10 (B22)		
Potential sun hours	529	469		385	324		247		216		
Total, worst case	85	196			9		1082		564		
Sun reduction	0.49	0.50			0.26		0.08		0.07		
Oper. time red.	0.98	0.98			0.98		0.98		0.98		
Wind dir. red.	0.67	0.67			0.61		0.61		0.61		
Total reduction	0.31	0.32			0.15		0.05		0.04		
Total, real	27	62			1		52		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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upmalas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (215)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:04	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:58	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:51	06:49 19:31	07:50 18:12	07:56 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:42	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (146)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January		February		March		April		May		June	
1	08:51		08:15	15:31 (B14)	07:11	15:58 (B22)	06:49	05:32		04:36	05:41 (B4)	
	15:48		16:45	16	15:47 (B14)	17:47	43	16:41 (B22)	19:53	20:55	21:52	22
2	08:50		08:13	15:33 (B14)	07:08	15:58 (B22)	06:46	05:30		04:35	05:42 (B4)	
	15:49		16:47	13	15:46 (B14)	17:50	43	16:41 (B22)	19:55	20:57	21:54	20
3	08:50		08:11	15:35 (B14)	07:06	15:59 (B22)	06:43	05:28		04:34	05:42 (B4)	
	15:51		16:50	10	15:45 (B14)	17:52	42	16:41 (B22)	19:57	20:59	21:55	20
4	08:50		08:09		07:03	15:59 (B22)	06:41	05:26		04:33	05:43 (B4)	
	15:52		16:52		17:54	41	16:40 (B22)	19:59	21:01	21:56	18	06:01 (B4)
5	08:49		08:07		07:00	15:59 (B22)	06:38	05:23		04:32	05:44 (B4)	
	15:53		16:54		17:56	40	16:39 (B22)	20:01	21:04	21:58	18	06:02 (B4)
6	08:49		08:05		06:58	16:00 (B22)	06:35	05:21		04:31	05:45 (B4)	
	15:55		16:56		17:58	39	16:39 (B22)	20:03	21:06	21:59	16	06:01 (B4)
7	08:48		08:03		06:55	16:00 (B22)	06:33	05:19		04:30	05:45 (B4)	
	15:56		16:59		18:00	37	16:37 (B22)	20:05	21:08	3	05:53 (B4)	22:00
8	08:47		08:00		06:53	16:01 (B22)	06:30	05:17		05:46 (B4)	04:29	15
	15:58		17:01		18:03	35	16:36 (B22)	20:07	21:10	11	05:57 (B4)	22:01
9	08:47		07:58		06:50	16:02 (B22)	06:27	05:15		05:44 (B4)	04:28	14
	15:59		17:03		18:05	33	16:35 (B22)	20:10	21:12	15	05:59 (B4)	22:02
10	08:46		07:56		06:47	16:03 (B22)	06:25	05:13		05:42 (B4)	04:28	12
	16:01		17:05		18:07	30	16:33 (B22)	20:12	21:14	18	06:00 (B4)	22:03
11	08:45		07:54		06:45	16:05 (B22)	06:22	05:10		05:41 (B4)	04:27	11
	16:03		17:08		18:09	26	16:31 (B22)	20:14	21:16	20	06:01 (B4)	22:04
12	08:44		07:52		06:42	16:07 (B22)	06:20	05:08		05:39 (B4)	04:27	9
	16:04		17:10		18:11	22	16:29 (B22)	20:16	21:18	23	06:02 (B4)	22:05
13	08:43		07:49		06:39	16:10 (B22)	06:17	05:06		05:39 (B4)	04:26	8
	16:06		17:12		18:13	16	16:26 (B22)	20:18	21:20	23	06:02 (B4)	22:06
14	08:42		07:47		06:37	16:14	05:04	05:39 (B4)		04:26	05:58 (B4)	5
	16:08		17:14	6	16:24 (B22)	18:15	20:20	21:22	25	06:04 (B4)	22:07	1
15	08:41		07:45		06:34	16:12	05:02	05:38 (B4)		04:26	05:54 (B4)	
	16:10		17:17	16	16:29 (B22)	18:17	20:22	21:23	26	06:04 (B4)	22:07	
16	08:40		07:43		06:31	16:09	05:01	05:37 (B4)		04:25	05:53 (B4)	
	16:12	1	15:32 (B14)		17:19	22	16:32 (B22)	18:20	20:24	21:25	27	06:04 (B4)
17	08:39		07:40		06:29	16:08 (B22)	06:29	05:38 (B4)		04:25	05:52 (B4)	
	16:14	5	15:34 (B14)		17:21	26	16:34 (B22)	18:22	20:26	21:27	27	06:05 (B4)
18	08:37		07:38		06:26	16:06 (B22)	06:26	05:37 (B4)		04:25	05:51 (B4)	
	16:16	8	15:37 (B14)		17:23	29	16:35 (B22)	18:24	20:28	21:29	28	06:05 (B4)
19	08:36		07:35		06:23	16:05 (B22)	06:23	05:37 (B4)		04:25	05:50 (B4)	
	16:18	11	15:39 (B14)		17:25	32	16:37 (B22)	18:26	20:30	21:31	27	06:04 (B4)
20	08:35		07:33		06:21	16:03 (B22)	06:21	05:59		04:53	05:37 (B4)	
	16:20	14	15:42 (B14)		17:28	35	16:38 (B22)	18:28	20:32	21:33	28	06:05 (B4)
21	08:33		07:31		06:18	16:03 (B22)	06:18	05:57		04:52	05:37 (B4)	
	16:22	16	15:44 (B14)		17:30	36	16:39 (B22)	18:30	20:35	21:35	27	06:04 (B4)
22	08:32		07:28		06:15	16:01 (B22)	06:15	05:54		04:50	05:37 (B4)	
	16:24	18	15:46 (B14)		17:32	39	16:40 (B22)	18:32	20:37	21:36	28	06:05 (B4)
23	08:30		07:26		06:13	16:01 (B22)	06:13	05:52		04:48	05:37 (B4)	
	16:26	20	15:47 (B14)		17:34	40	16:41 (B22)	18:34	20:39	21:38	27	06:04 (B4)
24	08:29		07:23		06:10	16:00 (B22)	06:10	05:49		04:47	05:37 (B4)	
	16:28	21	15:48 (B14)		17:36	41	16:41 (B22)	18:36	20:41	21:40	27	06:04 (B4)
25	08:27		07:21		06:07	15:59 (B22)	06:07	05:47		04:45	05:38 (B4)	
	16:30	21	15:49 (B14)		17:39	42	16:41 (B22)	18:38	20:43	21:42	27	06:05 (B4)
26	08:25		07:18		06:05	15:59 (B22)	06:05	05:44		04:44	05:39 (B4)	
	16:32	21	15:49 (B14)		17:41	42	16:41 (B22)	18:40	20:45	21:43	26	06:05 (B4)
27	08:24		07:16		06:02	15:59 (B22)	06:02	05:42		04:42	05:38 (B4)	
	16:34	20	15:49 (B14)		17:43	42	16:41 (B22)	18:43	20:47	21:45	26	06:04 (B4)
28	08:22		07:13		05:59	15:59 (B22)	05:59	05:39		04:41	05:39 (B4)	
	16:36	20	15:49 (B14)		17:45	43	16:42 (B22)	18:45	20:49	21:46	25	06:04 (B4)
29	08:20				06:57		06:57	05:37		04:39	05:39 (B4)	
	16:39	19	15:49 (B14)		19:47		20:51	21:48		25	06:04 (B4)	
30	08:18				06:54		05:35	04:38		05:40 (B4)	04:29	5
	16:41	19	15:49 (B14)		19:49		20:53	21:50		23	06:03 (B4)	
31	08:17				06:51			04:37		05:41 (B4)	22:09	6
	16:43	18	15:48 (B14)		19:51			21:51		22	06:03 (B4)	
Potential sun hours	235		266		366		426	508		529		
Total, worst case	252		530		447			584		200		
Sun reduction	0.13		0.20		0.41			0.57		0.56		
Oper. time red.	0.98		0.98		0.98			0.98		0.98		
Wind dir. red.	0.65		0.67		0.67			0.67		0.67		
Total reduction	0.08		0.13		0.27			0.37		0.37		
Total, real	21		70		121			217		73		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (146)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July		August		September		October		November		December	
1	04:30	05:53 (B4)	05:16	05:50 (B4)	06:17	07:17	16:48 (B22)	07:22			08:24	
	22:09	9 06:02 (B4)	21:28	22 06:12 (B4)	20:14	18:54	19 17:07 (B22)	16:36			15:45	
2	04:31	05:53 (B4)	05:17	05:51 (B4)	06:19	07:19	16:45 (B22)	07:25			08:26	
	22:08	10 06:03 (B4)	21:26	20 06:11 (B4)	20:11	18:51	24 17:09 (B22)	16:34			15:44	
3	04:32	05:52 (B4)	05:19	05:53 (B4)	06:21	07:21	16:42 (B22)	07:27			08:27	
	22:08	12 06:04 (B4)	21:24	17 06:10 (B4)	20:09	18:48	29 17:11 (B22)	16:31			15:43	
4	04:33	05:52 (B4)	05:21	05:55 (B4)	06:23	07:23	16:40 (B22)	07:29			08:29	
	22:07	13 06:05 (B4)	21:22	14 06:09 (B4)	20:06	18:46	32 17:12 (B22)	16:29			15:42	
5	04:34	05:52 (B4)	05:23	05:56 (B4)	06:25	07:25	16:38 (B22)	07:31			08:31	
	22:07	14 06:06 (B4)	21:19	9 06:05 (B4)	20:03	18:43	35 17:13 (B22)	16:27			15:42	
6	04:35	05:51 (B4)	05:25		06:27	07:27	16:37 (B22)	07:33			08:32	
	22:06	16 06:07 (B4)	21:17		20:01	18:40	36 17:13 (B22)	16:25			15:41	
7	04:36	05:51 (B4)	05:27		06:29	07:29	16:35 (B22)	07:36			08:34	
	22:05	17 06:08 (B4)	21:15		19:58	18:38	39 17:14 (B22)	16:23			15:40	
8	04:37	05:50 (B4)	05:29		06:31	07:31	16:34 (B22)	07:38		15:06 (B14)	08:35	
	22:04	18 06:08 (B4)	21:13		19:55	18:35	40 17:14 (B22)	16:21	10	15:16 (B14)	15:40	
9	04:38	05:50 (B4)	05:31		06:33	07:34	16:33 (B22)	07:40		15:04 (B14)	08:36	
	22:03	19 06:09 (B4)	21:11		19:53	18:32	41 17:14 (B22)	16:19	13	15:17 (B14)	15:39	
10	04:39	05:49 (B4)	05:33		06:35	07:36	16:33 (B22)	07:42		15:02 (B14)	08:38	
	22:02	21 06:10 (B4)	21:08		19:50	18:30	42 17:15 (B22)	16:17	16	15:18 (B14)	15:39	
11	04:41	05:49 (B4)	05:35		06:37	07:38	16:33 (B22)	07:44		15:02 (B14)	08:39	
	22:01	21 06:10 (B4)	21:06		19:47	18:27	42 17:15 (B22)	16:15	18	15:20 (B14)	15:38	
12	04:42	05:49 (B4)	05:37		06:39	07:40	16:32 (B22)	07:46		15:01 (B14)	08:40	
	22:00	23 06:12 (B4)	21:04		19:45	18:25	43 17:15 (B22)	16:13	19	15:20 (B14)	15:38	
13	04:43	05:49 (B4)	05:39		06:41	07:42	16:31 (B22)	07:48		15:01 (B14)	08:41	
	21:59	23 06:12 (B4)	21:01		19:42	18:22	43 17:14 (B22)	16:11	20	15:21 (B14)	15:38	
14	04:45	05:48 (B4)	05:41		06:43	07:44	16:31 (B22)	07:51		15:01 (B14)	08:43	
	21:58	24 06:12 (B4)	20:59		19:39	18:19	43 17:14 (B22)	16:09	20	15:21 (B14)	15:38	
15	04:46	05:48 (B4)	05:43		06:45	07:46	16:32 (B22)	07:53		15:00 (B14)	08:44	
	21:56	24 06:12 (B4)	20:57		19:37	18:17	42 17:14 (B22)	16:07	21	15:21 (B14)	15:38	
16	04:48	05:48 (B4)	05:45		06:47	07:48	16:31 (B22)	07:55		15:01 (B14)	08:45	
	21:55	25 06:13 (B4)	20:54		19:34	18:14	42 17:13 (B22)	16:06	21	15:22 (B14)	15:38	
17	04:49	05:47 (B4)	05:47		06:49	07:50	16:31 (B22)	07:57		15:01 (B14)	08:45	
	21:54	26 06:13 (B4)	20:52		19:31	18:12	42 17:13 (B22)	16:04	21	15:22 (B14)	15:38	
18	04:51	05:48 (B4)	05:49		06:51	07:52	16:31 (B22)	07:59		15:01 (B14)	08:46	
	21:52	26 06:14 (B4)	20:49		19:28	18:09	41 17:12 (B22)	16:02	21	15:22 (B14)	15:38	
19	04:52	05:47 (B4)	05:51		06:53	07:54	16:32 (B22)	08:01		15:02 (B14)	08:47	
	21:51	27 06:14 (B4)	20:47		19:26	18:07	39 17:11 (B22)	16:01	20	15:22 (B14)	15:38	
20	04:54	05:48 (B4)	05:53		06:55	07:57	16:33 (B22)	08:03		15:03 (B14)	08:48	
	21:49	27 06:15 (B4)	20:45		19:23	18:04	37 17:10 (B22)	15:59	18	15:21 (B14)	15:39	
21	04:56	05:47 (B4)	05:55		06:57	07:59	16:33 (B22)	08:05		15:03 (B14)	08:48	
	21:48	28 06:15 (B4)	20:42		19:20	18:02	36 17:09 (B22)	15:58	16	15:19 (B14)	15:39	
22	04:57	05:48 (B4)	05:57		06:59	08:01	16:34 (B22)	08:07		15:04 (B14)	08:49	
	21:46	27 06:15 (B4)	20:40		19:18	17:59	34 17:08 (B22)	15:56	14	15:18 (B14)	15:39	
23	04:59	05:47 (B4)	05:59		07:01	08:03	16:36 (B22)	08:09		15:05 (B14)	08:49	
	21:44	28 06:15 (B4)	20:37		19:15	17:57	31 17:07 (B22)	15:55	11	15:16 (B14)	15:40	
24	05:01	05:47 (B4)	06:01		07:03	08:05	16:37 (B22)	08:11		15:06 (B14)	08:50	
	21:43	28 06:15 (B4)	20:35		19:12	17:55	28 17:05 (B22)	15:53	8	15:14 (B14)	15:40	
25	05:03	05:47 (B4)	06:03		07:05	07:07	15:38 (B22)	08:13		15:07 (B14)	08:50	
	21:41	27 06:14 (B4)	20:32		19:10	16:52	25 16:03 (B22)	15:52	5	15:12 (B14)	15:41	
26	05:04	05:48 (B4)	06:05		07:07	07:09	15:41 (B22)	08:15		15:09 (B14)	08:50	
	21:39	27 06:15 (B4)	20:29		19:07	16:50	20 16:01 (B22)	15:51	2	15:11 (B14)	15:42	
27	05:06	05:48 (B4)	06:07		07:09	07:12	15:43 (B22)	08:17			08:51	
	21:37	27 06:15 (B4)	20:27		19:04	16:47	15 15:58 (B22)	15:49			15:43	
28	05:08	05:48 (B4)	06:09		07:11	07:14		08:19			08:51	
	21:36	26 06:14 (B4)	20:24		19:02	16:45		15:48			15:44	
29	05:10	05:48 (B4)	06:11		07:13	07:16		08:21			08:51	
	21:34	26 06:14 (B4)	20:22		18:59	16:43		15:47			15:45	
30	05:12	05:49 (B4)	06:13		07:15	07:18		08:22			08:51	
	21:32	25 06:14 (B4)	20:19		18:56	16:40		15:46			15:46	
31	05:14	05:50 (B4)	06:15			07:20					08:51	
	21:30	23 06:13 (B4)	20:17			16:38					15:47	
Potential sun hours	529		469		385	324		247			216	
Total, worst case	687		82		12	940		294				
Sun reduction	0.49		0.50		0.43	0.26		0.08				
Oper. time red.	0.98		0.98		0.98	0.98		0.98				
Wind dir. red.	0.67		0.67		0.67	0.67		0.65				
Total reduction	0.32		0.33		0.28	0.17		0.05				
Total, real	222		27		3	160		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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upmalnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (209)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:50 15:48	08:14 16:45	07:10 17:47	16:22 (B3) 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44	
2	08:50 15:49	08:12 16:47	07:08 17:49	16:22 (B3) 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11	07:19 18:50	07:24 16:33	08:26 15:43	
3	08:50 15:50	08:10 16:49	07:05 17:51	16:22 (B3) 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43	
4	08:49 15:51	08:08 16:51	07:03 17:54	16:24 (B3) 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42	
5	08:49 15:53	08:06 16:54	07:00 17:56	16:24 (B3) 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	17:08 (B3) 17:19 (B3)	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	16:25 (B3) 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	17:05 (B3) 17:22 (B3)	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	16:27 (B3) 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	17:02 (B3) 17:23 (B3)	07:35 16:23	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	16:29 (B3) 20:07	05:16 21:09	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	17:00 (B3) 17:24 (B3)	07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	16:34 (B3) 20:09	05:14 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	16:58 (B3) 17:25 (B3)	07:40 16:18	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:06	16:37 (B3) 20:11	05:12 21:13	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	16:57 (B3) 17:25 (B3)	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	16:40 (B3) 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	16:56 (B3) 17:26 (B3)	07:44 16:14	08:39 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	16:43 (B3) 20:15	05:08 21:17	04:26 22:05	04:41 22:00	05:37 21:03	06:39 19:44	07:39 18:24	16:56 (B3) 17:27 (B3)	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	16:46 (B3) 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	16:55 (B3) 17:27 (B3)	07:48 16:11	08:41 15:37
14	08:42 16:08	07:47 17:14	06:36 18:15	16:48 (B3) 20:20	05:04 21:21	04:25 22:06	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	16:54 (B3) 17:26 (B3)	07:50 16:09	08:42 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	16:51 (B3) 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:16	16:54 (B3) 17:26 (B3)	07:52 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	16:37 (B3) 18:19	06:31 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	16:54 (B3) 17:25 (B3)	07:55 16:05	08:44 15:37
17	08:38 16:13	07:40 17:21	16:32 (B3) 18:21	06:28 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	16:54 (B3) 17:26 (B3)	07:57 16:04	08:45 15:37
18	08:37 16:15	07:38 17:23	16:29 (B3) 18:23	06:26 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	16:54 (B3) 17:25 (B3)	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	16:28 (B3) 18:25	06:23 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:25	07:54 18:06	16:54 (B3) 17:24 (B3)	08:01 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	16:26 (B3) 18:28	06:20 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	16:55 (B3) 17:23 (B3)	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	16:25 (B3) 18:30	06:18 20:34	04:51 21:34	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	16:56 (B3) 17:22 (B3)	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	16:24 (B3) 18:32	06:15 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	16:57 (B3) 17:21 (B3)	08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	16:23 (B3) 18:34	06:12 20:38	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	16:58 (B3) 17:19 (B3)	08:09 15:54	08:49 15:39
24	08:28 16:27	07:23 17:36	16:23 (B3) 18:36	06:10 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	17:00 (B3) 17:18 (B3)	08:11 15:53	08:50 15:40
25	08:27 16:29	07:20 17:38	16:22 (B3) 18:38	06:07 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	16:03 (B3) 16:14 (B3)	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:40	16:22 (B3) 18:40	06:04 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	16:14 (B3)	08:15 15:50	08:50 15:41
27	08:23 16:34	07:15 17:43	16:22 (B3) 18:42	06:02 20:47	04:41 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	16:15 (B3)	08:17 15:49	08:50 15:42
28	08:22 16:36	07:13 17:45	16:22 (B3) 18:44	05:59 20:49	04:40 21:46	04:27 22:10	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	16:16 (B3)	08:18 15:48	08:51 15:43
29	08:20 16:38	07:11 17:46	16:21 (B3) 18:46	05:56 20:51	04:39 21:48	04:28 22:09	05:09 21:33	06:11 20:21	07:13 18:59	07:16 16:42	16:17 (B3)	08:20 15:47	08:51 15:44
30	08:18 16:40	07:09 17:48	16:20 (B3) 18:48	05:54 20:53	04:38 21:49	04:29 22:09	05:11 21:31	06:13 20:19	07:15 18:56	07:18 16:40	16:18 (B3)	08:22 15:45	08:51 15:45
31	08:16 16:42	07:07 17:50	16:19 (B3) 18:50	05:51 20:50	04:36 21:51	04:28 22:10	05:13 21:30	06:15 20:16	07:20 16:38	17:20 16:38	16:19 (B3)	08:24 15:46	08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216	
Total, worst case		326	203							537			
Sun reduction		0.20	0.41							0.26			
Oper. time red.		0.98	0.98							0.98			
Wind dir. red.		0.67	0.67							0.67			
Total reduction		0.13	0.27							0.17			
Total, real		43	55							91			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (147)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January		February		March		April		May		June	
1	08:51	14:05 (B24)	08:15		07:11	16:17 (B22)	06:49		05:32		04:36	05:29 (B4)
	15:48	8 14:13 (B24)	16:45		17:47	37 16:54 (B22)	19:53		20:55		21:52	30 05:59 (B4)
2	08:50	14:06 (B24)	08:13		07:08	16:17 (B22)	06:46		05:30		04:35	05:29 (B4)
	15:49	6 14:12 (B24)	16:47		17:50	37 16:54 (B22)	19:55		20:57		21:54	31 06:00 (B4)
3	08:50		08:11		07:06	16:17 (B22)	06:43		05:28		04:34	05:29 (B4)
	15:51		16:50		17:52	37 16:54 (B22)	19:57		20:59		21:55	30 05:59 (B4)
4	08:50		08:09		07:03	16:17 (B22)	06:41	07:06 (B15)	05:26		04:33	05:29 (B4)
	15:52		16:52		17:54	37 16:54 (B22)	19:59	4 07:10 (B15)	21:01		21:56	30 05:59 (B4)
5	08:49		08:07		07:00	16:17 (B22)	06:38	07:03 (B15)	05:23		04:32	05:30 (B4)
	15:53		16:54		17:56	36 16:53 (B22)	20:01	9 07:12 (B15)	21:04		21:58	30 06:00 (B4)
6	08:49		08:05		06:58	07:24 (B18)	06:35	07:01 (B15)	05:21		04:31	05:30 (B4)
	15:55		16:56		17:58	38 16:53 (B22)	20:03	13 07:14 (B15)	21:06		21:59	30 06:00 (B4)
7	08:48		08:03		06:55	07:21 (B18)	06:33	06:58 (B15)	05:19		04:30	05:30 (B4)
	15:56		16:59		18:00	42 16:52 (B22)	20:05	16 07:14 (B15)	21:08		22:00	30 06:00 (B4)
8	08:47		08:00		06:53	07:18 (B18)	06:30	06:55 (B15)	05:17		04:29	05:31 (B4)
	15:58		17:01		18:03	44 16:50 (B22)	20:07	19 07:14 (B15)	21:10		22:01	29 06:00 (B4)
9	08:47		07:58		06:50	07:16 (B18)	06:27	06:54 (B15)	05:15		04:28	05:30 (B4)
	15:59		17:03		18:05	47 16:50 (B22)	20:10	21 07:15 (B15)	21:12		22:02	30 06:00 (B4)
10	08:46		07:56		06:47	07:13 (B18)	06:25	06:53 (B15)	05:13		04:28	05:31 (B4)
	16:01		17:05		18:07	47 16:48 (B22)	20:12	21 07:14 (B15)	21:14		22:03	30 06:01 (B4)
11	08:45		07:54		06:45	07:11 (B18)	06:22	06:54 (B15)	05:10		04:27	05:31 (B4)
	16:03		17:08		18:09	46 16:46 (B22)	20:14	20 07:14 (B15)	21:16		22:04	29 06:00 (B4)
12	08:44		07:52		06:42	07:12 (B18)	06:20	06:53 (B15)	05:08		04:27	05:31 (B4)
	16:04		17:10		18:11	41 16:45 (B22)	20:16	20 07:13 (B15)	21:18		22:05	29 06:00 (B4)
13	08:43		07:49		06:39	07:11 (B18)	06:17	06:54 (B15)	05:06	05:40 (B4)	04:26	05:32 (B4)
	16:06		17:12		18:13	36 16:41 (B22)	20:18	19 07:13 (B15)	21:20	5 05:45 (B4)	22:06	29 06:01 (B4)
14	08:42		07:47		06:37	07:11 (B18)	06:14	06:54 (B15)	05:04	05:37 (B4)	04:26	05:32 (B4)
	16:08		17:14		18:15	23 16:35 (B22)	20:20	17 07:11 (B15)	21:22	12 05:49 (B4)	22:07	28 06:00 (B4)
15	08:41		07:45		06:34	07:11 (B18)	06:12	06:55 (B15)	05:02	05:35 (B4)	04:26	05:32 (B4)
	16:10		17:16		18:17	18 07:29 (B18)	20:22	15 07:10 (B15)	21:23	16 05:51 (B4)	22:07	29 06:01 (B4)
16	08:40		07:42		06:31	07:13 (B18)	06:09	06:56 (B15)	05:01	05:33 (B4)	04:25	05:32 (B4)
	16:12		17:19		18:20	16 07:29 (B18)	20:24	12 07:08 (B15)	21:25	19 05:52 (B4)	22:08	29 06:01 (B4)
17	08:39		07:40		06:29	07:14 (B18)	06:07	07:00 (B15)	04:59	05:33 (B4)	04:25	05:33 (B4)
	16:14		17:21		18:22	13 07:27 (B18)	20:26	5 07:05 (B15)	21:27	21 05:54 (B4)	22:08	28 06:01 (B4)
18	08:37		07:38	16:34 (B22)	06:26	07:16 (B18)	06:04	04:57	05:31 (B4)	04:25	05:33 (B4)	
	16:16		17:23	5 16:39 (B22)	18:24	7 07:23 (B18)	20:28	21:29	23 05:54 (B4)	22:09	28 06:01 (B4)	
19	08:36		07:35	16:29 (B22)	06:23		06:02	04:55	05:30 (B4)	04:25	05:33 (B4)	
	16:18		17:25	16 16:45 (B22)	18:26		20:30	21:31	25 05:55 (B4)	22:09	28 06:01 (B4)	
20	08:35		07:33	16:26 (B22)	06:21		05:59	04:53	05:30 (B4)	04:25	05:33 (B4)	
	16:20		17:28	21 16:47 (B22)	18:28		20:32	21:33	26 05:56 (B4)	22:10	28 06:01 (B4)	
21	08:33		07:31	16:25 (B22)	06:18		05:57	04:52	05:29 (B4)	04:25	05:34 (B4)	
	16:22		17:30	24 16:49 (B22)	18:30		20:35	21:35	27 05:56 (B4)	22:10	28 06:02 (B4)	
22	08:32		07:28	16:23 (B22)	06:15		05:54	04:50	05:29 (B4)	04:25	05:34 (B4)	
	16:24		17:32	27 16:50 (B22)	18:32		20:37	21:36	28 05:57 (B4)	22:10	28 06:02 (B4)	
23	08:30		07:26	16:22 (B22)	06:13		05:52	04:48	05:28 (B4)	04:26	05:34 (B4)	
	16:26		17:34	30 16:52 (B22)	18:34		20:39	21:38	29 05:57 (B4)	22:10	28 06:02 (B4)	
24	08:29		07:23	16:21 (B22)	06:10		05:49	04:47	05:28 (B4)	04:26	05:34 (B4)	
	16:28		17:36	31 16:52 (B22)	18:36		20:41	21:40	30 05:58 (B4)	22:10	28 06:02 (B4)	
25	08:27		07:21	16:19 (B22)	06:07		05:47	04:45	05:29 (B4)	04:26	05:35 (B4)	
	16:30		17:39	34 16:53 (B22)	18:38		20:43	21:42	29 05:58 (B4)	22:10	28 06:03 (B4)	
26	08:25		07:18	16:19 (B22)	06:05		05:44	04:44	05:29 (B4)	04:27	05:35 (B4)	
	16:32		17:41	35 16:54 (B22)	18:40		20:45	21:43	30 05:59 (B4)	22:10	28 06:03 (B4)	
27	08:24		07:16	16:18 (B22)	06:02		05:42	04:42	05:28 (B4)	04:27	05:35 (B4)	
	16:34		17:43	36 16:54 (B22)	18:43		20:47	21:45	30 05:58 (B4)	22:10	29 06:04 (B4)	
28	08:22		07:13	16:18 (B22)	05:59		05:39	04:41	05:28 (B4)	04:28	05:35 (B4)	
	16:36		17:45	37 16:55 (B22)	18:45		20:49	21:46	31 05:59 (B4)	22:10	28 06:03 (B4)	
29	08:20				06:57		05:37	04:39	05:28 (B4)	04:28	05:35 (B4)	
	16:39				19:47		20:51	21:48	31 05:59 (B4)	22:10	29 06:04 (B4)	
30	08:18				06:54		05:35	04:38	05:28 (B4)	04:29	05:36 (B4)	
	16:41				19:49		20:53	21:50	31 05:59 (B4)	22:09	29 06:05 (B4)	
31	08:17				06:51			04:37	05:29 (B4)			
	16:43				19:51			21:51	30 05:59 (B4)			
Potential sun hours	235		266		366		426		508		529	
Total, worst case	14		296		602		211		473		868	
Sun reduction	0.13		0.20		0.41		0.50		0.57		0.56	
Oper. time red.	0.98		0.98		0.98		0.98		0.98		0.98	
Wind dir. red.	0.66		0.67		0.66		0.66		0.67		0.67	
Total reduction	0.09		0.13		0.26		0.32		0.37		0.37	
Total, real	1		39		158		68		176		318	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (147)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July			August			September			October			November			December		
1	04:30	05:35 (B4)	05:16	06:17	06:53 (B15)	07:17	07:51 (B18)	07:22	08:24									
	22:09	29 06:04 (B4)	21:28	20:14	20 07:13 (B15)	18:54	39 17:23 (B22)	16:36	15:45									
2	04:31	05:35 (B4)	05:17	06:19	06:52 (B15)	07:19	07:50 (B18)	07:25	08:26									
	22:08	30 06:05 (B4)	21:26	20:11	21 07:13 (B15)	18:51	44 17:24 (B22)	16:34	15:44									
3	04:32	05:36 (B4)	05:19	06:21	06:52 (B15)	07:21	07:50 (B18)	07:27	08:27									
	22:08	29 06:05 (B4)	21:24	20:09	21 07:13 (B15)	18:48	47 17:26 (B22)	16:31	15:43									
4	04:33	05:36 (B4)	05:21	06:23	06:53 (B15)	07:23	07:52 (B18)	07:29	08:29									
	22:07	30 06:06 (B4)	21:22	20:06	19 07:12 (B15)	18:46	47 17:27 (B22)	16:29	15:42									
5	04:34	05:36 (B4)	05:23	06:25	06:54 (B15)	07:25	07:54 (B18)	07:31	08:31									
	22:07	30 06:06 (B4)	21:19	20:03	16 07:10 (B15)	18:43	45 17:27 (B22)	16:27	15:42									
6	04:35	05:36 (B4)	05:25	06:27	06:56 (B15)	07:27	07:56 (B18)	07:33	08:32									
	22:06	30 06:06 (B4)	21:17	20:01	13 07:09 (B15)	18:40	44 17:28 (B22)	16:25	15:41									
7	04:36	05:36 (B4)	05:27	06:29	06:58 (B15)	07:29	07:58 (B18)	07:36	08:34									
	22:05	31 06:07 (B4)	21:15	19:58	9 07:07 (B15)	18:38	41 17:28 (B22)	16:23	15:40									
8	04:37	05:36 (B4)	05:29	06:31	07:00 (B15)	07:31	16:52 (B22)	07:38	08:35									
	22:04	31 06:07 (B4)	21:13	19:55	5 07:05 (B15)	18:35	36 17:28 (B22)	16:21	15:40									
9	04:38	05:36 (B4)	05:31	06:33		07:34	16:51 (B22)	07:40	08:36									
	22:03	31 06:07 (B4)	21:11	19:53		18:32	37 17:28 (B22)	16:19	15:39									
10	04:39	05:36 (B4)	05:33	06:35		07:36	16:52 (B22)	07:42	08:38								13:56 (B24)	
	22:02	31 06:07 (B4)	21:08	19:50		18:30	37 17:29 (B22)	16:17	15:39				6	14:02 (B24)				
11	04:41	05:36 (B4)	05:35	06:37		07:38	16:51 (B22)	07:44	08:39								13:55 (B24)	
	22:01	31 06:07 (B4)	21:06	19:47		18:27	37 17:28 (B22)	16:15	15:38				8	14:03 (B24)				
12	04:42	05:37 (B4)	05:37	06:39		07:40	16:51 (B22)	07:46	08:40								13:55 (B24)	
	22:00	31 06:08 (B4)	21:04	19:45		18:25	37 17:28 (B22)	16:13	15:38				9	14:04 (B24)				
13	04:43	05:37 (B4)	05:39	06:41		07:42	16:50 (B22)	07:48	08:41								13:55 (B24)	
	21:59	31 06:08 (B4)	21:01	19:42		18:22	37 17:27 (B22)	16:11	15:38				11	14:06 (B24)				
14	04:45	05:37 (B4)	05:41	06:43		07:44	16:50 (B22)	07:51	08:43								13:55 (B24)	
	21:58	31 06:08 (B4)	20:59	19:39		18:19	37 17:27 (B22)	16:09	15:38				12	14:07 (B24)				
15	04:46	05:37 (B4)	05:43	06:45		07:46	16:51 (B22)	07:53	08:44								13:55 (B24)	
	21:56	30 06:07 (B4)	20:57	19:37		18:17	36 17:27 (B22)	16:07	15:38				12	14:07 (B24)				
16	04:48	05:37 (B4)	05:45	06:47		07:48	16:51 (B22)	07:55	08:45								13:55 (B24)	
	21:55	31 06:08 (B4)	20:54	19:34		18:14	35 17:26 (B22)	16:06	15:38				13	14:08 (B24)				
17	04:49	05:37 (B4)	05:47	06:49		07:50	16:52 (B22)	07:57	08:45								13:55 (B24)	
	21:54	31 06:08 (B4)	20:52	19:31		18:12	33 17:25 (B22)	16:04	15:38				14	14:09 (B24)				
18	04:51	05:38 (B4)	05:49	06:51		07:52	16:52 (B22)	07:59	08:46								13:56 (B24)	
	21:52	30 06:08 (B4)	20:49	19:28		18:09	31 17:23 (B22)	16:02	15:38				14	14:10 (B24)				
19	04:52	05:38 (B4)	05:51	06:53		07:54	16:53 (B22)	08:01	08:47								13:55 (B24)	
	21:51	29 06:07 (B4)	20:47	19:26		18:07	29 17:22 (B22)	16:01	15:38				15	14:10 (B24)				
20	04:54	05:39 (B4)	05:53	06:55		07:57	16:54 (B22)	08:03	08:48								13:56 (B24)	
	21:49	29 06:08 (B4)	20:45	19:23		18:04	27 17:21 (B22)	15:59	15:38				15	14:11 (B24)				
21	04:56	05:39 (B4)	05:55	06:57		07:59	16:56 (B22)	08:05	08:48								13:57 (B24)	
	21:48	28 06:07 (B4)	20:42	19:20		18:02	23 17:19 (B22)	15:58	15:39				15	14:12 (B24)				
22	04:57	05:40 (B4)	05:57	06:59		08:01	16:57 (B22)	08:07	08:49								13:57 (B24)	
	21:46	27 06:07 (B4)	20:40	19:18		17:59	19 17:16 (B22)	15:56	15:39				15	14:12 (B24)				
23	04:59	05:40 (B4)	05:59	07:01		08:03	17:01 (B22)	08:09	08:49								13:57 (B24)	
	21:44	26 06:06 (B4)	20:37	19:15		17:57	13 17:14 (B22)	15:55	15:40				15	14:12 (B24)				
24	05:01	05:41 (B4)	06:01	07:03		08:05		08:11	08:50								13:58 (B24)	
	21:43	25 06:06 (B4)	20:35	19:12		17:55		15:53	15:40				15	14:13 (B24)				
25	05:03	05:41 (B4)	06:03	07:05		07:07		08:13	08:50								13:59 (B24)	
	21:41	24 06:05 (B4)	20:32	19:10	4	08:04 (B18)	16:52	15:52	15:41				14	14:13 (B24)				
26	05:04	05:42 (B4)	06:05	07:07 (B15)		07:09		08:15	08:50								13:59 (B24)	
	21:39	22 06:04 (B4)	20:29	6 07:07 (B15)		19:07	12 08:08 (B18)	16:50	15:51				14	14:13 (B24)				
27	05:06	05:43 (B4)	06:07	06:58 (B15)		07:09		07:54 (B18)	07:12								14:00 (B24)	
	21:37	21 06:04 (B4)	20:27	12 07:10 (B15)		19:04	15 08:09 (B18)	16:47	15:49				13	14:13 (B24)				
28	05:08	05:44 (B4)	06:09	06:56 (B15)		07:11		07:53 (B18)	07:14								14:01 (B24)	
	21:36	18 06:02 (B4)	20:24	15 07:11 (B15)		19:02	18 08:11 (B18)	16:45	15:48				12	14:13 (B24)				
29	05:10	05:46 (B4)	06:11	06:55 (B15)		07:13		07:52 (B18)	07:16								14:02 (B24)	
	21:34	14 06:00 (B4)	20:22	17 07:12 (B15)		18:59	19 08:11 (B18)	16:43	15:47				12	14:14 (B24)				
30	05:12	05:49 (B4)	06:13	06:54 (B15)		07:15		07:51 (B18)	07:18								14:03 (B24)	
	21:32	9 05:58 (B4)	20:19	19 07:13 (B15)		18:56	32 17:20 (B22)	16:40	15:46				11	14:14 (B24)				
31	05:14		06:15	06:53 (B15)				07:20									14:03 (B24)	
	21:30		20 07:13 (B15)					16:38									14:13 (B24)	
Potential sun hours	529		469	385				324					247		216			
Total, worst case		820		89		224		811							275			
Sun reduction		0.49		0.50		0.43		0.26							0.07			
Oper. time red.		0.98		0.98		0.98		0.98							0.98			
Wind dir. red.		0.67		0.66		0.64		0.66							0.66			
Total reduction		0.32		0.32		0.27		0.17							0.05			
Total, real		265		29		60		136							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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Upiš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (210)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
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9	08:46 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:19	08:36 15:39
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Urbani 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (108)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:49	08:15 16:46	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:27 15:44
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:56	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Urgas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (55)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
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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	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Uzkalnini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (211)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:47	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11	07:19 18:50	07:24 16:33	08:26 15:43
3	08:50 15:50	08:10 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:42
4	08:49 15:51	08:08 16:51	07:03 17:53	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:42	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:22	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:09	04:28 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:37 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	06:24 20:11	05:12 21:13	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	08:39 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	06:19 20:15	05:08 21:17	04:26 22:05	04:41 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:12	08:40 15:37
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:41 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:25 22:06	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:37
15	08:41 16:09	07:44 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:16	07:52 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:33	07:48 18:14	07:55 16:05	08:44 15:37
17	08:38 16:13	07:40 17:20	06:28 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:03	08:45 15:37
18	08:37 16:15	07:37 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:24 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:25	06:01 20:30	04:54 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:25	07:54 18:06	08:01 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	06:20 18:28	05:59 20:32	04:53 21:33	04:24 22:09	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:00 17:59	08:07 15:55	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:25 22:10	04:58 21:44	05:59 20:37	07:01 19:15	08:03 17:56	08:09 15:54	08:49 15:39
24	08:28 16:27	07:23 17:36	06:10 18:36	05:49 20:40	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:20 17:38	06:07 18:38	05:46 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:31	07:18 17:40	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:06	07:09 16:49	08:15 15:50	08:50 15:41
27	08:23 16:34	07:15 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:50 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:07 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:09 21:33	06:11 20:21	07:13 18:58	07:16 16:42	08:20 15:46	08:51 15:44
30	08:18 16:40		06:54 19:48	05:34 20:53	04:38 21:49	04:28 22:09	05:11 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:50		04:36 21:51		05:13 21:29	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vaivarini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (171)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	05:15 (B14) 04:30 21:52	05:23 (B14) 05:16 21:28	05:16 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	04:35 21:54	05:16 (B14) 04:31 21:54	05:22 (B14) 05:18 21:26	05:18 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	04:34 21:55	05:17 (B14) 04:32 21:55	05:23 (B14) 05:20 21:24	05:20 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	04:33 21:57	05:17 (B14) 04:33 21:57	05:23 (B14) 05:22 21:22	05:22 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	04:32 21:58	05:17 (B14) 04:34 21:58	05:23 (B14) 05:24 21:19	05:24 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	04:31 21:59	05:17 (B14) 04:35 21:59	05:23 (B14) 05:26 21:17	05:26 20:01	06:27 18:40	07:28 16:25	07:33 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	05:18 (B14) 04:36 22:00	05:23 (B14) 05:27 21:15	05:27 20:09	06:29 18:38	07:30 16:23	07:36 15:41
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	05:17 (B14) 04:37 22:01	05:23 (B14) 05:29 21:13	05:29 20:03	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	04:29 22:02	05:18 (B14) 04:38 22:02	05:23 (B14) 05:31 21:11	05:31 20:03	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	04:28 22:03	05:18 (B14) 04:40 22:03	05:23 (B14) 05:33 21:08	05:33 20:03	06:35 18:30	07:36 16:17	07:42 15:39
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 22:03	05:24 (B14) 05:35 21:08	05:35 20:03	06:37 18:27	07:38 16:17	07:44 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	05:18 (B14) 04:42 22:05	05:24 (B14) 05:37 21:04	05:37 20:03	06:39 18:25	07:40 16:13	07:46 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	05:19 (B14) 04:44 22:06	05:24 (B14) 05:39 21:02	05:39 20:03	06:41 18:22	07:42 16:11	07:49 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	05:20 (B14) 04:45 22:07	05:24 (B14) 05:41 21:02	05:41 20:03	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	04:26 22:07	05:20 (B14) 04:47 22:07	05:25 (B14) 05:43 21:02	05:43 20:03	06:45 18:17	07:46 16:08	07:53 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	05:21 (B14) 04:48 22:08	05:25 (B14) 05:45 21:02	05:45 20:03	06:47 18:15	07:48 16:06	07:55 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	05:20 (B14) 04:50 22:08	05:26 (B14) 05:47 21:02	05:47 20:03	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	05:28 (B14) 05:29 (B14) 22:09	05:27 (B14) 05:49 21:02	05:49 20:03	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	05:21 (B14) 04:53 22:09	05:28 (B14) 05:51 21:02	05:51 20:03	06:53 18:07	07:55 16:01	08:01 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	05:21 (B14) 04:54 22:10	05:30 (B14) 05:53 21:02	05:53 20:03	06:55 18:05	07:57 16:00	08:03 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	05:22 (B14) 04:56 22:10	05:31 (B14) 05:55 21:02	05:55 20:03	06:57 18:02	07:59 16:00	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	04:26 22:10	05:22 (B14) 04:58 22:10	05:33 (B14) 05:57 21:02	05:57 20:03	06:59 18:00	08:01 15:56	08:07 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:21 (B14) 04:59 22:10	05:35 (B14) 05:59 21:02	05:59 20:03	07:01 17:57	08:03 16:00	08:09 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:22 (B14) 05:01 22:10	05:36 (B14) 06:01 21:02	06:01 20:03	07:03 17:55	08:05 16:00	08:11 15:40
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:18 (B14) 05:36 (B14) 22:10	05:38 (B14) 06:03 21:02	06:03 20:03	07:05 17:52	08:07 16:00	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	05:17 (B14) 05:37 (B14) 22:10	05:39 (B14) 06:04 21:02	06:04 20:03	07:07 17:50	08:10 16:00	08:15 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:16 (B14) 05:38 (B14) 22:10	05:40 (B14) 06:05 21:02	06:05 20:03	07:09 17:48	08:12 16:00	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	05:15 (B14) 05:37 (B14) 22:10	05:41 (B14) 06:06 21:02	06:06 20:03	07:11 17:45	08:14 16:00	08:19 15:44
29	08:20 16:39	07:10 17:47	05:57 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:15 (B14) 05:37 (B14) 22:10	05:42 (B14) 06:07 21:02	06:07 20:03	07:13 17:43	08:16 16:00	08:21 15:45
30	08:18 16:41	07:06 17:49	05:54 18:49	05:35 20:53	04:39 21:50	04:30 22:09	05:15 (B14) 05:38 (B14) 22:09	05:43 (B14) 06:08 21:02	06:08 20:03	07:15 17:41	08:18 16:00	08:22 15:46
31	08:17 16:43	07:04 17:51	05:52 18:51	05:33 20:55	04:37 21:51	04:37 21:51	05:15 (B14) 05:38 (B14) 21:51	05:44 (B14) 06:09 21:02	06:09 20:03	07:17 17:38	08:20 16:00	08:25 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case					218	611	465					
Sun reduction					0.57	0.56	0.49					
Oper. time red.					0.98	0.98	0.98					
Wind dir. red.					0.67	0.67	0.67					
Total reduction					0.37	0.37	0.32					
Total, real					81	224	151					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vecleiš upi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (181)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vecumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (18)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:48 19:53	05:32 20:55	04:35 21:53	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:57	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:19 21:08	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:33 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:17	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:42 15:37
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:25 22:07	04:46 21:57	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:04	08:46 15:37
18	08:37 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:51 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:47	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:47	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:43		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vecveveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	06:39 (B14) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	06:40 (B14) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	06:40 (B14) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:41 (B14) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	06:43 (B14) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:44 (B14) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:46 (B14) 22:00
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:48 (B14) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:49 (B14) 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	06:49 (B14) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:55 (B14) 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:51 (B14) 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:49 (B14) 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:46 (B14) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:45 (B14) 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:43 (B14) 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:42 (B14) 22:08
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:41 (B14) 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	06:40 (B14) 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	05:27 (B22) 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	05:28 (B22) 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	05:29 (B22) 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	05:30 (B22) 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	05:32 (B22) 22:10
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	05:31 (B22) 22:10
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	05:18 (B22) 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	05:33 (B22) 22:10
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	05:34 (B22) 22:10
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	05:16 (B22) 22:10
30	08:18 16:41	07:09 17:49	05:54 18:49	05:35 20:53	04:38 21:50	05:33 (B22) 22:09
31	08:17 16:43	07:08 17:51	05:51 18:51	05:32 20:54	04:37 21:51	05:34 (B22) 22:09
Potential sun hours	235	266	366	426	508	528
Total, worst case			225	641	370	556
Sun reduction			0.41	0.50	0.57	0.56
Oper. time red.			0.98	0.98	0.98	0.98
Wind dir. red.			0.65	0.66	0.66	0.67
Total reduction			0.26	0.32	0.37	0.37
Total, real			58	206	136	204

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vecveveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09 18	05:21 (B22) 05:39 (B22) 21:28	05:16 21:28	06:17 20:14	06:54 (B14) 07:04 (B14)	07:17 18:54 16:36 15:45
2	04:31 22:08 19	05:20 (B22) 05:39 (B22) 21:26	05:18 21:26	06:19 20:11	07:19 18:51 16:34 15:44	08:26 16:34 15:44
3	04:32 22:08 19	05:20 (B22) 05:39 (B22) 21:24	05:20 21:24	06:21 20:09	07:21 18:48 16:32 15:43	08:28 16:32 15:43
4	04:33 22:07 20	05:20 (B22) 05:40 (B22) 21:22	05:22 21:22	07:01 (B14) 07:08 (B14) 20:06	06:23 20:06	07:23 18:46 16:30 15:43
5	04:34 22:07 20	05:20 (B22) 05:40 (B22) 21:19	05:24 21:19	06:58 (B14) 07:12 (B14) 20:03	06:25 20:03	07:25 18:43 16:27 15:42
6	04:35 22:06 21	05:20 (B22) 05:41 (B22) 21:17	05:25 21:17	06:55 (B14) 07:14 (B14) 20:01	06:27 20:01	07:28 18:40 16:25 15:41
7	04:36 22:05 21	05:20 (B22) 05:41 (B22) 21:15	05:27 21:15	06:53 (B14) 07:15 (B14) 19:58	06:29 19:58	07:30 18:38 16:23 15:40
8	04:37 22:04 21	05:20 (B22) 05:41 (B22) 21:13	05:29 21:13	06:52 (B14) 07:17 (B14) 19:56	06:31 19:56	07:32 18:35 16:21 15:40
9	04:38 22:03 21	05:20 (B22) 05:41 (B22) 21:11	05:31 21:11	06:51 (B14) 07:18 (B14) 19:53	06:33 19:53	07:34 18:33 16:19 15:39
10	04:40 22:02 21	05:20 (B22) 05:41 (B22) 21:08	05:33 21:08	06:50 (B14) 07:19 (B14) 19:50	06:35 19:50	07:36 18:30 16:17 15:39
11	04:41 22:01 21	05:21 (B22) 05:42 (B22) 21:06	05:35 21:06	06:49 (B14) 07:20 (B14) 19:47	06:37 19:47	07:38 18:27 16:15 15:39
12	04:42 22:00 21	05:21 (B22) 05:42 (B22) 21:04	05:37 21:04	06:47 (B14) 07:20 (B14) 19:45	06:39 19:45	07:40 18:25 16:13 15:38
13	04:44 21:59 21	05:21 (B22) 05:42 (B22) 21:02	05:39 21:02	06:46 (B14) 07:21 (B14) 19:42	06:41 19:42	07:42 18:22 16:11 15:38
14	04:45 21:58 21	05:21 (B22) 05:42 (B22) 20:59	05:41 20:59	06:46 (B14) 07:21 (B14) 19:39	06:43 19:39	07:44 18:20 16:10 15:38
15	04:46 21:57 20	05:23 (B22) 05:43 (B22) 20:57	05:43 20:57	06:45 (B14) 07:22 (B14) 19:37	06:45 19:37	07:46 18:17 16:08 15:38
16	04:48 21:55 18	05:24 (B22) 05:42 (B22) 20:54	05:45 20:54	06:45 (B14) 07:22 (B14) 19:34	06:47 19:34	07:48 18:15 16:06 15:38
17	04:49 21:54 17	05:25 (B22) 05:42 (B22) 20:52	05:47 20:52	06:45 (B14) 07:22 (B14) 19:31	06:49 19:31	07:50 18:12 16:04 15:38
18	04:51 21:52 15	05:27 (B22) 05:42 (B22) 20:50	05:49 20:50	06:45 (B14) 07:22 (B14) 19:29	06:51 19:29	07:52 18:09 16:03 15:38
19	04:53 21:51 13	05:28 (B22) 05:41 (B22) 20:47	05:51 20:47	06:43 (B14) 07:21 (B14) 19:26	06:53 19:26	07:55 18:07 16:01 15:38
20	04:54 21:49 12	05:30 (B22) 05:42 (B22) 20:45	05:53 20:45	06:43 (B14) 07:21 (B14) 19:23	06:55 19:23	07:57 18:04 15:59 15:39
21	04:56 21:48 10	05:31 (B22) 05:41 (B22) 20:42	05:55 20:42	06:43 (B14) 07:21 (B14) 19:21	06:57 19:21	07:59 18:02 15:58 15:39
22	04:58 21:46 7	05:33 (B22) 05:40 (B22) 20:40	05:57 20:40	06:43 (B14) 07:21 (B14) 19:18	06:59 19:18	08:01 18:00 15:56 15:40
23	04:59 21:45 5	05:34 (B22) 05:39 (B22) 20:37	05:59 20:37	06:44 (B14) 07:20 (B14) 19:15	07:01 19:15	08:03 17:57 15:55 15:40
24	05:01 21:43 2	05:36 (B22) 05:38 (B22) 20:35	06:01 20:35	06:44 (B14) 07:19 (B14) 19:12	07:03 19:12	08:05 17:55 15:53 15:41
25	05:03 21:41 0	06:03 20:32	06:03 20:32	06:44 (B14) 07:19 (B14) 19:10	07:05 19:10	08:13 16:52 15:52 15:41
26	05:05 21:39 0	06:05 20:30	06:05 20:30	06:45 (B14) 07:18 (B14) 19:07	07:07 19:07	08:15 16:50 15:51 15:42
27	05:06 21:38 0	06:07 20:27	06:07 20:27	06:46 (B14) 07:17 (B14) 19:04	07:09 19:04	08:17 16:48 15:50 15:43
28	05:08 21:36 0	06:09 20:24	06:09 20:24	06:46 (B14) 07:14 (B14) 19:02	07:11 19:02	08:19 16:45 15:48 15:44
29	05:10 21:34 0	06:11 20:22	06:11 20:22	06:47 (B14) 07:13 (B14) 18:59	07:13 18:59	08:21 16:43 15:47 15:45
30	05:12 21:32 0	06:13 20:19	06:13 20:19	06:49 (B14) 07:11 (B14) 18:56	07:15 18:56	08:22 16:41 15:46 15:46
31	05:14 21:30 0	06:15 20:17	06:15 20:17	06:51 (B14) 07:08 (B14)	07:17 18:56	08:24 16:38 15:47 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	404	840	235			
Sun reduction	0.49	0.50	0.43			
Oper. time red.	0.98	0.98	0.98			
Wind dir. red.	0.67	0.66	0.65			
Total reduction	0.32	0.32	0.27			
Total, real	131	269	63			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Viduslejas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (5)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	08:50 (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 (B22) 15:45
2	08:51 15:49	08:13 16:47	08:50 (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	08:23 (B22) 15:44
3	08:50 15:51	08:11 16:50	08:50 (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	08:23 (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	04:33 21:22	05:21 20:06	06:23 18:46	07:23 16:29	08:23 (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	04:34 22:07	05:23 21:20	06:25 18:43	07:25 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	04:35 21:17	05:25 20:01	06:27 18:40	07:28 16:25	08:22 (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	04:36 21:15	05:27 19:58	06:29 18:38	07:30 16:23	08:20 (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 19:56	07:32 18:35	07:38 16:21	08:21 (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 19:53	07:34 18:32	07:40 16:19	08:21 (B22) 15:39
10	08:46 16:01	07:56 17:05	08:55 (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	08:22 (B22) 15:39
11	08:45 16:03	07:54 17:08	08:58 (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	08:22 (B22) 15:38
12	08:44 16:05	07:52 17:10	09:08 (B22) 18:09	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	08:22 (B22) 15:38
13	08:43 16:06	07:50 17:12		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	08:24 (B22) 15:38
14	08:42 16:08	07:47 17:14		06:37 20:20	06:15 21:22	05:05 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:26 (B22) 15:38
15	08:41 16:10	07:45 17:17		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	08:29 (B22) 15:38
16	08:40 16:12	07:43 17:19		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	08:31 (B22) 15:38
17	08:39 16:14	07:40 17:21		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	08:33 (B22) 15:38
18	08:38 16:16	07:38 17:23		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	08:39 (B22) 15:38
19	08:36 16:18	07:36 17:26		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	08:42 (B22) 15:38
20	08:35 16:20	07:33 17:28		06:21 20:33	05:59 21:33	04:53 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30		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	08:49 15:39
22	08:32 16:24	07:28 17:32		06:16 20:37	05:54 21:37	04:50 22:10	04:55 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		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	09:02 (B22)	06:10 20:41	05:49 21:40	04:47 22:10	04:26 21:43	05:01 20:35	06:01 19:12	07:03 17:55	08:05 15:53	08:11 15:41
25	08:27 16:30	07:21 17:39	09:00 (B22)	06:08 20:43	05:47 21:42	04:45 22:10	04:26 21:41	05:03 20:32	06:03 19:10	07:05 17:52	08:07 15:52	08:13 15:41
26	08:26 16:32	07:18 17:41	09:06 (B22)	06:05 20:45	05:44 21:43	04:44 22:10	04:27 21:39	05:05 20:30	06:05 19:07	07:07 17:50	08:15 15:51	08:15 15:42
27	08:24 16:34	07:16 17:43	09:08 (B22)	06:02 20:47	05:42 21:45	04:42 22:10	04:27 21:38	05:06 20:27	06:07 19:04	07:09 17:47	08:17 15:49	08:17 15:43
28	08:22 16:36	07:13 17:45	09:09 (B22)	05:59 20:49	05:40 21:47	04:41 22:10	04:28 21:36	05:08 20:24	06:09 19:02	07:11 17:45	08:19 15:48	08:24 (B22) 15:44
29	08:20 16:39	07:11 17:48	09:10 (B22)	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 17:43	08:21 15:47	08:26 (B22) 15:45
30	08:19 16:41	07:11 17:48	09:11 (B22)	05:54 20:54	05:35 21:50	04:38 22:09	04:29 21:32	05:12 20:19	06:13 18:56	07:15 17:41	08:22 15:46	08:27 (B22) 15:46
31	08:17 16:43	07:11 17:48	09:12 (B22)	05:51 20:53	05:32 21:51	04:37 22:09	04:27 21:30	05:14 20:17	06:15 18:51	07:16 17:41	08:23 15:47	08:28 (B22) 15:47
Potential sun hours	235	266		366	426	508	529	469	385	324	247	216
Total, worst case												
Sun reduction	108	220								15	319	
Oper. time red.	0.13	0.20								0.26	0.08	
Wind dir. red.	0.98	0.98								0.98	0.98	
Total reduction	0.60	0.60								0.60	0.60	
Total, real	0.08	0.12								0.15	0.05	
	8	26								2	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 05:23/4.0.531

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
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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 15:49	08:15 16:46	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:28 15:44
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:24 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:26 20:04	07:26 18:43	07:31 16:28	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:41	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 20:04	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 20:06	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:32 21:11	06:33 20:06	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 20:06	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:23 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 20:06	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 20:06	07:40 18:25	07:46 16:13	08:40 15:39
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 20:06	07:42 18:22	07:49 16:12	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 20:06	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 20:06	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 20:06	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 20:06	07:50 18:12	07:57 16:04	08:46 15:38
18	08:37 16:16	07:38 17:24	06:26 18:24	06:04 20:28	04:57 21:29	04:26 22:09	04:51 21:52	05:49 20:50	06:51 20:06	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:26 22:09	04:53 21:51	05:51 20:47	06:53 20:06	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:26 22:10	04:54 21:49	05:53 20:45	06:55 20:06	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 20:06	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 20:06	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:00 21:45	05:59 20:37	07:01 20:06	08:03 18:00	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:50 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 20:06	08:05 18:00	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:46 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 20:06	08:07 18:00	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:06 20:30	07:07 20:06	08:08 18:00	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:08 20:27	07:09 20:06	08:10 18:00	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:10 20:24	07:11 20:06	08:11 18:00	08:19 15:49	08:51 15:44
29	08:20 16:39	07:11 17:47	05:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:12 20:22	07:13 20:06	08:12 18:00	08:21 15:47	08:51 15:45
30	08:19 16:41	07:11 17:49	05:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 20:06	08:13 18:00	08:22 15:46	08:51 15:46
31	08:17 16:43	07:11 17:51	05:52 19:51	05:37 20:51	04:37 21:51	04:30 21:51	05:14 21:30	06:16 20:17	07:20 20:06	08:14 18:00	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vilbaude - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (17)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51	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	20:55	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	22:09	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	06:22	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	15:43
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	05:26	06:27	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	06:22	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	21:26	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	04:26	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	08:38	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	04:25	04:53	05:51	06:53	07:55	08:01	08:47
	16:18	17:26	18:26	20:31	21:31	22:09	21:51	20:47	19:26	18:07	16:01	15:39
20	08:35	07:33	06:21	05:59	04:54	04:26	04:54	05:53	06:55	07:57	08:03	08:48
	16:20	17:28	18:28	20:33	21:33	22:10	21:49	20:45	19:23	18:05	15:59	15:39
21	08:33	07:31	06:18	05:57	04:52	04:26	04:56	05:55	06:57	07:59	08:05	08:48
	16:22	17:30	18:30	20:35	21:35	22:10	21:48	20:42	19:21	18:02	15:58	15:39
22	08:32	07:28	06:16	05:54	04:50	04:26	04:58	05:57	06:59	08:01	08:07	08:49
	16:24	17:32	18:32	20:37	21:37	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	04:46	04:27	05:03	06:03	07:05	07:07	08:13	08:50
	16:30	17:39	18:39	20:43	21:42	22:10	21:41	20:32	19:10	16:52	15:52	15:42
26	08:26	07:18	06:05	05:45	04:44	04:27	05:05	06:05	07:07	07:10	08:15	08:51
	16:32	17:41	18:41	20:45	21:43	22:10	21:39	20:30	19:07	16:50	15:51	15:42
27	08:24	07:16	06:02	05:42	04:43	04:28	05:07	06:07	07:09	07:12	08:17	08:51
	16:35	17:43	18:43	20:47	21:45	22:10	21:38	20:27	19:04	16:48	15:50	15:43
28	08:22	07:13	06:00	05:40	04:41	04:28	05:08	06:09	07:11	07:14	08:19	08:51
	16:37	17:46	18:45	20:49	21:47	22:10	21:36	20:24	19:02	16:45	15:49	15:44
29	08:20		06:57	05:37	04:40	04:29	05:10	06:12	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)	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vilniš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (138)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March	April	May	June
1	08:51		13:28 (B22)	08:15		13:45 (B22)	07:11	06:49	05:32	04:36
	15:48	59	14:31 (B14)	16:45	30	14:15 (B22)	17:47	19:53	20:55	21:53
2	08:50		13:29 (B22)	08:13		13:47 (B22)	07:08	06:46	05:30	04:35
	15:49	57	14:31 (B14)	16:47	27	14:14 (B22)	17:50	19:55	20:57	21:54
3	08:50		13:29 (B22)	08:11		13:49 (B22)	07:06	06:43	05:28	04:34
	15:51	57	14:31 (B14)	16:50	23	14:12 (B22)	17:52	19:57	20:59	21:55
4	08:50		13:29 (B22)	08:09		13:52 (B22)	07:03	06:41	05:26	04:33
	15:52	55	14:30 (B14)	16:52	18	14:10 (B22)	17:54	19:59	21:02	21:57
5	08:49		13:30 (B22)	08:07		13:57 (B22)	07:00	06:38	05:23	04:32
	15:53	55	14:31 (B14)	16:54	9	14:06 (B22)	17:56	20:01	21:04	21:58
6	08:49		13:30 (B22)	08:05			06:58	06:35	05:21	04:31
	15:55	53	14:30 (B14)	16:56			17:58	20:03	21:06	21:59
7	08:48		13:30 (B22)	08:03			06:55	06:33	05:19	04:30
	15:56	51	14:29 (B14)	16:59			18:00	20:05	21:08	22:00
8	08:47		13:30 (B22)	08:00			06:53	06:30	05:17	04:29
	15:58	45	14:15 (B22)	17:01			18:03	20:07	21:10	22:01
9	08:47		13:31 (B22)	07:58			06:50	06:27	06:53 (B4)	05:15
	15:59	45	14:16 (B22)	17:03			18:05	20:10	06:58 (B4)	21:12
10	08:46		13:31 (B22)	07:56			06:47	06:25	06:50 (B4)	05:13
	16:01	45	14:16 (B22)	17:05			18:07	20:12	07:00 (B4)	21:14
11	08:45		13:31 (B22)	07:54			06:45	06:22	06:48 (B4)	05:10
	16:03	46	14:17 (B22)	17:08			18:09	20:14	07:02 (B4)	21:16
12	08:44		13:31 (B22)	07:52			06:42	06:20	06:45 (B4)	05:08
	16:04	46	14:17 (B22)	17:10			18:11	20:16	07:02 (B4)	21:18
13	08:43		13:31 (B22)	07:49			06:39	06:17	06:43 (B4)	05:06
	16:06	46	14:17 (B22)	17:12			18:13	20:18	07:03 (B4)	21:20
14	08:42		13:32 (B22)	07:47			06:37	06:14	06:41 (B4)	05:04
	16:08	46	14:18 (B22)	17:14			18:15	20:20	07:02 (B4)	21:22
15	08:41		13:32 (B22)	07:45			06:34	06:12	06:41 (B4)	05:02
	16:10	46	14:18 (B22)	17:17			18:17	20:22	07:03 (B4)	21:24
16	08:40		13:33 (B22)	07:43			06:31	06:09	06:40 (B4)	05:01
	16:12	46	14:19 (B22)	17:19			18:20	20:24	07:02 (B4)	21:25
17	08:39		13:33 (B22)	07:40			06:29	06:07	06:40 (B4)	04:59
	16:14	45	14:18 (B22)	17:21			18:22	20:26	07:02 (B4)	21:27
18	08:37		13:34 (B22)	07:38			06:26	06:04	06:40 (B4)	04:57
	16:16	45	14:19 (B22)	17:23			18:24	20:28	07:01 (B4)	21:29
19	08:36		13:34 (B22)	07:35			06:23	06:02	06:41 (B4)	04:55
	16:18	45	14:19 (B22)	17:25			18:26	20:30	07:01 (B4)	21:31
20	08:35		13:35 (B22)	07:33			06:21	05:59	06:41 (B4)	04:53
	16:20	45	14:20 (B22)	17:28			18:28	20:32	06:59 (B4)	21:33
21	08:33		13:35 (B22)	07:31			06:18	05:57	06:42 (B4)	04:52
	16:22	45	14:20 (B22)	17:30			18:30	20:35	06:58 (B4)	21:35
22	08:32		13:35 (B22)	07:28			06:15	05:54	06:44 (B4)	04:50
	16:24	45	14:20 (B22)	17:32			18:32	20:37	06:56 (B4)	21:36
23	08:30		13:36 (B22)	07:26			06:13	05:52	06:46 (B4)	04:48
	16:26	43	14:19 (B22)	17:34			18:34	20:39	06:53 (B4)	21:38
24	08:29		13:36 (B22)	07:23			06:10	05:49		04:47
	16:28	43	14:19 (B22)	17:37			18:36	20:41		21:40
25	08:27		13:38 (B22)	07:21			06:07	05:47		04:45
	16:30	42	14:20 (B22)	17:39			18:38	20:43		21:42
26	08:25		13:39 (B22)	07:18			06:05	05:44		04:44
	16:32	41	14:20 (B22)	17:41			18:40	20:45		21:43
27	08:24		13:39 (B22)	07:16			06:02	05:42		04:42
	16:34	40	14:19 (B22)	17:43			18:43	20:47		21:45
28	08:22		13:40 (B22)	07:13			05:59	05:40		04:41
	16:36	39	14:19 (B22)	17:45			18:45	20:49		21:47
29	08:20		13:41 (B22)				06:57	05:37		04:39
	16:39	37	14:18 (B22)				19:47	20:51		21:48
30	08:18		13:43 (B22)				06:54	05:35		04:38
	16:41	35	14:18 (B22)				19:49	20:53		21:50
31	08:17		13:43 (B22)				06:51			04:37
	16:43	33	14:16 (B22)				19:51			21:51
Potential sun hours	235			266			366	426	508	529
Total, worst case	1421			107				247		
Sun reduction	0.13			0.20				0.50		
Oper. time red.	0.98			0.98				0.98		
Wind dir. red.	0.65			0.65				0.66		
Total reduction	0.09			0.13				0.32		
Total, real	121			14				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 05:23/4.0.531

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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September		October	November		December	
1	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (B4) 07:00 (B4)	07:17 18:54	07:23 16:36		08:24 15:45	13:13 (B22) 13:59 (B22)
2	04:31 22:08	05:17 21:26	06:19 20:11	06:49 (B4) 06:59 (B4)	07:19 18:51	07:25 16:34		08:26 15:44	13:14 (B22) 13:59 (B22)
3	04:32 22:08	05:19 21:24	06:21 20:09	06:51 (B4) 06:56 (B4)	07:21 18:48	07:27 16:31		08:28 15:43	13:14 (B22) 13:59 (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	13:14 (B22) 13:59 (B22)
5	04:34 22:07	05:23 21:19	06:25 20:03		07:25 18:43	07:31 16:27		08:31 15:42	13:15 (B22) 14:14 (B14)
6	04:35 22:06	05:25 21:17	06:27 20:01		07:27 18:40	07:33 16:25	13:26 (B22)	08:32 15:41	13:16 (B22) 14:16 (B14)
7	04:36 22:05	05:27 21:15	06:29 19:58		07:29 18:38	07:36 16:23	13:21 (B22) 13:40 (B22)	08:34 15:40	13:16 (B22) 14:17 (B14)
8	04:37 22:04	05:29 21:13	06:31 19:55		07:32 18:35	07:38 16:21	13:19 (B22) 13:43 (B22)	08:35 15:40	13:17 (B22) 14:18 (B14)
9	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:32	07:40 16:19	13:17 (B22) 13:45 (B22)	08:37 15:39	13:17 (B22) 14:19 (B14)
10	04:39 22:02	05:33 21:08	06:35 19:50		07:36 18:30	07:42 16:17	13:15 (B22) 13:46 (B22)	08:38 15:39	13:18 (B22) 14:20 (B14)
11	04:41 22:01	05:35 21:06	06:37 19:47		07:38 18:27	07:44 16:15	13:15 (B22) 13:48 (B22)	08:39 15:38	13:18 (B22) 14:21 (B14)
12	04:42 22:00	05:37 21:04	06:39 19:45		07:40 18:25	07:46 16:13	13:13 (B22) 13:49 (B22)	08:40 15:38	13:19 (B22) 14:22 (B14)
13	04:43 21:59	05:39 21:01	06:41 19:42		07:42 18:22	07:49 16:11	13:13 (B22) 13:50 (B22)	08:42 15:38	13:20 (B22) 14:23 (B14)
14	04:45 21:58	05:41 20:59	06:43 19:39		07:44 18:19	07:51 16:09	13:12 (B22) 13:51 (B22)	08:43 15:38	13:20 (B22) 14:23 (B14)
15	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17	07:53 16:08	13:11 (B22) 13:51 (B22)	08:44 15:38	13:21 (B22) 14:24 (B14)
16	04:48 21:55	05:45 20:54	06:47 19:34		07:48 18:14	07:55 16:06	13:11 (B22) 13:53 (B22)	08:45 15:38	13:21 (B22) 14:24 (B14)
17	04:49 21:54	05:47 20:52	06:49 19:31		07:50 18:12	07:57 16:04	13:11 (B22) 13:53 (B22)	08:45 15:38	13:22 (B22) 14:25 (B14)
18	04:51 21:52	05:49 20:49	06:51 19:29		07:52 18:09	07:59 16:02	13:10 (B22) 13:53 (B22)	08:46 15:38	13:23 (B22) 14:26 (B14)
19	04:52 21:51	05:51 20:47	06:53 19:26		07:54 18:07	08:01 16:01	13:11 (B22) 13:54 (B22)	08:47 15:38	13:22 (B22) 14:26 (B14)
20	04:54 21:49	05:53 20:45	06:55 19:23		07:57 18:04	08:03 15:59	13:10 (B22) 13:55 (B22)	08:48 15:39	13:23 (B22) 14:26 (B14)
21	04:56 21:48	05:55 20:42	06:57 19:20		07:59 18:02	08:05 15:58	13:10 (B22) 13:55 (B22)	08:48 15:39	13:24 (B22) 14:27 (B14)
22	04:57 21:46	05:57 20:40	06:59 19:18		08:01 17:59	08:07 15:56	13:11 (B22) 13:56 (B22)	08:49 15:39	13:24 (B22) 14:27 (B14)
23	04:59 21:45	05:59 20:37	07:01 19:15		08:03 17:57	08:09 15:55	13:11 (B22) 13:56 (B22)	08:49 15:40	13:25 (B22) 14:28 (B14)
24	05:01 21:43	06:01 20:35	07:03 19:12		08:05 17:55	08:11 15:53	13:11 (B22) 13:56 (B22)	08:50 15:40	13:25 (B22) 14:29 (B14)
25	05:03 21:41	06:03 20:32	07:05 19:10		08:07 17:52	08:13 15:52	13:11 (B22) 13:56 (B22)	08:50 15:41	13:25 (B22) 14:29 (B14)
26	05:04 21:39	06:05 20:29	07:07 19:07		08:09 17:50	08:15 15:51	13:11 (B22) 13:57 (B22)	08:51 15:42	13:26 (B22) 14:29 (B14)
27	05:06 21:37	06:07 20:27	07:09 19:04		08:12 17:47	08:17 15:49	13:12 (B22) 13:58 (B22)	08:51 15:43	13:26 (B22) 14:29 (B14)
28	05:08 21:36	06:09 20:24	07:11 19:02		08:14 17:44	08:19 15:48	13:12 (B22) 13:58 (B22)	08:51 15:44	13:27 (B22) 14:30 (B14)
29	05:10 21:34	06:11 20:22	07:13 18:59		08:16 17:41	08:21 15:47	13:13 (B22) 13:58 (B22)	08:51 15:45	13:27 (B22) 14:30 (B14)
30	05:12 21:32	06:13 20:19	07:15 18:56		08:18 17:38	08:22 15:46	13:13 (B22) 13:59 (B22)	08:51 15:46	13:28 (B22) 14:31 (B14)
31	05:14 21:30	06:15 20:17	07:17 18:54		08:20 17:35	08:25 15:45	13:14 (B22) 13:59 (B22)	08:51 15:47	13:28 (B22) 14:31 (B14)
Potential sun hours	529	469	385		324	247		216	
Total, worst case		221		28		967		1755	
Sun reduction		0.50		0.43		0.08		0.07	
Oper. time red.		0.98		0.98		0.98		0.98	
Wind dir. red.		0.66		0.66		0.65		0.66	
Total reduction		0.32		0.27		0.05		0.05	
Total, real		71		8		51		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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vizbuli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (7)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vizuli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (74)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 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

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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 05:23/4.0.531

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
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Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:47	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11	07:19 18:50	07:24 16:33	08:26 15:43
3	08:50 15:50	08:10 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:51	08:08 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:42	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:22	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:09	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:37 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	06:24 20:11	05:12 21:13	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	08:39 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	06:19 20:15	05:08 21:17	04:26 22:05	04:41 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:41 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:25 22:06	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:37
15	08:41 16:09	07:44 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:16	07:52 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:33	07:48 18:14	07:55 16:05	08:44 15:37
17	08:38 16:13	07:40 17:20	06:28 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:03	08:45 15:37
18	08:37 16:15	07:37 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:24 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:25	06:01 20:30	04:54 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:25	07:54 18:06	08:01 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	06:20 18:28	05:59 20:32	04:53 21:33	04:24 22:09	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:56	08:09 15:54	08:49 15:39
24	08:28 16:27	07:23 17:36	06:10 18:36	05:49 20:40	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:20 17:38	06:07 18:38	05:46 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:40	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:50 15:41
27	08:23 16:34	07:15 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:50 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:09 21:33	06:11 20:21	07:13 18:58	07:16 16:42	08:20 15:46	08:51 15:44
30	08:18 16:40		06:54 19:48	05:34 20:53	04:38 21:49	04:29 22:09	05:11 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:50		04:36 21:51		05:13 21:29	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (72)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	07:37 (B24) 19:53	05:33 20:55	06:00 (B22) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	07:34 (B24) 19:55	05:30 20:58	05:58 (B22) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	07:32 (B24) 19:57	05:28 21:00	05:58 (B22) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	07:29 (B24) 19:59	05:26 21:02	05:58 (B22) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	07:26 (B24) 20:01	05:24 21:04	05:58 (B22) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	07:24 (B24) 20:03	05:21 21:06	05:59 (B22) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	07:24 (B24) 20:06	05:19 21:08	06:00 (B22) 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	07:24 (B24) 20:08	05:17 21:10	06:00 (B22) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	07:17 (B14) 20:10	05:15 21:12	06:01 (B22) 22:02
10	08:46 16:01	07:56 17:05	06:48 18:07	07:13 (B14) 20:12	05:13 21:14	06:03 (B22) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	07:10 (B14) 20:14	05:11 21:16	06:05 (B22) 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	07:08 (B14) 20:16	05:09 21:18	06:10 (B22) 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	07:06 (B14) 20:18	05:07 21:20	06:10 (B22) 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	07:05 (B14) 20:20	05:05 21:22	06:10 (B22) 22:07
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18	08:37 16:16	07:38 17:23	06:26 18:24	07:01 (B14) 20:28	04:57 21:29	06:10 (B22) 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	07:02 (B14) 20:31	04:55 21:31	06:10 (B22) 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	07:01 (B14) 20:33	04:53 21:33	06:10 (B22) 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	07:01 (B14) 20:35	04:52 21:35	06:10 (B22) 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	07:02 (B14) 20:37	04:50 21:37	06:10 (B22) 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	07:01 (B14) 20:39	04:48 21:38	06:10 (B22) 22:10
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26	08:26 16:32	07:18 17:41	06:05 18:41	07:03 (B14) 20:45	04:44 21:43	06:10 (B22) 22:10
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30	08:18 16:41	07:09 17:49	05:54 19:49	08:21 (B14) 20:53	04:38 21:50	06:05 (B22) 22:10
31	08:17 16:43	07:07 17:47	05:51 19:51		04:37 21:51	06:03 (B22) 22:09
Potential sun hours	235	266	366	426	508	528
Total, worst case		1	706	61	184	
Sun reduction		0.20	0.41	0.50	0.57	
Oper. time red.		0.98	0.98	0.98	0.98	
Wind dir. red.		0.62	0.63	0.66	0.66	
Total reduction		0.12	0.25	0.32	0.37	
Total, real		0	177	20	68	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

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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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:47 (B14) 16:36	08:24 15:45
2	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:48 (B14) 16:34	08:26 15:44
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:50 (B14) 16:32	08:28 15:43
4	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:52 (B14) 16:30	08:29 15:43
5	04:34 22:07	05:24 21:20	06:25 20:03	07:25 18:43	08:02 (B24) 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:01 (B24) 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:00 (B24) 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:00 (B24) 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:03 (B24) 16:19	08:37 15:39
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:05 (B24) 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:07 (B24) 16:15	08:39 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:09 (B24) 16:13	08:40 15:38
13	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:11 (B24) 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	08:00 (B14) 18:20	07:44 16:10	08:43 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:57 (B14) 18:17	07:46 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:54 (B14) 18:15	07:48 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:52 (B14) 18:12	07:50 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:51 (B14) 18:09	07:52 16:03	08:46 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:49 (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	07:47 (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	07:46 (B14) 17:57	08:03 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	07:45 (B14) 17:55	08:05 15:53	08:50 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	07:45 (B14) 17:52	08:07 15:52	08:51 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	07:45 (B14) 17:50	08:10 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	07:45 (B14) 17:48	08:12 15:50	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	07:45 (B14) 17:46	08:14 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	07:45 (B14) 17:43	08:16 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	07:46 (B14) 17:41	08:18 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		249	477	236		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.66	0.63	0.62		
Total reduction		0.32	0.26	0.16		
Total, real		80	125	37		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzite - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (141)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Varkali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (123)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
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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	08:07 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 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Veji - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (130)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	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	07:47 (B14) 08:13 (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	24	07:48 (B14) 08:12 (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	17	07:52 (B14) 08:09 (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	10	07:56 (B14) 08:06 (B14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	1	07:21 (B14) 07:28 (B14)	06:33 21:08	05:19 22:00	04:30 22:05	05:27 21:15	06:29 19:58		07:30 18:38	5	07:58 (B14) 08:03 (B14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	7	07:18 (B14) 07:30 (B14)	06:30 21:08	05:17 22:01	04:29 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	12	07:16 (B14) 07:32 (B14)	06:28 21:10	05:15 22:02	04:29 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	16	07:13 (B14) 07:32 (B14)	06:25 21:12	05:13 22:03	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	19	07:10 (B14) 07:33 (B14)	06:22 21:14	05:11 22:03	04:27 22:02	05:35 21:08	06:37 19:50		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	23	07:08 (B14) 07:34 (B14)	06:20 21:16	05:09 22:04	04:27 22:01	05:37 21:06	06:39 19:48		07:40 18:25			07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	26	07:07 (B14) 07:33 (B14)	06:17 21:18	05:07 22:05	04:27 22:00	05:39 21:04	06:41 19:45		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	26	07:06 (B14) 07:33 (B14)	06:15 21:20	05:05 22:06	04:26 21:59	05:41 21:02	06:43 19:42		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	07:07 (B14) 07:33 (B14)	06:12 21:22	05:03 22:07	04:26 21:58	05:43 20:59	06:45 19:39		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	07:07 (B14) 07:32 (B14)	06:09 21:24	05:01 22:07	04:26 21:57	05:45 20:57	06:47 19:37		07:48 18:12			07:55 16:04	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	25	07:06 (B14) 07:31 (B14)	06:07 21:26	04:59 22:08	04:25 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 16:16	07:38 17:23	06:26 18:24	25	07:07 (B14) 07:30 (B14)	06:04 21:28	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	07:08 (B14) 07:29 (B14)	06:02 21:31	04:55 22:09	04:25 21:51	05:51 20:47	06:53 19:26		07:55 18:07			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	21	07:09 (B14) 07:27 (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	18	07:10 (B14) 07:25 (B14)	05:57 21:35	04:52 22:10	04:25 21:48	05:55 20:42	06:57 19:21	08:00 (B14)	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	15	07:13 (B14) 07:22 (B14)	05:54 21:37	04:50 22:10	04:26 21:46	05:57 20:40	06:59 19:18	07:56 (B14)	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	9	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	07:54 (B14)	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	07:52 (B14)	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	07:51 (B14)	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	07:50 (B14)	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	04:28 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:49 (B14)	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	07:48 (B14)	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	07:47 (B14)	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	07:47 (B14)	07:18 16:41			08:22 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 20:17	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				319						209		117				
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.98						0.98		0.98				
Wind dir. red.				0.62						0.62		0.62				
Total reduction				0.25						0.26		0.16				
Total, real				80						54		18				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vejini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (91)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	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	13	07:52 (B14) 08:05 (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	8	07:54 (B14) 08:02 (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	3	07:56 (B14) 07:59 (B14)	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	6	07:16 (B14) 07:27 (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	11	07:13 (B14) 07:28 (B14)	06:25 20:12	05:13 21:14	04:28 22:03	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	15	07:10 (B14) 07:28 (B14)	06:22 20:14	05:11 21:16	04:27 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	18	07:08 (B14) 07:30 (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	22	07:05 (B14) 07:30 (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	25	07:04 (B14) 07:29 (B14)	06:15 20:20	05:05 21:22	04:26 22:07	05:41 21:58	06:43 19:39		07:44 18:20			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	26	07:04 (B14) 07:30 (B14)	06:12 20:22	05:03 21:24	04:26 22:07	05:46 21:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	26	07:03 (B14) 07:29 (B14)	06:09 20:24	05:01 21:26	04:26 22:08	05:48 21:55	06:47 19:34		07:48 18:15			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	25	07:03 (B14) 07:28 (B14)	06:07 20:26	04:59 21:27	04:25 22:08	05:49 21:54	06:49 19:31		07:50 18:12			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	24	07:03 (B14) 07:27 (B14)	06:04 20:28	04:57 21:29	04:25 22:09	05:51 21:52	06:51 19:29		07:53 18:09			07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	23	07:04 (B14) 07:27 (B14)	06:02 20:31	04:55 21:31	04:25 22:09	05:53 21:51	06:53 19:26		07:55 18:07			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	21	07:04 (B14) 07:25 (B14)	05:59 20:33	04:54 21:33	04:25 22:10	05:53 21:49	06:55 19:23	7	07:57 (B14) 08:04 (B14)			07:57 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	19	07:05 (B14) 07:24 (B14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 21:48	06:57 19:21	14	07:53 (B14) 08:07 (B14)			07:59 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	15	07:07 (B14) 07:22 (B14)	05:54 20:37	04:50 21:37	04:26 22:10	05:57 21:46	06:59 19:18	18	07:51 (B14) 08:09 (B14)			08:01 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	9	07:09 (B14) 07:18 (B14)	05:52 20:39	04:48 21:38	04:26 22:10	05:59 21:45	07:01 20:37	21	07:49 (B14) 08:10 (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	05:01 21:43	06:01 20:35	07:03 19:12	23	07:48 (B14) 08:11 (B14)			08:05 15:53	08:51 15:40
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	24	07:07 (B14) 08:11 (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	25	07:06 (B14) 08:11 (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	26	07:09 (B14) 08:11 (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	26	07:11 (B14) 08:11 (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	26	07:13 (B14) 08:10 (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	26	07:15 (B14) 08:10 (B14)			07:18 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51			05:14 21:30	06:15 20:17			07:20 16:38			08:51 15:47	
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case			310							236		83				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.98							0.98		0.98				
Wind dir. red.			0.63							0.63		0.63				
Total reduction			0.25							0.26		0.16				
Total, real			78							62		13				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vejkalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (163)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51		09:30 (B14)	08:15		09:41 (B14)	07:11			06:49		07:46 (B22)	05:33			04:36		
	15:48	19	09:49 (B14)	16:45	15	09:56 (B14)	17:48			19:53	14	08:00 (B22)	20:55			21:53		
2	08:50		09:30 (B14)	08:13		09:44 (B14)	07:08			06:46		07:49 (B22)	05:30			04:35		
	15:49	20	09:50 (B14)	16:48	10	09:54 (B14)	17:50			19:55	6	07:55 (B22)	20:58			21:54		
3	08:50		09:30 (B14)	08:11			07:06			06:43			05:28			04:34		
	15:51	21	09:51 (B14)	16:50			17:52			19:57			21:00			21:55		
4	08:50		09:29 (B14)	08:09			07:03			06:41			05:26			04:33		
	15:52	22	09:51 (B14)	16:52			17:54			19:59			21:02			21:57		
5	08:49		09:30 (B14)	08:07			07:01			06:38			05:23			04:32		
	15:53	23	09:53 (B14)	16:54			17:56			20:01			21:04			21:58		
6	08:49		09:30 (B14)	08:05			06:58			06:36			05:21			04:31		
	15:55	23	09:53 (B14)	16:56			17:58			20:03			21:06			21:59		
7	08:48		09:30 (B14)	08:03			06:55			06:33			05:19			04:30		
	15:56	24	09:54 (B14)	16:59			18:01			20:06			21:08			22:00		
8	08:48		09:30 (B14)	08:01			06:53			06:30			05:17			04:29		
	15:58	25	09:55 (B14)	17:01			18:03			20:08			21:10			22:01		
9	08:47		09:30 (B14)	07:58			06:50			06:28			05:15			04:29		
	16:00	26	09:56 (B14)	17:03			18:05			20:10			21:12			22:02		
10	08:46		09:30 (B14)	07:56			06:47			06:25			05:13			04:28		
	16:01	27	09:57 (B14)	17:05			18:07			20:12			21:14			22:03		
11	08:45		09:30 (B14)	07:54			06:45			06:22			05:11			04:27		
	16:03	27	09:57 (B14)	17:08			18:09			20:14			21:16			22:04		
12	08:44		09:30 (B14)	07:52			06:42			06:20			05:09			04:27		
	16:05	28	09:58 (B14)	17:10			18:11			20:16			21:18			22:05		
13	08:43		09:30 (B14)	07:50			06:40			06:17			05:07			04:26		
	16:06	28	09:58 (B14)	17:12			18:13			20:18			21:20			22:06		
14	08:42		09:30 (B14)	07:47			06:37			06:15			05:05			04:26		
	16:08	29	09:59 (B14)	17:14			18:15			20:20			21:22			22:07		
15	08:41		09:31 (B14)	07:45			06:34			06:12			05:03			04:26		
	16:10	29	10:00 (B14)	17:17			18:18			20:22			21:24			22:07		
16	08:40		09:30 (B14)	07:43			06:32			06:09			05:01			04:26		
	16:12	30	10:00 (B14)	17:19			18:20			20:24			21:26			22:08		
17	08:39		09:31 (B14)	07:40			06:29		06:54 (B22)	06:07			04:59			04:25		
	16:14	30	10:01 (B14)	17:21			18:22	9	07:03 (B22)	20:26			21:27			22:08		
18	08:38		09:31 (B14)	07:38			06:26		06:51 (B22)	06:04			04:57			04:25		
	16:16	30	10:01 (B14)	17:23			18:24	14	07:05 (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	30	10:01 (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		06:46 (B22)	05:59			04:53			04:25		
	16:20	30	10:02 (B14)	17:28			18:28	22	07:08 (B22)	20:33			21:33			22:10		
21	08:33		09:32 (B14)	07:31			06:18		06:44 (B22)	05:57			04:52			04:25		
	16:22	30	10:02 (B14)	17:30			18:30	24	07:08 (B22)	20:35			21:35			22:10		
22	08:32		09:32 (B14)	07:28			06:16		06:43 (B22)	05:54			04:50			04:26		
	16:24	30	10:02 (B14)	17:32			18:32	26	07:09 (B22)	20:37			21:37			22:10		
23	08:30		09:32 (B14)	07:26			06:13		06:42 (B22)	05:52			04:48			04:26		
	16:26	30	10:02 (B14)	17:34			18:34	27	07:09 (B22)	20:39			21:38			22:10		
24	08:29		09:33 (B14)	07:23			06:10		06:41 (B22)	05:49			04:47			04:26		
	16:28	30	10:03 (B14)	17:37			18:36	28	07:09 (B22)	20:41			21:40			22:10		
25	08:27		09:34 (B14)	07:21			06:08		06:42 (B22)	05:47			04:45			04:26		
	16:30	29	10:03 (B14)	17:39			18:38	27	07:09 (B22)	20:43			21:42			22:10		
26	08:26		09:35 (B14)	07:18			06:05		06:41 (B22)	05:44			04:44			04:27		
	16:32	27	10:02 (B14)	17:41			18:41	27	07:08 (B22)	20:45			21:43			22:10		
27	08:24		09:35 (B14)	07:16			06:02		06:41 (B22)	05:42			04:42			04:27		
	16:34	27	10:02 (B14)	17:43			18:43	26	07:07 (B22)	20:47			21:45			22:10		
28	08:22		09:36 (B14)	07:13			05:59		06:42 (B22)	05:40			04:41			04:28		
	16:37	26	10:02 (B14)	17:45			18:45	25	07:07 (B22)	20:49			21:47			22:10		
29	08:20		09:37 (B14)				06:57		07:42 (B22)	05:37			04:40			04:29		
	16:39	24	10:01 (B14)				19:47	23	08:05 (B22)	20:51			21:48			22:10		
30	08:19		09:39 (B14)				06:54		07:43 (B22)	05:35			04:38			04:29		
	16:41	21	10:00 (B14)				19:49	21	08:04 (B22)	20:53			21:50			22:09		
31	08:17		09:40 (B14)				06:51		07:44 (B22)				04:37					
	16:43	19	09:59 (B14)				19:51	19	08:03 (B22)				21:51					
Potential sun hours	235			266			366			426			508			529		
Total, worst case	814			25			336			20								
Sun reduction	0.13			0.20			0.41			0.50								
Oper. time red.	0.98			0.98			0.98			0.98								
Wind dir. red.	0.61			0.61			0.64			0.64								
Total reduction	0.08			0.12			0.25			0.31								
Total, real	63			3			85			6								

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vejkalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (163)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 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	08:01 18:00	08:07 15:56	08:49 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 16:50	08:15 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 16:48	08:17 15:49	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 16:45	08:19 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 16:43	08:21 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 16:41	08:22 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17		08:19 16:38	08:24 15:47	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			364		584	526
Sun reduction			0.43		0.08	0.07
Oper. time red.			0.98		0.98	0.98
Wind dir. red.			0.64		0.61	0.61
Total reduction			0.26		0.05	0.04
Total, real			96		28	21

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vetras - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (161)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (120)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	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) 07:29 (B24)	05:30 20:57
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	07:09 (B24) 07:30 (B24)	05:28 21:00
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:08 (B24) 07:30 (B24)	05:26 21:02
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	07:07 (B24) 07:29 (B24)	05:24 21:04
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	07:07 (B24) 07:30 (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) 07:29 (B24)	05:19 21:08
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	07:07 (B24) 07:29 (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) 07:27 (B24)	05:15 21:12
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	07:08 (B24) 07:25 (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) 07:24 (B24)	05:11 21:16
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	07:11 (B24) 07:21 (B24)	05:09 21:18
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	05:51 (B14) 06:26 (B14)
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	05:50 (B14) 06:26 (B14)
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	05:49 (B14) 06:26 (B14)
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	05:49 (B14) 06:26 (B14)
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	05:49 (B14) 06:27 (B14)
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	05:49 (B14) 06:26 (B14)
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	05:49 (B14) 06:27 (B14)
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	05:49 (B14) 06:27 (B14)
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	05:50 (B14) 06:27 (B14)
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	05:49 (B14) 06:27 (B14)
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	05:50 (B14) 06:27 (B14)
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	05:49 (B14) 06:26 (B14)
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	04:45 21:42	05:50 (B14) 06:26 (B14)
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	05:50 (B14) 06:26 (B14)
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	05:51 (B14) 06:27 (B14)
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	05:50 (B14) 06:26 (B14)
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	05:51 (B14) 06:26 (B14)
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:50	05:51 (B14) 06:25 (B14)
31	08:17 16:43		06:51 19:51	05:33 20:55	04:37 21:51	05:52 (B14) 06:25 (B14)
Potential sun hours	235	266	366	426	508	528
Total, worst case			18	227	949	756
Sun reduction			0.41	0.50	0.57	0.56
Oper. time red.			0.98	0.98	0.98	0.98
Wind dir. red.			0.66	0.66	0.67	0.67
Total reduction			0.26	0.32	0.37	0.36
Total, real			5	73	352	276

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (120)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July		August		September		October		November		December	
1	04:30	06:03 (B14)	05:16	06:02 (B14)	06:17	07:08 (B24)	07:17	07:23	08:24			
	22:09	25	06:28 (B14)	21:28	34	06:36 (B14)	20:14	15	07:23 (B24)	18:54	16:36	15:45
2	04:31	06:02 (B14)	05:18	06:01 (B14)	06:19	07:07 (B24)	07:19	07:25	08:26			
	22:08	26	06:28 (B14)	21:26	33	06:34 (B14)	20:11	17	07:24 (B24)	18:51	16:34	15:44
3	04:32	06:02 (B14)	05:20	06:02 (B14)	06:21	07:05 (B24)	07:21	07:27	08:28			
	22:08	26	06:28 (B14)	21:24	32	06:34 (B14)	20:09	20	07:25 (B24)	18:48	16:32	15:43
4	04:33	06:02 (B14)	05:22	06:03 (B14)	06:23	07:05 (B24)	07:23	07:29	08:29			
	22:07	27	06:29 (B14)	21:22	30	06:33 (B14)	20:06	21	07:26 (B24)	18:46	16:30	15:43
5	04:34	06:02 (B14)	05:24	06:04 (B14)	06:25	07:04 (B24)	07:25	07:31	08:31			
	22:07	28	06:30 (B14)	21:19	28	06:32 (B14)	20:03	22	07:26 (B24)	18:43	16:27	15:42
6	04:35	06:01 (B14)	05:25	06:04 (B14)	06:27	07:03 (B24)	07:28	07:33	08:32			
	22:06	29	06:30 (B14)	21:17	27	06:31 (B14)	20:01	23	07:26 (B24)	18:40	16:25	15:41
7	04:36	06:01 (B14)	05:27	06:06 (B14)	06:29	07:02 (B24)	07:30	07:36	08:34			
	22:05	30	06:31 (B14)	21:15	23	06:29 (B14)	19:58	23	07:25 (B24)	18:38	16:23	15:40
8	04:37	06:01 (B14)	05:29	06:08 (B14)	06:31	07:02 (B24)	07:32	07:38	08:35			
	22:04	30	06:31 (B14)	21:13	20	06:28 (B14)	19:55	22	07:24 (B24)	18:35	16:21	15:40
9	04:38	06:01 (B14)	05:31	06:10 (B14)	06:33	07:02 (B24)	07:34	07:40	08:37			
	22:03	31	06:32 (B14)	21:11	16	06:26 (B14)	19:53	22	07:24 (B24)	18:33	16:19	15:39
10	04:40	06:00 (B14)	05:33	06:13 (B14)	06:35	07:04 (B24)	07:36	07:42	08:38			
	22:02	32	06:32 (B14)	21:08	9	06:22 (B14)	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	32	06:33 (B14)	21:06		19:47	16	07:22 (B24)	18:27	16:15	15:39	
12	04:42	06:01 (B14)	05:37		06:39	07:08 (B24)	07:40	07:46	08:40			
	22:00	33	06:34 (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	34	06:34 (B14)	21:02		19:42	8	07:18 (B24)	18:22	16:11	15:38	
14	04:45	06:00 (B14)	05:41		06:43	07:12 (B24)	07:44	07:51	08:43			
	21:58	34	06:34 (B14)	20:59		19:39	2	07:14 (B24)	18:20	16:10	15:38	
15	04:46	06:00 (B14)	05:43		06:45		07:46	07:53	08:44			
	21:57	35	06:35 (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	35	06:35 (B14)	20:54		19:34		18:15	16:06	15:38		
17	04:49	05:59 (B14)	05:47		06:49		07:50	07:57	08:45			
	21:54	36	06:35 (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	36	06:36 (B14)	20:50		19:29		18:09	16:03	15:38		
19	04:53	05:59 (B14)	05:51		06:53		07:55	08:01	08:47			
	21:51	37	06:36 (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	37	06:37 (B14)	20:45		19:23		18:04	15:59	15:39		
21	04:56	05:59 (B14)	05:55		06:57		07:59	08:05	08:48			
	21:48	37	06:36 (B14)	20:42		19:21		18:02	15:58	15:39		
22	04:58	05:59 (B14)	05:57		06:59		08:01	08:07	08:49			
	21:46	38	06:37 (B14)	20:40		19:18		18:00	15:56	15:40		
23	04:59	05:59 (B14)	05:59		07:01		08:03	08:09	08:49			
	21:45	37	06:36 (B14)	20:37		19:15		17:57	15:55	15:40		
24	05:01	05:59 (B14)	06:01		07:03		08:05	08:11	08:50			
	21:43	38	06:37 (B14)	20:35		19:12		17:55	15:53	15:41		
25	05:03	06:00 (B14)	06:03		07:05		07:07	08:13	08:50			
	21:41	37	06:37 (B14)	20:32		19:10		16:52	15:52	15:41		
26	05:05	05:59 (B14)	06:05		07:07		07:10	08:15	08:51			
	21:39	38	06:37 (B14)	20:30		19:07		16:50	15:51	15:42		
27	05:06	06:00 (B14)	06:07		07:09		07:12	08:17	08:51			
	21:37	37	06:37 (B14)	20:27		19:04		16:48	15:50	15:43		
28	05:08	06:00 (B14)	06:09		07:11		07:14	08:19	08:51			
	21:36	37	06:37 (B14)	20:24		19:02		16:45	15:48	15:44		
29	05:10	06:00 (B14)	06:11		07:13		07:16	08:21	08:51			
	21:34	36	06:36 (B14)	20:22		18:59		16:43	15:47	15:45		
30	05:12	06:00 (B14)	06:13		07:15		07:18	08:22	08:51			
	21:32	36	06:36 (B14)	20:19		18:56		16:41	15:46	15:46		
31	05:14	06:01 (B14)	06:15	07:11 (B24)				07:20	08:51			
	21:30	35	06:36 (B14)	20:17	10	07:21 (B24)		16:38	15:47			
Potential sun hours	529		469		385		324	248	216			
Total, worst case	1039		262		242							
Sun reduction	0.49		0.50		0.43							
Oper. time red.	0.98		0.98		0.98							
Wind dir. red.	0.67		0.67		0.66							
Total reduction	0.32		0.32		0.27							
Total, real	334		85		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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	07:34 (B24) 07:50 (B24)	05:33 20:55
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	07:35 (B24) 07:48 (B24)	05:30 20:57
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	07:38 (B24) 07:45 (B24)	05:28 21:00
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59		05:26 21:02
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01		05:24 21:04
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03		05:21 21:06
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06		05:19 21:08
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08		05:17 21:10
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10		05:15 21:12
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12		05:13 21:14
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14		05:11 21:16
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16		05:09 21:18
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18		05:07 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20		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
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24		05:01 21:25
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	06:45 (B14)	04:59 21:27
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:38 (B14)	04:57 21:29
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	06:36 (B14)	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	06:00 20:33	06:34 (B14)	04:54 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:31 (B14)	04:52 21:35
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:30 (B14)	04:50 21:36
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:28 (B14)	04:48 21:38
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:27 (B14)	04:47 21:40
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	06:27 (B14)	04:45 21:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	06:25 (B14)	04:44 21:43
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:25 (B14)	04:42 21:45
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	06:25 (B14)	04:41 21:47
29	08:20 16:39		06:57 19:47	05:37 20:51	06:24 (B14)	04:40 21:48
30	08:18 16:41		06:54 19:49	05:35 20:53	06:24 (B14)	04:38 21:50
31	08:17 16:43		06:51 19:51	07:33 (B24) 07:52 (B24)		04:37 21:51
Potential sun hours	235	266	366	426	508	528
Total, worst case			214	457	679	615
Sun reduction			0.41	0.50	0.57	0.56
Oper. time red.			0.98	0.98	0.98	0.98
Wind dir. red.			0.65	0.65	0.65	0.67
Total reduction			0.26	0.32	0.36	0.37
Total, real			56	146	246	225

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

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SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

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Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:10 (B22)	05:16	06:36 (B14)	06:17	07:17
	22:09	22	05:32 (B22)	21:28	33	07:09 (B14)
2	04:31	05:10 (B22)	05:18	06:35 (B14)	06:19	07:19
	22:08	21	05:31 (B22)	21:26	35	07:10 (B14)
3	04:32	05:10 (B22)	05:20	06:35 (B14)	06:21	07:21
	22:08	21	05:31 (B22)	21:24	36	07:11 (B14)
4	04:33	05:10 (B22)	05:22	06:35 (B14)	06:23	07:23
	22:07	22	05:32 (B22)	21:22	36	07:11 (B14)
5	04:34	05:11 (B22)	05:24	06:34 (B14)	06:25	07:25
	22:07	21	05:32 (B22)	21:19	38	07:12 (B14)
6	04:35	05:12 (B22)	05:25	06:33 (B14)	06:27	07:28
	22:06	20	05:32 (B22)	21:17	39	07:12 (B14)
7	04:36	05:13 (B22)	05:27	06:33 (B14)	06:29	07:30
	22:05	19	05:32 (B22)	21:15	39	07:12 (B14)
8	04:37	05:14 (B22)	05:29	06:33 (B14)	06:31	07:32
	22:04	18	05:32 (B22)	21:13	39	07:12 (B14)
9	04:38	05:15 (B22)	05:31	06:33 (B14)	06:33	07:32 (B24)
	22:03	17	05:32 (B22)	21:11	40	07:13 (B14)
10	04:40	05:16 (B22)	05:33	06:33 (B14)	06:35	07:33 (B24)
	22:02	16	05:32 (B22)	21:08	40	07:13 (B14)
11	04:41	05:18 (B22)	05:35	06:33 (B14)	06:37	07:34 (B24)
	22:01	14	05:32 (B22)	21:06	40	07:13 (B14)
12	04:42	05:19 (B22)	05:37	06:32 (B14)	06:39	07:35 (B24)
	22:00	13	05:32 (B22)	21:04	40	07:12 (B14)
13	04:44	05:20 (B22)	05:39	06:32 (B14)	06:41	07:36 (B24)
	21:59	12	05:32 (B22)	21:02	40	07:12 (B14)
14	04:45	05:21 (B22)	05:41	06:32 (B14)	06:43	07:37 (B24)
	21:58	10	05:31 (B22)	20:59	39	07:11 (B14)
15	04:46	05:23 (B22)	05:43	06:32 (B14)	06:45	07:38 (B24)
	21:57	8	05:31 (B22)	20:57	39	07:11 (B14)
16	04:48	05:24 (B22)	05:45	06:33 (B14)	06:47	07:39 (B24)
	21:55	6	05:30 (B22)	20:54	38	07:11 (B14)
17	04:49	05:25 (B22)	05:47	06:33 (B14)	06:49	07:40 (B24)
	21:54	4	05:29 (B22)	20:52	37	07:10 (B14)
18	04:51	05:27 (B22)	05:49	06:34 (B14)	06:51	07:41 (B24)
	21:52	2	05:29 (B22)	20:50	35	07:09 (B14)
19	04:53	05:29 (B22)	05:51	06:33 (B14)	06:53	07:42 (B24)
	21:51		20:47	07:07 (B14)	19:26	07:43 (B24)
20	04:54	05:31 (B22)	05:53	06:34 (B14)	06:55	07:44 (B24)
	21:49		20:45	07:06 (B14)	19:23	07:45 (B24)
21	04:56	05:33 (B22)	05:55	06:35 (B14)	06:57	07:46 (B24)
	21:48		20:42	07:05 (B14)	19:21	07:47 (B24)
22	04:58	05:35 (B22)	05:57	06:36 (B14)	06:59	07:48 (B24)
	21:46		20:40	07:04 (B14)	19:18	07:49 (B24)
23	04:59	05:37 (B22)	05:59	06:38 (B14)	07:01	07:50 (B24)
	21:45	4	06:54 (B14)	20:37	24	07:02 (B14)
24	05:01	06:46 (B14)	06:01	06:40 (B14)	07:03	07:51 (B24)
	21:43	13	06:59 (B14)	20:35	20	07:03 (B14)
25	05:03	06:48 (B14)	06:03	06:42 (B14)	07:05	07:52 (B24)
	21:41	17	07:01 (B14)	20:32	15	07:04 (B14)
26	05:05	06:49 (B14)	06:05	06:57 (B14)	07:07	07:53 (B24)
	21:39	21	07:03 (B14)	20:30		07:08 (B14)
27	05:06	06:51 (B14)	06:07		07:09	07:54 (B24)
	21:37	23	07:04 (B14)	20:27		07:09 (B14)
28	05:08	06:52 (B14)	06:09		07:11	07:55 (B24)
	21:36	26	07:06 (B14)	20:24		07:10 (B14)
29	05:10	06:53 (B14)	06:11		07:13	07:56 (B24)
	21:34	28	07:07 (B14)	20:22		07:11 (B14)
30	05:12	06:54 (B14)	06:13		07:15	07:57 (B24)
	21:32	30	07:08 (B14)	20:19		07:12 (B14)
31	05:14	06:55 (B14)	06:15			07:13 (B14)
	21:30	32	07:09 (B14)	20:17		07:14 (B14)
Potential sun hours	529		469		385	324
Total, worst case	460		866		256	247
Sun reduction	0.49		0.50		0.43	216
Oper. time red.	0.98		0.98		0.98	
Wind dir. red.	0.66		0.65		0.65	
Total reduction	0.32		0.32		0.27	
Total, real	147		275		70	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Viksnes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (19)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:43
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:57	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:08	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:20	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:37 22:03	05:31 21:11	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:07	06:24 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:04	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:12 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:51 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:46	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vipes skola 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (187)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January			February			March	April	May	June		
1	08:51		10:02 (B22)	08:15		10:11 (B22)	07:11	06:49	05:32	06:00 (B1)	04:36	
	15:48	34	10:36 (B22)	16:45	35	10:46 (B22)	17:48	19:53	20:55	2	06:02 (B1)	21:53
2	08:50		10:03 (B22)	08:13		10:12 (B22)	07:08	06:46	05:30		05:58 (B1)	04:35
	15:49	34	10:37 (B22)	16:47	33	10:45 (B22)	17:50	19:55	20:57	6	06:04 (B1)	21:54
3	08:50		10:02 (B22)	08:11		10:14 (B22)	07:06	06:43	05:28		05:56 (B1)	04:34
	15:51	35	10:37 (B22)	16:50	30	10:44 (B22)	17:52	19:57	21:00	10	06:06 (B1)	21:55
4	08:50		10:02 (B22)	08:09		10:16 (B22)	07:03	06:41	05:26		05:54 (B1)	04:33
	15:52	35	10:37 (B22)	16:52	27	10:43 (B22)	17:54	19:59	21:02	13	06:07 (B1)	21:57
5	08:49		10:03 (B22)	08:07		10:18 (B22)	07:00	06:38	05:23		05:52 (B1)	04:32
	15:53	36	10:39 (B22)	16:54	24	10:42 (B22)	17:56	20:01	21:04	16	06:08 (B1)	21:58
6	08:49		10:03 (B22)	08:05		10:19 (B22)	06:58	06:35	05:21		05:50 (B1)	04:31
	15:55	36	10:39 (B22)	16:56	20	10:39 (B22)	17:58	20:03	21:06	18	06:08 (B1)	21:59
7	08:48		10:03 (B22)	08:03		10:23 (B22)	06:55	06:33	05:19		05:48 (B1)	04:30
	15:56	37	10:40 (B22)	16:59	13	10:36 (B22)	18:00	20:05	21:08	21	06:09 (B1)	22:00
8	08:48		10:03 (B22)	08:01			06:53	06:30	05:17		05:47 (B1)	04:29
	15:58	38	10:41 (B22)	17:01			18:03	20:08	21:10	22	06:09 (B1)	22:01
9	08:47		10:03 (B22)	07:58			06:50	06:28	05:15		05:47 (B1)	04:28
	15:59	38	10:41 (B22)	17:03			18:05	20:10	21:12	22	06:09 (B1)	22:02
10	08:46		10:03 (B22)	07:56			06:47	06:25	05:13		05:47 (B1)	04:28
	16:01	39	10:42 (B22)	17:05			18:07	20:12	21:14	22	06:09 (B1)	22:03
11	08:45		10:04 (B22)	07:54			06:45	06:22	05:11		05:47 (B1)	04:27
	16:03	39	10:43 (B22)	17:08			18:09	20:14	21:16	22	06:09 (B1)	22:04
12	08:44		10:04 (B22)	07:52			06:42	06:20	05:08		05:47 (B1)	04:27
	16:04	40	10:44 (B22)	17:10			18:11	20:16	21:18	21	06:08 (B1)	22:05
13	08:43		10:03 (B22)	07:49			06:40	06:17	05:06		05:47 (B1)	04:26
	16:06	41	10:44 (B22)	17:12			18:13	20:18	21:20	21	06:08 (B1)	22:06
14	08:42		10:04 (B22)	07:47			06:37	06:14	05:04		05:48 (B1)	04:26
	16:08	41	10:45 (B22)	17:14			18:15	20:20	21:22	20	06:08 (B1)	22:07
15	08:41		10:03 (B22)	07:45			06:34	06:12	05:03		05:48 (B1)	04:26
	16:10	42	10:45 (B22)	17:17			18:18	20:22	21:24	19	06:07 (B1)	22:07
16	08:40		10:04 (B22)	07:43			06:32	06:09	05:01		05:49 (B1)	04:25
	16:12	42	10:46 (B22)	17:19			18:20	20:24	21:25	17	06:06 (B1)	22:08
17	08:39		10:05 (B22)	07:40			06:29	06:07	04:59		05:50 (B1)	04:25
	16:14	42	10:47 (B22)	17:21			18:22	20:26	21:27	16	06:06 (B1)	22:08
18	08:37		10:04 (B22)	07:38			06:26	06:04	04:57		05:51 (B1)	04:25
	16:16	43	10:47 (B22)	17:23			18:24	20:28	21:29	14	06:05 (B1)	22:09
19	08:36		10:04 (B22)	07:35			06:24	06:02	04:55		05:52 (B1)	04:25
	16:18	43	10:47 (B22)	17:26			18:26	20:30	21:31	11	06:03 (B1)	22:09
20	08:35		10:05 (B22)	07:33			06:21	05:59	04:53		05:54 (B1)	04:25
	16:20	43	10:48 (B22)	17:28			18:28	20:33	21:33	8	06:02 (B1)	22:10
21	08:33		10:05 (B22)	07:31			06:18	05:57	04:52			04:25
	16:22	43	10:48 (B22)	17:30			18:30	20:35	21:35			22:10
22	08:32		10:05 (B22)	07:28			06:16	05:54	04:50			04:25
	16:24	43	10:48 (B22)	17:32			18:32	20:37	21:37			22:10
23	08:30		10:06 (B22)	07:26			06:13	05:52	04:48			04:26
	16:26	42	10:48 (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	42	10:49 (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	42	10:49 (B22)	17:39			18:38	20:43	21:42			22:10
26	08:26		10:08 (B22)	07:18			06:05	05:44	04:44			04:27
	16:32	41	10:49 (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	40	10:48 (B22)	17:43			18:43	20:47	21:45			22:10
28	08:22		10:09 (B22)	07:13			05:59	05:40	04:41			04:28
	16:36	39	10:48 (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	39	10:48 (B22)				19:47	20:51	21:48			22:10
30	08:18		10:10 (B22)				06:54	05:35	04:38			04:29
	16:41	38	10:48 (B22)				19:49	20:53	21:50			22:09
31	08:17		10:11 (B22)				06:51		04:37			
	16:43	36	10:47 (B22)				19:51		21:51			
Potential sun hours	235			266			366	426	508		529	
Total, worst case	1223			182					321			
Sun reduction	0.13			0.20					0.57			
Oper. time red.	0.98			0.98					0.98			
Wind dir. red.	0.61			0.61					0.67			
Total reduction	0.08			0.12					0.36			
Total, real	95			21					116			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vipes skola 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (187)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:16	05:57 (B1)	06:17	07:17	07:23
	22:09	21:28	22	06:19 (B1)	20:14	18:54
2	04:31	05:18	05:57 (B1)	06:19	07:19	07:25
	22:09	21:26	22	06:19 (B1)	20:11	18:51
3	04:32	05:19	05:57 (B1)	06:21	07:21	07:27
	22:08	21:24	22	06:19 (B1)	20:09	18:48
4	04:33	05:21	05:58 (B1)	06:23	07:23	07:29
	22:07	21:22	21	06:19 (B1)	20:06	18:46
5	04:34	05:23	05:57 (B1)	06:25	07:25	07:31
	22:07	21:20	21	06:18 (B1)	20:03	18:43
6	04:35	05:25	05:58 (B1)	06:27	07:27	07:33
	22:06	21:17	20	06:18 (B1)	20:01	18:40
7	04:36	05:27	06:00 (B1)	06:29	07:30	07:36
	22:05	21:15	17	06:17 (B1)	19:58	18:38
8	04:37	05:29	06:02 (B1)	06:31	07:32	07:38
	22:04	21:13	15	06:17 (B1)	19:55	18:35
9	04:38	05:31	06:04 (B1)	06:33	07:34	07:40
	22:03	21:11	12	06:16 (B1)	19:53	18:32
10	04:39	05:33	06:06 (B1)	06:35	07:36	07:42
	22:02	21:08	9	06:15 (B1)	19:50	18:30
11	04:41	05:35	06:07 (B1)	06:37	07:38	07:44
	22:01	21:06	5	06:12 (B1)	19:47	18:27
12	04:42	05:37		06:39	07:40	07:46
	22:00	21:04		19:45	18:25	16:13
13	04:43	05:39		06:41	07:42	07:49
	21:59	21:02		19:42	18:22	16:11
14	04:45	05:41		06:43	07:44	07:51
	21:58	20:59		19:39	18:19	16:09
15	04:46	05:43		06:45	07:46	07:53
	21:57	20:57		19:37	18:17	16:08
16	04:48	05:45		06:47	07:48	07:55
	21:55	20:54		19:34	18:14	16:06
17	04:49	05:47		06:49	07:50	07:57
	21:54	20:52		19:31	18:12	16:04
18	04:51	05:49		06:51	07:52	07:59
	21:52	20:50		19:29	18:09	16:02
19	04:52	05:51		06:53	07:55	08:01
	21:51	20:47		19:26	18:07	16:01
20	04:54	05:53		06:55	07:57	08:03
	21:49	20:45		19:23	18:04	15:59
21	04:56	05:55		06:57	07:59	08:05
	21:48	20:42		19:20	18:02	15:58
22	04:57	05:57		06:59	08:01	08:07
	21:46	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	17:57	15:55
24	05:01	06:01		07:03	08:05	08:11
	21:43	20:35		19:12	17:55	15:53
25	05:03	06:03		07:05	08:07	08:13
	21:41	20:32		19:10	16:52	15:52
26	05:04	06:05		07:07	08:15	08:21
	21:39	20:30		19:07	16:50	15:51
27	05:06	06:07		07:09	08:17	08:23
	21:38	20:27		19:04	16:47	15:49
28	05:08	06:09		07:11	08:19	08:25
	21:36	20:24		19:02	16:45	15:48
29	05:10	06:11		07:13	08:21	08:27
	21:34	20:22		18:59	16:43	15:47
30	05:12	06:13		07:15	08:22	08:28
	21:32	20:19		18:56	16:40	15:46
31	05:14	06:15			07:20	08:26
	21:30	20:17			16:38	15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	136	186			1007	1032
Sun reduction	0.49	0.50			0.08	0.07
Oper. time red.	0.98	0.98			0.98	0.98
Wind dir. red.	0.67	0.67			0.61	0.61
Total reduction	0.31	0.32			0.05	0.04
Total, real	43	59			48	42

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vipmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (115)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

January		February		March		April		May		June	
1	08:51 15:48 45	10:28 (B4) 13:11 (B1) 16:45	08:15 16:45 30	08:59 (B2) 09:29 (B2) 17:47	07:11 17:47 19:53	06:49 19:53 06:46		05:32 20:55 05:30	07:22 (B17) 08:44 (B17) 21:53	04:36 21:53 04:34	07:36 (B17) 08:25 (B17) 07:36 (B17)
2	08:50 15:49 43	10:29 (B4) 13:11 (B1) 16:47	08:13 16:47 30	08:59 (B2) 09:29 (B2) 17:50	07:08 17:50 19:55	06:46 19:55 22	08:00 (B17) 08:22 (B17) 20:57	05:30 20:57 82	07:22 (B17) 08:44 (B17) 21:54	04:34 21:54 48	07:36 (B17) 08:24 (B17) 07:37 (B17)
3	08:50 15:50 42	10:30 (B4) 13:11 (B1) 16:49	08:11 16:49 31	08:59 (B2) 09:30 (B2) 17:52	07:06 17:52 19:57	06:43 19:57 31	07:55 (B17) 08:26 (B17) 20:59	05:28 20:59 82	07:22 (B17) 08:44 (B17) 21:55	04:33 21:55 47	07:37 (B17) 08:24 (B17) 07:38 (B17)
4	08:50 15:52 38	10:31 (B4) 13:11 (B1) 16:52	08:09 16:52 31	08:59 (B2) 09:30 (B2) 17:54	07:03 17:54 19:59	06:41 19:59 38	07:52 (B17) 08:30 (B17) 21:02	05:25 21:02 82	07:22 (B17) 08:44 (B17) 21:57	04:32 21:57 45	07:38 (B17) 08:23 (B17) 07:39 (B17)
5	08:49 15:53 33	10:35 (B4) 13:12 (B1) 16:54	08:07 16:54 31	09:00 (B2) 09:31 (B2) 17:56	07:00 17:56 20:01	06:38 20:01 43	07:49 (B17) 08:32 (B17) 21:04	05:23 21:04 80	07:23 (B17) 08:43 (B17) 21:58	04:31 21:58 44	07:39 (B17) 08:23 (B17) 07:40 (B17)
6	08:49 15:55 29	12:42 (B1) 13:11 (B1) 16:56	08:05 16:56 31	08:59 (B2) 09:30 (B2) 17:58	06:58 17:58 20:03	06:35 20:03 48	05:21 08:35 (B17) 21:06	05:21 21:06 80	07:23 (B17) 08:43 (B17) 21:59	04:31 21:59 42	07:40 (B17) 08:22 (B17) 07:40 (B17)
7	08:48 15:56 28	12:43 (B1) 13:11 (B1) 16:58	08:03 16:58 30	09:00 (B2) 09:30 (B2) 18:00	06:55 18:00 20:05	06:33 20:05 52	05:19 07:44 (B17) 21:08	05:19 21:08 79	07:23 (B17) 08:42 (B17) 22:00	04:30 22:00 41	07:40 (B17) 08:21 (B17) 07:42 (B17)
8	08:48 15:58 27	12:44 (B1) 13:11 (B1) 17:01	08:00 17:01 30	09:00 (B2) 09:30 (B2) 18:02	06:53 18:02 20:07	06:30 20:07 56	05:17 08:37 (B17) 21:10	05:17 21:10 79	07:23 (B17) 08:42 (B17) 22:01	04:29 22:01 39	07:42 (B17) 08:21 (B17) 07:43 (B17)
9	08:47 15:59 26	12:45 (B1) 13:11 (B1) 17:03	07:58 17:03 29	09:00 (B2) 09:29 (B2) 18:05	06:50 18:05 20:10	06:27 20:10 59	05:14 08:39 (B17) 21:12	05:14 21:12 78	07:23 (B17) 08:41 (B17) 22:02	04:28 22:02 38	07:42 (B17) 08:20 (B17) 07:43 (B17)
10	08:46 16:01 25	12:46 (B1) 13:11 (B1) 17:05	07:56 17:05 28	09:01 (B2) 09:29 (B2) 18:07	06:47 18:07 20:12	06:25 20:12 62	05:12 08:40 (B17) 21:14	05:12 21:14 77	07:23 (B17) 08:40 (B17) 22:03	04:28 22:03 37	07:43 (B17) 08:20 (B17) 07:44 (B17)
11	08:45 16:03 23	12:47 (B1) 13:10 (B1) 17:07	07:54 17:07 26	09:03 (B2) 09:29 (B2) 18:09	06:45 18:09 20:14	06:22 20:14 64	05:10 08:41 (B17) 21:16	05:10 21:16 77	07:23 (B17) 08:40 (B17) 22:04	04:27 22:04 36	07:43 (B17) 08:19 (B17) 07:44 (B17)
12	08:44 16:04 21	12:49 (B1) 13:10 (B1) 17:10	07:52 17:10 24	09:03 (B2) 09:27 (B2) 18:11	06:42 18:11 20:16	06:20 20:16 67	05:08 08:42 (B17) 21:18	05:08 21:18 76	07:23 (B17) 08:39 (B17) 22:05	04:27 22:05 35	07:44 (B17) 08:19 (B17) 07:45 (B17)
13	08:43 16:06 19	12:50 (B1) 13:09 (B1) 17:12	07:49 17:12 21	09:05 (B2) 09:26 (B2) 18:13	06:39 18:13 20:18	06:17 20:18 69	05:06 08:43 (B17) 21:20	05:06 21:20 74	07:24 (B17) 08:38 (B17) 22:06	04:26 22:06 34	07:45 (B17) 08:19 (B17) 07:45 (B17)
14	08:42 16:08 16	12:52 (B1) 13:08 (B1) 17:14	07:47 17:14 18	09:06 (B2) 09:24 (B2) 18:15	06:37 18:15 20:20	06:14 20:20 71	05:04 08:43 (B17) 21:22	05:04 21:22 73	07:24 (B17) 08:37 (B17) 22:07	04:26 22:07 33	07:45 (B17) 08:18 (B17) 07:46 (B17)
15	08:41 16:10 12	12:55 (B1) 13:07 (B1) 17:16	07:45 17:16 14	09:08 (B2) 09:22 (B2) 18:17	06:34 18:17 20:22	06:12 20:22 72	05:02 08:44 (B17) 21:24	05:02 21:24 72	07:25 (B17) 08:37 (B17) 22:07	04:25 22:07 31	07:46 (B17) 08:17 (B17) 07:47 (B17)
16	08:40 16:12 3	12:59 (B1) 13:02 (B1) 17:19	07:43 17:19 3	09:13 (B2) 09:16 (B2) 18:19	06:31 18:19 20:24	06:09 20:24 74	05:00 07:30 (B17) 21:25	05:00 21:25 71	07:25 (B17) 08:36 (B17) 22:08	04:25 22:08 30	07:47 (B17) 08:17 (B17) 07:47 (B17)
17	08:39 16:13 18	07:40 17:21 07:38	07:40 17:21 07:38	06:29 18:22 06:26	06:07 18:22 06:04	06:07 20:26 75	04:59 08:45 (B17) 21:27	04:59 21:27 70	07:25 (B17) 08:35 (B17) 22:08	04:25 22:08 30	07:47 (B17) 08:17 (B17) 07:48 (B17)
18	08:37 16:15 19	07:35 17:23 07:35	07:35 17:23 07:35	06:26 18:24 06:23	06:04 18:24 06:02	06:04 20:28 77	04:57 08:45 (B17) 21:29	04:57 21:29 69	07:26 (B17) 08:35 (B17) 22:09	04:25 22:09 29	07:48 (B17) 08:17 (B17) 07:48 (B17)
19	08:36 16:17 20	07:33 17:25 07:33	07:33 17:25 07:33	06:23 18:26 06:21	06:02 18:26 05:59	06:02 20:30 78	04:55 08:46 (B17) 21:31	04:55 21:31 68	07:26 (B17) 08:34 (B17) 22:09	04:25 22:09 29	07:48 (B17) 08:17 (B17) 07:49 (B17)
20	08:35 16:19 21	07:32 17:28 07:31	07:32 17:28 07:31	06:21 18:28 06:18	05:59 18:28 05:56	05:59 20:32 79	04:53 08:45 (B17) 21:33	04:53 21:33 67	07:27 (B17) 08:34 (B17) 22:10	04:25 22:10 29	07:48 (B17) 08:17 (B17) 07:48 (B17)
21	08:33 16:21 22	07:30 17:30 07:28	07:30 17:30 07:28	06:18 18:30 06:15	05:56 18:30 05:54	05:56 20:35 80	04:51 08:46 (B17) 21:35	04:51 21:35 65	07:28 (B17) 08:33 (B17) 22:10	04:25 22:10 29	07:48 (B17) 08:17 (B17) 07:49 (B17)
22	08:32 16:23 7	07:28 09:08 (B2) 17:32	07:28 17:32 07:26	06:15 18:32 06:13	05:54 18:32 05:52	05:54 20:37 80	04:50 08:45 (B17) 21:36	04:50 21:36 64	07:29 (B17) 08:33 (B17) 22:10	04:25 22:10 29	07:49 (B17) 08:18 (B17) 07:49 (B17)
23	08:30 16:26 13	09:05 (B2) 09:18 (B2) 17:34	07:26 17:34 07:23	06:13 18:34 06:10	05:52 18:34 05:49	05:52 20:39 81	04:48 08:46 (B17) 21:38	04:48 21:38 62	07:29 (B17) 08:31 (B17) 22:10	04:25 22:10 29	07:49 (B17) 08:18 (B17) 07:50 (B17)
24	08:29 16:28 16	09:05 (B2) 09:21 (B2) 17:36	07:23 17:36 07:21	06:10 18:36 06:07	05:49 18:36 05:47	05:49 20:41 81	04:46 08:46 (B17) 21:40	04:46 21:40 61	07:30 (B17) 08:31 (B17) 22:10	04:26 22:10 29	07:49 (B17) 08:18 (B17) 07:50 (B17)
25	08:27 16:30 20	09:03 (B2) 09:23 (B2) 17:39	07:21 17:39 07:18	06:07 18:38 06:05	05:47 18:38 05:44	05:47 20:43 82	04:45 08:45 (B17) 21:42	04:45 21:42 59	07:31 (B17) 08:30 (B17) 22:10	04:26 22:10 29	07:50 (B17) 08:19 (B17) 07:49 (B17)
26	08:25 16:32 22	09:02 (B2) 09:24 (B2) 17:41	07:18 17:41 07:16	06:05 18:40 06:02	05:44 18:40 05:42	05:44 20:45 82	04:43 08:45 (B17) 21:43	04:43 21:43 58	07:31 (B17) 08:29 (B17) 22:10	04:27 22:10 30	07:49 (B17) 08:19 (B17) 07:49 (B17)
27	08:24 16:34 23	09:02 (B2) 09:25 (B2) 17:43	07:16 17:43 07:13	06:02 18:42 05:59	05:42 18:42 05:39	05:42 20:47 82	04:42 08:45 (B17) 21:45	04:42 21:45 56	07:32 (B17) 08:28 (B17) 22:10	04:27 22:10 31	07:49 (B17) 08:20 (B17) 07:49 (B17)
28	08:22 16:36 26	09:01 (B2) 09:27 (B2) 17:45	07:13 17:45 07:11	05:59 18:45 06:57	05:39 18:45 05:37	05:39 20:49 83	04:41 08:46 (B17) 21:47	04:41 21:47 56	07:32 (B17) 08:28 (B17) 22:10	04:28 22:10 32	07:49 (B17) 08:21 (B17) 07:49 (B17)
29	08:20 16:38 27	09:00 (B2) 09:27 (B2) 17:47	07:11 17:47 07:14	06:57 19:47 06:54	05:37 19:47 05:35	05:37 20:51 83	04:39 08:45 (B17) 21:48	04:39 21:48 54	07:33 (B17) 08:27 (B17) 22:10	04:28 22:10 33	07:49 (B17) 08:22 (B17) 07:48 (B17)
30	08:18 16:41 28	09:00 (B2) 09:28 (B2) 17:49	07:14 17:49 07:17	06:54 19:49 06:51	05:35 19:49 05:33	05:35 20:53 82	04:38 08:44 (B17) 21:50	04:38 21:50 53	07:34 (B17) 08:27 (B17) 22:09	04:29 22:09 34	07:48 (B17) 08:22 (B17) 07:48 (B17)
31	08:17 16:43 29	09:00 (B2) 09:29 (B2) 17:50	07:17 17:50 07:23	06:51 19:51 06:48	05:33 19:51 05:30	05:33 20:55 81	04:37 21:51 04:37	04:37 21:51 51	07:35 (B17) 08:26 (B17) 22:09	04:29 22:09 34	07:48 (B17) 08:22 (B17) 07:48 (B17)
Potential sun hours	235		266		366	426		508		529	
Total, worst case	641		407			1953		2157		1051	
Sun reduction	0.13		0.20			0.50		0.57		0.56	
Oper. time red.	0.98		0.98			0.98		0.98		0.98	
Wind dir. red.	0.62		0.59			0.65		0.65		0.65	
Total reduction	0.08		0.11			0.32		0.36		0.35	
Total, real	51		47			616		773		370	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Vipmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (115)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

July		August		September		October		November		December	
1	04:30	07:48 (B17)	05:15	07:34 (B17)	06:17	07:36 (B17)	07:17	07:22	08:31 (B2)	08:24	12:29 (B1)
2	22:09	35	08:23 (B17)	21:28	76	08:50 (B17)	20:14	64	08:40 (B17)	18:53	12:53 (B1)
3	04:31	07:48 (B17)	05:17	07:34 (B17)	06:19	07:37 (B17)	07:19	07:25	28	08:59 (B2)	15:45
4	22:09	36	08:24 (B17)	21:26	76	08:50 (B17)	20:11	62	08:39 (B17)	18:51	12:29 (B1)
5	04:31	07:47 (B17)	05:19	07:33 (B17)	06:21	07:38 (B17)	07:21	07:27	29	08:59 (B2)	15:44
6	22:08	38	08:25 (B17)	21:24	78	08:51 (B17)	20:09	59	08:37 (B17)	18:48	12:54 (B1)
7	04:32	07:47 (B17)	05:21	07:32 (B17)	06:23	07:38 (B17)	07:23	07:29	30	09:00 (B2)	15:43
8	22:07	39	08:26 (B17)	21:22	79	08:51 (B17)	20:06	56	08:34 (B17)	18:45	12:54 (B1)
9	04:33	07:47 (B17)	05:23	07:32 (B17)	06:25	07:40 (B17)	07:25	07:31	31	09:00 (B2)	15:42
10	22:07	40	08:27 (B17)	21:19	79	08:51 (B17)	20:03	52	08:32 (B17)	18:43	12:55 (B1)
11	04:34	07:46 (B17)	05:25	07:32 (B17)	06:27	07:42 (B17)	07:27	07:33	31	09:00 (B2)	15:41
12	22:06	42	08:28 (B17)	21:17	80	08:52 (B17)	20:01	48	08:30 (B17)	18:40	12:56 (B1)
13	04:35	07:46 (B17)	05:27	07:32 (B17)	06:29	07:44 (B17)	07:29	07:36	32	09:01 (B2)	15:41
14	22:05	43	08:29 (B17)	21:15	80	08:52 (B17)	19:58	43	08:27 (B17)	18:38	12:57 (B1)
15	04:37	07:45 (B17)	05:29	07:32 (B17)	06:31	07:46 (B17)	07:31	07:38	31	09:00 (B2)	15:40
16	22:04	45	08:30 (B17)	21:13	81	08:53 (B17)	19:55	38	08:24 (B17)	18:35	12:27 (B1)
17	04:38	07:45 (B17)	05:31	07:32 (B17)	06:33	07:49 (B17)	07:34	07:38	31	09:01 (B2)	15:39
18	22:03	46	08:31 (B17)	21:11	81	08:53 (B17)	19:53	32	08:21 (B17)	18:32	12:58 (B1)
19	04:39	07:44 (B17)	05:33	07:31 (B17)	06:35	07:53 (B17)	07:36	07:42	30	09:00 (B2)	15:39
20	22:02	47	08:31 (B17)	21:08	81	08:52 (B17)	19:50	23	08:16 (B17)	18:30	10:18 (B4)
21	04:40	07:44 (B17)	05:35	07:31 (B17)	06:37	08:01 (B17)	07:38	07:44	30	09:00 (B2)	15:39
22	22:01	48	08:32 (B17)	21:06	82	08:53 (B17)	19:47	6	08:07 (B17)	18:27	12:59 (B1)
23	04:42	07:43 (B17)	05:37	07:31 (B17)	06:39	07:40	07:40	16:15	29	09:00 (B2)	15:38
24	22:00	50	08:33 (B17)	21:04	82	08:53 (B17)	19:45	18:24	28	08:59 (B2)	15:38
25	04:43	07:43 (B17)	05:39	07:31 (B17)	06:41	07:42	07:42	07:46	27	08:59 (B2)	15:38
26	21:59	52	08:35 (B17)	21:01	82	08:53 (B17)	19:42	18:22	27	08:59 (B2)	15:38
27	04:45	07:42 (B17)	05:41	07:31 (B17)	06:43	07:44	07:44	07:51	25	08:58 (B2)	15:38
28	21:58	53	08:35 (B17)	20:59	82	08:53 (B17)	19:39	18:19	25	08:58 (B2)	15:38
29	04:46	07:41 (B17)	05:43	07:31 (B17)	06:45	07:46	07:46	07:53	24	08:57 (B2)	15:38
30	21:57	55	08:36 (B17)	20:57	82	08:53 (B17)	19:37	18:17	24	08:57 (B2)	15:38
31	04:47	07:42 (B17)	05:45	07:30 (B17)	06:47	07:48	07:48	07:55	22	08:57 (B2)	15:38
32	21:55	56	08:38 (B17)	20:54	82	08:52 (B17)	19:34	18:14	22	08:57 (B2)	15:38
33	04:49	07:41 (B17)	05:47	07:30 (B17)	06:49	07:50	07:50	07:57	20	08:56 (B2)	15:38
34	21:54	57	08:38 (B17)	20:52	82	08:52 (B17)	19:31	18:12	20	08:56 (B2)	15:38
35	04:51	07:40 (B17)	05:49	07:30 (B17)	06:51	07:52	07:52	07:59	16	08:55 (B2)	15:38
36	21:52	59	08:39 (B17)	20:49	82	08:52 (B17)	19:28	18:09	16	08:55 (B2)	15:38
37	04:52	07:40 (B17)	05:51	07:30 (B17)	06:53	07:54	07:54	08:01	13	08:53 (B2)	15:38
38	21:51	60	08:40 (B17)	20:47	81	08:51 (B17)	19:26	18:07	13	08:53 (B2)	15:38
39	04:54	07:39 (B17)	05:53	07:30 (B17)	06:55	07:57	07:57	08:03	7	08:50 (B2)	15:38
40	21:49	62	08:41 (B17)	20:45	81	08:51 (B17)	19:23	18:04	7	08:50 (B2)	15:38
41	04:56	07:39 (B17)	05:55	07:31 (B17)	06:57	07:59	07:59	08:05	15	08:51 (B2)	15:38
42	21:48	63	08:42 (B17)	20:42	80	08:51 (B17)	19:20	18:02	15	08:51 (B2)	15:38
43	04:57	07:39 (B17)	05:57	07:31 (B17)	06:59	08:01	08:01	08:07	15	08:51 (B2)	15:38
44	21:46	64	08:43 (B17)	20:40	79	08:50 (B17)	19:18	17:59	15	08:51 (B2)	15:38
45	04:59	07:38 (B17)	05:59	07:31 (B17)	07:01	08:03	08:03	08:09	15	08:51 (B2)	15:38
46	21:45	65	08:43 (B17)	20:37	79	08:50 (B17)	19:15	17:57	15	08:51 (B2)	15:38
47	05:01	07:38 (B17)	06:01	07:32 (B17)	07:03	08:05	08:05	08:11	15	08:51 (B2)	15:38
48	21:43	67	08:45 (B17)	20:35	77	08:49 (B17)	19:12	17:54	15	08:51 (B2)	15:38
49	05:02	07:36 (B17)	06:03	07:31 (B17)	07:05	07:07	07:07	07:13	15	08:51 (B2)	15:38
50	21:41	69	08:45 (B17)	20:32	77	08:48 (B17)	19:10	16:52	15	08:51 (B2)	15:38
51	05:04	07:36 (B17)	06:05	07:31 (B17)	07:07	07:09	07:09	07:15	15	08:51 (B2)	15:38
52	21:39	70	08:46 (B17)	20:29	76	08:47 (B17)	19:07	16:50	8	08:49 (B2)	15:50
53	05:06	07:36 (B17)	06:07	07:32 (B17)	07:09	07:12	07:12	07:18	2	12:38 (B1)	08:51
54	21:38	71	08:47 (B17)	20:27	74	08:46 (B17)	19:04	16:47	15	08:52 (B2)	15:49
55	05:08	07:35 (B17)	06:09	07:33 (B17)	07:11	07:14	07:14	07:20	11	12:45 (B1)	08:51
56	21:36	72	08:47 (B17)	20:24	72	08:45 (B17)	19:01	16:45	19	08:54 (B2)	15:48
57	05:10	07:35 (B17)	06:11	07:33 (B17)	07:13	07:16	07:16	07:22	16	12:48 (B1)	08:51
58	21:34	73	08:48 (B17)	20:22	71	08:44 (B17)	18:59	16:43	22	08:56 (B2)	15:47
59	05:12	07:35 (B17)	06:13	07:34 (B17)	07:15	07:18	07:18	07:24	19	12:50 (B1)	08:51
60	21:32	74	08:49 (B17)	20:19	69	08:43 (B17)	18:56	16:40	25	08:57 (B2)	15:46
61	05:14	07:34 (B17)	06:15	07:35 (B17)	07:17	07:20	07:20	07:26	21	12:51 (B1)	08:51
62	21:30	75	08:49 (B17)	20:17	66	08:41 (B17)	18:54	16:38	26	08:57 (B2)	15:46
Potential sun hours	529		469		385		324		247		216
Total, worst case	1726		2429		483		115		583		1369
Sun reduction	0.49		0.50		0.43		0.26		0.08		0.07
Oper. time red.	0.98		0.98		0.98		0.98		0.98		0.98
Wind dir. red.	0.65		0.65		0.65		0.59		0.59		0.63
Total reduction	0.31		0.31		0.27		0.15		0.05		0.04
Total, real	537		763		130		17		28		59

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Zalumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (178)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:08 (B24) 05:09 (B24)	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08		05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08		05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:56	04:33 22:07		05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07		05:24 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06		05:26 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:05	05:19 21:08	04:30 22:00	04:36 22:05		05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04		05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03		05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:06	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02		05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	05:04 (B24) 05:05 (B24)	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	05:03 (B24) 05:05 (B24)	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	05:03 (B24) 05:06 (B24)	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:06	05:03 (B24) 05:07 (B24)	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:23	04:26 22:07	05:03 (B24) 05:08 (B24)	04:47 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	04:26 22:08	05:03 (B24) 05:08 (B24)	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:44 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	05:02 (B24) 05:08 (B24)	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	05:02 (B24) 05:08 (B24)	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	05:03 (B24) 05:09 (B24)	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	05:03 (B24) 05:09 (B24)	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	05:03 (B24) 05:10 (B24)	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	05:03 (B24) 05:10 (B24)	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:03 (B24) 05:09 (B24)	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	05:04 (B24) 05:10 (B24)	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	04:45 21:42	04:27 22:10	05:04 (B24) 05:10 (B24)	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 (B24) 05:10 (B24)	05:05 21:39	06:05 20:29	07:07 19:07	07:10 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:05 (B24) 05:10 (B24)	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	05:06 (B24) 05:10 (B24)	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	05:06 (B24) 05:09 (B24)	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:30 22:09	05:07 (B24) 05:10 (B24)	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:51 19:51		04:37 21:51			05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529		469	384	324	248	216
Total, worst case						96	1						
Sun reduction						0.56	0.49						
Oper. time red.						0.98	0.98						
Wind dir. red.						0.66	0.66						
Total reduction						0.36	0.32						
Total, real						35	0						

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Zemturi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (39)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:54	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Zemites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (194)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:33	08:25 15:44
3	08:50 15:50	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:15	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:46
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ziedini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (111)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January		February		March	April	May	June	July	August	September	October	November	December
1	08:51 15:48 18	09:36 (B22) 09:54 (B22) 16:45	08:15 10:05 (B22) 17:48	21	09:44 (B22) 10:05 (B22) 17:48	07:11 17:48 19:53	06:49 20:55 20:55	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 20:14 18:54	07:17 20:14 16:36	07:23 16:36 15:45
2	08:51 15:49 19	09:36 (B22) 09:55 (B22) 16:47	08:13 10:03 (B22) 17:47	17	09:46 (B22) 10:03 (B22) 17:50	07:08 17:50 19:55	06:46 20:58 20:58	05:30 21:54 22:09	04:35 21:26 20:11	04:31 20:11 18:51	05:18 20:11 16:34	06:19 20:11 16:34	07:19 18:51 16:34	07:25 16:34 15:44
3	08:50 15:51 20	09:36 (B22) 09:56 (B22) 16:50	08:11 10:01 (B22) 17:50	12	09:49 (B22) 10:01 (B22) 17:52	07:06 17:52 19:57	06:43 20:58 21:00	05:28 21:00 22:08	04:34 21:55 22:08	04:32 21:55 22:08	05:19 21:24 20:09	06:21 20:09 18:48	07:21 18:48 16:32	07:27 16:32 15:43
4	08:50 15:52 21	09:36 (B22) 09:56 (B22) 16:52	08:09 10:01 (B22) 17:54		09:49 (B22) 10:01 (B22) 17:54	07:03 17:54 19:59	06:41 20:56 21:02	05:26 21:02 22:07	04:33 21:57 22:07	04:33 21:57 22:07	05:21 21:22 20:06	06:23 20:06 18:46	07:23 18:46 16:29	07:29 16:29 15:42
5	08:49 15:53 22	09:36 (B22) 09:56 (B22) 16:54	08:07 10:01 (B22) 17:56		09:49 (B22) 10:01 (B22) 17:56	07:01 17:56 19:57	06:38 20:57 21:04	05:23 21:04 22:07	04:32 21:58 22:07	04:34 21:20 20:03	05:23 20:03 18:43	06:25 20:03 18:43	07:25 18:43 16:27	07:31 16:27 15:42
6	08:49 15:55 23	09:36 (B22) 09:56 (B22) 16:56	08:05 10:01 (B22) 17:58		09:49 (B22) 10:01 (B22) 17:58	07:01 17:58 19:58	06:35 20:58 21:06	05:21 21:06 21:59	04:31 21:59 22:06	04:35 21:27 20:01	05:25 20:01 18:40	06:27 20:01 16:25	07:27 18:40 16:25	07:33 16:25 15:41
7	08:48 15:56 24	09:36 (B22) 09:56 (B22) 16:59	08:03 10:01 (B22) 17:59		09:49 (B22) 10:01 (B22) 17:59	07:01 17:59 19:59	06:33 20:59 21:08	05:19 21:08 22:00	04:36 21:58 22:05	04:36 21:27 20:01	05:27 20:01 18:38	06:29 20:01 18:38	07:30 18:38 16:23	07:36 16:23 15:40
8	08:48 15:58 25	09:36 (B22) 09:56 (B22) 17:01	08:01 10:01 (B22) 17:01		09:49 (B22) 10:01 (B22) 17:01	07:01 17:01 19:59	06:30 20:59 21:10	05:17 21:10 22:01	04:37 21:24 22:04	05:29 21:13 19:55	06:31 21:13 18:35	07:32 21:13 16:21	07:38 16:21 12	07:38 15:40 21
9	08:47 15:59 26	09:36 (B22) 09:56 (B22) 17:03	07:58 10:01 (B22) 17:03		09:49 (B22) 10:01 (B22) 17:03	07:01 17:03 19:59	06:28 20:59 21:12	05:15 21:12 22:02	04:38 21:22 22:03	05:31 21:11 19:53	06:33 18:32 16:19	07:34 16:19 17	07:40 16:19 31	07:40 15:39 20
10	08:46 16:01 27	09:36 (B22) 10:02 (B22) 17:05	07:56 10:01 (B22) 17:05		09:49 (B22) 10:01 (B22) 17:05	07:01 17:05 19:59	06:25 20:59 21:14	05:13 21:14 22:03	04:39 21:22 22:02	05:33 21:08 19:50	06:35 18:30 16:17	07:36 16:17 20	07:42 16:17 31	07:42 15:39 19
11	08:45 16:03 28	09:36 (B22) 10:03 (B22) 17:08	07:54 10:01 (B22) 17:08		09:49 (B22) 10:01 (B22) 17:08	07:01 17:08 19:59	06:22 20:59 21:16	05:11 21:16 22:04	04:41 22:01 21:06	05:08 21:06 19:47	06:37 18:27 16:15	07:38 16:15 22	07:44 16:15 31	07:44 15:38 18
12	08:44 16:04 28	09:36 (B22) 10:04 (B22) 17:10	07:52 10:01 (B22) 17:10		09:49 (B22) 10:01 (B22) 17:10	07:01 17:10 19:59	06:20 20:58 21:18	05:08 21:18 22:05	04:42 22:01 21:45	05:37 21:45 18:25	06:39 18:25 16:13	07:40 16:13 25	07:46 16:13 31	07:46 15:38 17
13	08:43 16:06 29	09:36 (B22) 10:04 (B22) 17:12	07:50 10:01 (B22) 17:12		09:49 (B22) 10:01 (B22) 17:12	07:01 17:12 19:59	06:20 20:58 21:20	05:04 21:20 22:06	04:43 21:59 21:02	05:38 21:02 19:42	06:40 18:22 16:11	07:41 16:11 27	07:46 16:11 31	07:46 15:38 16
14	08:42 16:08 30	09:36 (B22) 10:05 (B22) 17:14	07:47 10:01 (B22) 17:14		09:49 (B22) 10:01 (B22) 17:14	07:01 17:14 19:59	06:15 20:59 21:22	05:04 21:22 22:07	04:45 21:58 20:59	05:41 20:59 19:39	06:43 18:20 16:09	07:44 16:09 28	07:51 16:09 31	07:51 15:38 15
15	08:41 16:10 30	09:36 (B22) 10:06 (B22) 17:17	07:45 10:01 (B22) 17:17		09:49 (B22) 10:01 (B22) 17:17	07:01 17:17 19:59	06:12 20:59 21:24	05:03 21:24 22:07	04:46 21:57 20:57	05:43 20:57 19:37	06:45 18:17 16:08	07:46 16:08 29	07:53 16:08 31	07:53 15:38 14
16	08:40 16:12 30	09:36 (B22) 10:06 (B22) 17:19	07:43 10:01 (B22) 17:19		09:49 (B22) 10:01 (B22) 17:19	07:01 17:19 19:59	06:09 20:59 21:26	05:01 21:26 22:08	04:48 21:55 20:54	05:45 20:54 19:34	06:47 18:14 16:06	07:48 16:06 30	07:55 16:06 31	07:55 15:38 13
17	08:39 16:14 31	09:36 (B22) 10:07 (B22) 17:21	07:40 10:01 (B22) 17:21		09:49 (B22) 10:01 (B22) 17:21	07:01 17:21 19:59	06:07 20:59 21:27	04:59 21:27 22:09	04:49 21:54 20:52	05:47 20:52 19:31	06:49 18:12 16:04	07:50 16:04 30	07:57 16:04 31	07:57 15:38 12
18	08:38 16:16 31	09:36 (B22) 10:07 (B22) 17:23	07:38 10:01 (B22) 17:23		09:49 (B22) 10:01 (B22) 17:23	07:01 17:23 19:59	06:04 20:59 21:29	04:57 21:29 22:09	04:51 21:52 20:50	05:49 20:50 19:29	06:51 18:09 16:02	07:52 16:02 31	07:59 16:02 31	07:59 15:38 11
19	08:36 16:18 31	09:36 (B22) 10:07 (B22) 17:26	07:36 10:01 (B22) 17:26		09:49 (B22) 10:01 (B22) 17:26	07:01 17:26 19:59	06:02 20:59 21:31	04:55 21:31 22:09	04:52 21:57 20:57	05:51 20:57 18:57	06:53 18:05 16:01	07:55 16:01 31	08:01 16:01 31	08:01 15:38 11
20	08:35 16:20 31	09:36 (B22) 10:08 (B22) 17:28	07:33 10:01 (B22) 17:28		09:49 (B22) 10:01 (B22) 17:28	07:01 17:28 19:59	06:01 20:59 21:33	04:53 21:33 22:10	04:54 21:57 20:57	05:51 20:57 18:57	06:54 18:05 16:01	07:57 16:01 31	08:03 16:01 31	08:03 15:38 10
21	08:33 16:22 31	09:36 (B22) 10:08 (B22) 17:30	07:31 10:01 (B22) 17:30		09:49 (B22) 10:01 (B22) 17:30	07:01 17:30 19:59	06:01 20:59 21:35	04:52 21:35 22:10	04:56 21:58 20:57	05:45 20:57 19:23	06:57 18:04 15:59	07:59 15:59 31	08:05 15:59 31	08:05 15:38 10
22	08:32 16:24 31	09:36 (B22) 10:08 (B22) 17:32	07:28 10:01 (B22) 17:32		09:49 (B22) 10:01 (B22) 17:32	07:01 17:32 19:59	06:01 20:59 21:37	04:52 21:37 22:10	04:57 21:57 20:57	05:47 20:57 19:20	06:59 18:02 15:58	08:01 15:58 31	08:07 15:58 31	08:07 15:38 10
23	08:30 16:24 31	09:36 (B22) 10:08 (B22) 17:34	07:26 10:01 (B22) 17:34		09:49 (B22) 10:01 (B22) 17:34	07:01 17:34 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
24	08:29 16:26 31	09:36 (B22) 10:09 (B22) 17:37	07:23 10:01 (B22) 17:37		09:49 (B22) 10:01 (B22) 17:37	07:01 17:37 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
25	08:27 16:30 30	09:36 (B22) 10:09 (B22) 17:39	07:21 10:01 (B22) 17:39		09:49 (B22) 10:01 (B22) 17:39	07:01 17:39 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
26	08:26 16:32 30	09:36 (B22) 10:09 (B22) 17:41	07:18 10:01 (B22) 17:41		09:49 (B22) 10:01 (B22) 17:41	07:01 17:41 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
27	08:24 16:34 29	09:36 (B22) 10:09 (B22) 17:43	07:16 10:01 (B22) 17:43		09:49 (B22) 10:01 (B22) 17:43	07:01 17:43 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
28	08:22 16:36 27	09:36 (B22) 10:08 (B22) 17:45	07:13 10:01 (B22) 17:45		09:49 (B22) 10:01 (B22) 17:45	07:01 17:45 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
29	08:20 16:39 27	09:36 (B22) 10:08 (B22) 17:47	07:11 10:01 (B22) 17:47		09:49 (B22) 10:01 (B22) 17:47	07:01 17:47 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
30	08:19 16:41 24	09:36 (B22) 10:07 (B22) 17:49	07:09 10:01 (B22) 17:49		09:49 (B22) 10:01 (B22) 17:49	07:01 17:49 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
31	08:17 16:43 23	09:36 (B22) 10:07 (B22) 17:51	07:07 10:01 (B22) 17:51		09:49 (B22) 10:01 (B22) 17:51	07:01 17:51 19:59	06:01 20:59 21:40	04:48 21:40 22:16	04:59 21:57 20:57	05:59 20:57 19:18	07:01 17:59 15:56	08:03 15:56 31	08:09 15:56 31	08:09 15:38 10
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216	216	216
Total, worst case	838	50	50									636	510	510
Sun reduction	0.13	0.20	0.20									0.08	0.07	0.07
Oper. time red.	0.98	0.98	0.98									0.98	0.98	0.98
Wind dir. red.	0.61	0.61	0.61									0.61	0.61	0.61
Total reduction	0.08	0.12	0.12									0.05	0.04	0.04
Total, real	66	6	6									31	21	21

Table layout: For each day in each month the following matrix apply

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ziemeli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (125)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	19	07:46 (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	12	07:50 (B14) 08:02 (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	7	07:52 (B14) 07:59 (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	1	07:54 (B14) 07:55 (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		06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:33			07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	5	07:21 (B14) 20:10	05:13 21:12	04:28 22:02	04:40 22:03	05:33 21:11	06:35 19:53		07:36 18:33			07:42 16:19	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	10	07:13 (B14) 20:12	05:13 21:14	04:28 22:03	04:41 22:02	05:35 21:08	06:37 19:50		07:38 18:30			07:44 16:17	08:39 15:39
12	08:44 16:03	07:52 17:08	06:42 18:09	14	07:10 (B14) 20:14	05:11 21:16	04:27 22:02	04:41 22:01	05:35 21:06	06:37 19:48		07:38 18:27			07:44 16:15	08:39 15:39
13	08:43 16:06	07:50 17:12	06:40 18:11	17	07:08 (B14) 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
14	08:42 16:08	07:47 17:17	06:37 18:16	21	07:05 (B14) 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
15	08:41 16:10	07:45 17:21	06:34 18:18	24	07:02 (B14) 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
16	08:40 16:12	07:43 17:23	06:32 18:18	26	07:01 (B14) 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
17	08:39 16:14	07:40 17:27	06:29 18:22	26	07:00 (B14) 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:47 20:54	06:47 19:34		07:48 18:15			07:55 16:06	08:45 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	25	07:00 (B14) 20:26	05:00 21:27	04:25 22:08	04:49 21:54	05:49 20:52	06:49 19:31		07:49 18:12			07:57 16:04	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	25	07:00 (B14) 20:28	05:00 21:29	04:25 22:09	04:53 21:52	05:51 20:50	06:53 19:29		07:55 (B14) 18:09			08:01 16:03	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	25	07:00 (B14) 20:31	05:00 21:31	04:25 22:09	04:54 21:51	05:53 20:47	06:55 19:26	6	07:51 (B14) 18:07			07:57 16:01	08:48 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30	23	07:00 (B14) 20:33	05:00 21:33	04:25 22:10	04:54 21:49	05:55 20:45	06:57 19:23	13	07:49 (B14) 18:04			07:59 15:59	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	21	07:01 (B14) 20:35	05:00 21:35	04:26 22:10	04:56 21:48	05:57 20:42	06:59 19:21	17	07:47 (B14) 18:02			08:01 15:58	08:49 15:39
23	08:30 16:26	07:26 17:35	06:13 18:34	19	07:02 (B14) 20:37	05:00 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	20	07:47 (B14) 18:00			08:01 15:56	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	14	07:04 (B14) 20:39	05:00 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	23	07:45 (B14) 17:57			08:03 15:55	08:50 15:40
25	08:27 16:30	07:21 17:39	06:08 18:39	8	07:06 (B14) 20:41	05:00 21:40	04:27 22:10	05:01 21:43	06:01 20:35	07:03 19:12	24	07:44 (B14) 17:55			08:05 15:53	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		07:07 (B14) 20:43	05:00 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	25	07:43 (B14) 17:52			08:07 15:52	08:50 15:41
27	08:24 16:34	07:16 17:43	06:02 18:43		07:08 (B14) 20:45	05:00 21:43	04:28 22:10	05:05 21:39	06:05 20:30	07:07 19:07	25	07:43 (B14) 17:10			08:08 (B14) 16:50	08:51 15:42
28	08:22 16:37	07:13 17:45	06:00 18:45		07:09 (B14) 20:47	05:00 21:45	04:28 22:10	05:06 21:38	06:07 20:27	07:09 19:04	26	07:42 (B14) 17:12			08:09 (B14) 16:48	08:51 15:43
29	08:20 16:39		06:57 19:47		07:10 (B14) 20:49	05:00 21:47	04:29 22:10	05:08 21:36	06:09 20:24	07:11 19:02	26	07:42 (B14) 17:14			08:10 (B14) 16:45	08:51 15:44
30	08:19 16:41		06:54 19:49		07:11 (B14) 20:51	05:00 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	25	07:42 (B14) 17:16			08:11 (B14) 16:43	08:51 15:45
31	08:17 16:43		06:52 19:51		07:12 (B14) 20:53	05:00 21:50	04:30 22:09	05:12 21:32	06:13 20:19	07:15 18:56	22	07:44 (B14) 17:18			08:12 (B14) 16:41	08:51 15:46
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case			303							252		54				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.98							0.98		0.98				
Wind dir. red.			0.63							0.63		0.63				
Total reduction			0.25							0.26		0.16				
Total, real			77							66		9				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

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
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:36 21:52	05:47 (B12) 20:54 (B25)	04:30 22:09	05:16 21:01 (B25)	06:17 20:49 (B24)	07:17 18:53	07:22 16:36
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	05:47 (B12) 20:55 (B25)	04:31 22:08	05:18 21:01 (B25)	06:19 20:49 (B24)	07:19 18:51	07:25 16:34
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	05:48 (B12) 20:55 (B25)	04:32 22:08	05:19 21:02 (B25)	06:21 20:48 (B24)	07:21 18:48	07:27 16:32
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	05:50 (B12) 20:55 (B25)	04:33 22:07	05:21 21:02 (B25)	06:23 20:48 (B24)	07:23 18:45	07:29 16:29
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58	05:52 (B12) 20:56 (B25)	04:34 22:06	05:23 21:02 (B25)	06:25 20:45 (B24)	07:25 18:43	07:31 16:27
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	05:50 (B12) 20:56 (B25)	04:35 22:06	05:25 21:02 (B25)	06:27 20:43 (B24)	07:27 18:40	07:33 16:25
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 21:57	05:48 (B12) 20:56 (B25)	04:30 22:05	05:27 21:02 (B25)	06:29 20:41 (B24)	07:29 18:38	07:35 16:23
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	05:46 (B12) 20:57 (B25)	04:29 22:04	05:29 21:02 (B25)	06:31 20:40 (B24)	07:31 18:35	07:38 16:21
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 22:02	05:44 (B12) 20:56 (B25)	04:29 22:03	05:31 21:02 (B25)	06:33 20:38 (B24)	07:33 18:32	07:40 16:19
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	05:42 (B12) 20:57 (B25)	04:28 22:02	05:33 21:02 (B25)	06:35 20:37	07:36 18:30	07:42 16:17
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:10 21:15	04:27 22:04	05:42 (B12) 20:57 (B25)	04:27 22:01	05:35 21:02 (B25)	06:37 20:36	07:38 18:27	07:44 16:15
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:17	04:27 22:05	05:41 (B12) 20:57 (B25)	04:27 22:00	05:37 21:03 (B25)	06:39 20:35	07:40 18:25	07:46 16:13
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	05:40 (B12) 20:58 (B25)	04:26 22:01	05:39 21:02 (B25)	06:41 20:32	07:42 18:22	07:48 16:11
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	05:41 (B12) 20:58 (B25)	04:26 22:05	05:41 21:02 (B25)	06:43 20:29	07:44 18:19	07:50 16:09
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	05:40 (B12) 20:58 (B25)	04:26 22:05	05:43 21:01 (B25)	06:45 20:27	07:53 18:17	08:43 16:08
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:01 21:25	04:25 22:08	05:40 (B12) 20:58 (B25)	04:25 22:05	05:45 21:02 (B25)	06:47 20:54	07:55 18:14	08:44 16:06
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	05:40 (B12) 20:58 (B25)	04:25 22:04	05:47 21:01 (B25)	06:49 20:52	07:50 18:12	08:45 16:04
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	05:40 (B12) 20:59 (B25)	04:25 22:05	05:49 21:02 (B25)	06:51 20:49	07:52 18:09	08:46 16:02
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	05:39 (B12) 20:45 (B25)	04:25 22:05	05:51 21:00 (B25)	06:53 20:47	08:01 18:07	08:47 16:01
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	05:40 (B12) 20:47 (B25)	04:25 22:05	05:53 21:00 (B25)	06:55 20:44	08:03 18:04	08:48 15:59
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	05:40 (B12) 20:48 (B25)	04:25 22:06	05:55 20:42	06:57 20:39	08:05 18:02	08:48 15:58
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	05:41 (B12) 20:49 (B25)	04:26 22:06	05:57 20:39	06:59 20:33	08:07 17:59	08:49 15:56
23	08:30 16:26	07:26 17:34	06:12 18:34	05:52 20:39	04:48 21:38	04:26 22:10	05:41 (B12) 20:50 (B25)	04:26 22:06	05:59 20:37	07:01 20:31	08:08 17:57	08:49 15:55
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:41 (B12) 20:50 (B25)	04:26 22:06	06:01 20:34	07:03 20:30	08:05 17:55	08:50 15:53
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:42 (B12) 20:51 (B25)	04:26 22:06	06:03 20:32	07:05 20:29	08:07 17:52	08:50 15:51
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:43 (B12) 20:52 (B25)	04:27 22:06	06:05 20:29	07:07 20:27	08:09 17:51	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	05:42 (B12) 20:52 (B25)	04:27 22:06	06:07 20:27	07:09 20:24	08:11 17:47	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) 20:53 (B25)	04:28 22:06	06:09 20:24	07:11 20:21	08:14 17:45	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	05:44 (B12) 20:53 (B25)	04:29 22:05	06:11 20:22	07:13 20:19	08:16 17:43	08:51 15:45
30	08:18 16:41	07:04 17:49	05:54 18:49	05:35 20:53	04:38 21:49	04:29 22:09	05:45 (B12) 20:54 (B25)	04:29 22:05	06:13 20:19	07:15 20:18	08:18 17:46	08:51 15:46
31	08:16 16:43	07:01 17:51	05:51 18:51	05:37 21:51	04:37 22:51	04:30 23:51	05:46 (B12) 20:54 (B25)	04:30 23:51	06:15 20:16	07:20 20:16	08:22 16:38	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case					1350	1280	1605	277				
Sun reduction					0.57	0.56	0.49	0.50				
Oper. time red.					0.98	0.98	0.98	0.98				
Wind dir. red.					0.64	0.62	0.64	0.64				
Total reduction					0.36	0.34	0.31	0.31				
Total, real					481	436	493	87				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Zvirgzdini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (24)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:43
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:57	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:08	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:20	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:37 22:03	05:31 21:11	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:07	06:24 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	08:39 15:38
12	08:44 16:04	07:52 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:04	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:12 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:50 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:46	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Zilites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (97)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January				February				March				April				May				June			
1	08:51		13:01 (B22)	08:15	07:11				06:49				05:32				06:23 (B1)	04:36						
	15:48	8	13:09 (B22)	16:45	17:47				19:53				20:55	39			07:02 (B1)	21:53						
2	08:50		13:04 (B22)	08:13	07:08				06:46				05:30				06:23 (B1)	04:35						
	15:49	4	13:08 (B22)	16:47	17:50				19:55				20:57	39			07:02 (B1)	21:54						
3	08:50			08:11	07:06				06:43				05:28				06:23 (B1)	04:34						
	15:51			16:50	17:52				19:57				21:00	39			07:02 (B1)	21:55						
4	08:50			08:09	07:03				06:41				05:26				06:23 (B1)	04:33						
	15:52			16:52	17:54				19:59				21:02	39			07:02 (B1)	21:57						
5	08:49			08:07	07:00				06:38				05:23				06:24 (B1)	04:32						
	15:53			16:54	17:56				20:01				21:04	38			07:02 (B1)	21:58						
6	08:49			08:05	06:58				06:35				05:21				06:24 (B1)	04:31						
	15:55			16:56	17:58				20:03				21:06	38			07:02 (B1)	21:59						
7	08:48			08:03	06:55				06:33				05:19				06:24 (B1)	04:30						
	15:56			16:59	18:00				20:05				21:08	37			07:01 (B1)	22:00						
8	08:48			08:00	06:53				06:30				05:17				06:24 (B1)	04:29						
	15:58			17:01	18:03				20:08				21:10	37			07:01 (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	35			07:00 (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	34			06:59 (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	34			06:59 (B1)	22:04						
12	08:44			07:52	06:42				06:20				05:08				06:26 (B1)	04:27						
	16:04			17:10	18:11				20:16				21:18	32			06:58 (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	31			06:57 (B1)	22:06						
14	08:42			07:47	06:37				06:14				05:04				06:28 (B1)	04:26						
	16:08			17:14	18:15				20:20				21:22	28			06:56 (B1)	22:07						
15	08:41			07:45	06:34			06:59 (B4)	06:12				05:02				06:29 (B1)	04:26						
	16:10			17:17	18:17	1		07:00 (B4)	20:22				21:24	26			06:55 (B1)	22:07						
16	08:40			07:43	06:32			06:57 (B4)	06:09				05:01				06:30 (B1)	04:25						
	16:12			17:19	18:20	7		07:04 (B4)	20:24				21:25	24			06:54 (B1)	22:08						
17	08:39			07:40	06:29			06:54 (B4)	06:07				04:59				06:32 (B1)	04:25						
	16:14			17:21	18:22	11		07:05 (B4)	20:26				21:27	21			06:53 (B1)	22:08						
18	08:37			07:38	06:26			06:51 (B4)	06:04			06:42 (B1)	04:57				06:33 (B1)	04:25						
	16:16			17:23	18:24	15		07:06 (B4)	20:28	7		06:49 (B1)	21:29	18			06:51 (B1)	22:09						
19	08:36			07:35	06:23			06:49 (B4)	06:02			06:38 (B1)	04:55				06:34 (B1)	04:25						
	16:18			17:25	18:26	18		07:07 (B4)	20:30	16		06:54 (B1)	21:31	15			06:49 (B1)	22:09						
20	08:35			07:33	06:21			06:46 (B4)	05:59			06:34 (B1)	04:53				06:38 (B1)	04:25						
	16:20			17:28	18:28	21		07:07 (B4)	20:33	21		06:55 (B1)	21:33	8			06:46 (B1)	22:10						
21	08:33			07:31	06:18			06:46 (B4)	05:57			06:32 (B1)	04:52					04:25						
	16:22			17:30	18:30	21		07:07 (B4)	20:35	26		06:58 (B1)	21:35					22:10						
22	08:32			07:28	06:15			06:46 (B4)	05:54			06:31 (B1)	04:50					04:25						
	16:24			17:32	18:32	21		07:07 (B4)	20:37	28		06:59 (B1)	21:36					22:10						
23	08:30			07:26	06:13			06:46 (B4)	05:52			06:29 (B1)	04:48					04:26						
	16:26			17:34	18:34	20		07:06 (B4)	20:39	31		07:00 (B1)	21:38					22:10						
24	08:29			07:23	06:10			06:46 (B4)	05:49			06:28 (B1)	04:47					04:26						
	16:28			17:37	18:36	19		07:05 (B4)	20:41	33		07:01 (B1)	21:40					22:10						
25	08:27			07:21	06:07			06:46 (B4)	05:47			06:27 (B1)	04:45					04:26						
	16:30			17:39	18:38	17		07:03 (B4)	20:43	35		07:02 (B1)	21:42					22:10						
26	08:26			07:18	06:05			06:47 (B4)	05:44			06:26 (B1)	04:44					04:27						
	16:32			17:41	18:40	16		07:03 (B4)	20:45	35		07:01 (B1)	21:43					22:10						
27	08:24			07:16	06:02			06:48 (B4)	05:42			06:25 (B1)	04:42					04:27						
	16:34			17:43	18:43	12		07:00 (B4)	20:47	37		07:02 (B1)	21:45					22:10						
28	08:22			07:13	05:59			06:52 (B4)	05:39			06:25 (B1)	04:41					04:28						
	16:36			17:45	18:45	4		06:56 (B4)	20:49	38		07:03 (B1)	21:47					22:10						
29	08:20				06:57				05:37			06:25 (B1)	04:39					04:28						
	16:39				19:47				20:51	38		07:03 (B1)	21:48					22:10						
30	08:18				06:54				05:35			06:24 (B1)	04:38					04:29						
	16:41				19:49				20:53	38		07:02 (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		12						203				612												
Sun reduction		0.13						0.41				0.57												
Oper. time red.		0.98						0.98				0.98												
Wind dir. red.		0.64						0.64				0.65												
Total reduction		0.08						0.26				0.32												
Total, real		1						52				122												

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Zilites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (97)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

July		August		September		October	November	December
1	04:30	05:16	06:36 (B1)	06:17		07:17	07:23	08:24
	22:09	21:28	32 07:08 (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	34 07:09 (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	35 07:10 (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	36 07:11 (B1)	20:06		18:46	16:29	15:42
5	04:34	05:23	06:33 (B1)	06:25		07:25	07:31	08:31
	22:07	21:19	37 07:10 (B1)	20:03		18:43	16:27	15:42
6	04:35	05:25	06:33 (B1)	06:27		07:27	07:33	08:32
	22:06	21:17	38 07:11 (B1)	20:01		18:40	16:25	15:41
7	04:36	05:27	06:33 (B1)	06:29		07:29	07:36	08:34
	22:05	21:15	38 07:11 (B1)	19:58		18:38	16:23	15:40
8	04:37	05:29	06:33 (B1)	06:31		07:32	07:38	08:35
	22:04	21:13	39 07:12 (B1)	19:55		18:35	16:21	15:40
9	04:38	05:31	06:33 (B1)	06:33		07:34	07:40	08:37
	22:03	21:11	39 07:12 (B1)	19:53		18:32	16:19	15:39
10	04:39	05:33	06:32 (B1)	06:35		07:36	07:42	08:38
	22:02	21:08	39 07:11 (B1)	19:50		18:30	16:17	15:39
11	04:41	05:35	06:32 (B1)	06:37		07:38	07:44	08:39
	22:01	21:06	39 07:11 (B1)	19:47		18:27	16:15	15:38
12	04:42	05:37	06:32 (B1)	06:39		07:40	07:46	08:40
	22:00	21:04	39 07:11 (B1)	19:45		18:25	16:13	15:38
13	04:43	05:39	06:32 (B1)	06:41		07:42	07:49	08:42
	21:59	21:01	39 07:11 (B1)	19:42		18:22	16:11	15:38
14	04:45	05:41	06:32 (B1)	06:43		07:44	07:51	08:43
	21:58	20:59	38 07:10 (B1)	19:39		18:19	16:09	15:38
15	04:46	05:43	06:33 (B1)	06:45		07:46	07:53	08:44
	21:57	20:57	37 07:10 (B1)	19:37		18:17	16:07	15:38
16	04:48	05:45	06:33 (B1)	06:47	07:38 (B4)	07:48	07:55	08:45
	21:55	20:54	36 07:09 (B1)	19:34	11 07:49 (B4)	18:14	16:06	15:38
17	04:49	05:47	06:33 (B1)	06:49		07:50	07:57	08:46
	21:54	20:52	35 07:08 (B1)	19:31	15 07:51 (B4)	18:12	16:04	15:38
18	04:51	05:49	06:33 (B1)	06:51		07:52	07:59	08:46
	21:52	20:50	34 07:07 (B1)	19:29	18 07:52 (B4)	18:09	16:02	15:38
19	04:52	05:51	06:34 (B1)	06:53		07:55	08:01	08:47
	21:51	20:47	32 07:06 (B1)	19:26	19 07:52 (B4)	18:07	16:01	15:38
20	04:54	05:53	06:35 (B1)	06:55		07:57	08:03	08:48
	21:49	20:45	30 07:05 (B1)	19:23	21 07:53 (B4)	18:04	15:59	15:38
21	04:56	05:55	06:36 (B1)	06:57		07:59	08:05	08:48
	21:48	20:42	28 07:04 (B1)	19:20	21 07:53 (B4)	18:02	15:58	15:39
22	04:57	05:57	06:37 (B1)	06:59		08:01	08:07	08:49
	21:46	20:40	25 07:02 (B1)	19:18	21 07:51 (B4)	17:59	15:56	15:39
23	04:59	05:59	06:39 (B1)	07:01		08:03	08:09	08:50
	21:45	1 06:52 (B1)	20:37	19:15	21 07:51 (B4)	17:57	15:55	15:40
24	05:01	06:46 (B1)	06:01	07:03		08:05	08:11	08:50
	21:43	12 06:58 (B1)	20:35	19:12	19 07:50 (B4)	17:55	15:53	15:40
25	05:03	06:44 (B1)	06:03	07:05		08:13	08:19	08:50
	21:41	16 07:00 (B1)	20:32	19:10	16 07:49 (B4)	16:52	15:52	15:41
26	05:04	06:42 (B1)	06:05	07:07		08:15	08:21	08:51
	21:39	20 07:02 (B1)	20:29	19:07	13 07:49 (B4)	16:50	15:51	15:42
27	05:06	06:41 (B1)	06:07	07:09		08:17	08:23	08:51
	21:38	23 07:04 (B1)	20:27	19:04	9 07:47 (B4)	16:47	15:49	15:43
28	05:08	06:39 (B1)	06:09	07:11		08:19	08:25	08:51
	21:36	25 07:04 (B1)	20:24	19:02	4 07:44 (B4)	16:45	15:48	15:44
29	05:10	06:39 (B1)	06:11	07:13		08:21	08:27	08:51
	21:34	27 07:06 (B1)	20:22	18:59		16:43	15:47	15:44
30	05:12	06:38 (B1)	06:13	07:15		08:22	08:28	08:51
	21:32	29 07:07 (B1)	20:19	18:56		16:40	15:46	15:45
31	05:14	06:37 (B1)	06:15			08:24	08:30	08:51
	21:30	31 07:08 (B1)	20:17			16:38	15:47	15:47
Potential sun hours	529		469	385		324	247	216
Total, worst case	184		820	208				299
Sun reduction	0.49		0.50	0.43				0.07
Oper. time red.	0.98		0.98	0.98				0.98
Wind dir. red.	0.65		0.65	0.64				0.64
Total reduction	0.31		0.32	0.27				0.04
Total, real	58		260	56				13

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Zilusala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (150)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:34 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:06	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:21	04:26 22:06	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	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	07:09 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Abeles - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (153)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Arsmeniki (kad. apz. 76860060006001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (196)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:04	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:58	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:51	06:49 19:31	07:50 18:12	07:56 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:25	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:00 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:42	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Arsmenieki (kad. apz. 76860060006008) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (200)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
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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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14	08:42 16:08	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:51	06:49 19:31	07:50 18:12	07:56 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:25	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:00 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:42	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
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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)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ergliš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (208)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

		January	February	March		April	May	June	July	August	September		October		November	December	
1	08:50 15:48	08:14 16:45	07:10 17:47			06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14		07:17 18:53	23	17:57 (B3) 18:20 (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	21	17:58 (B3) 18:19 (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	19	17:58 (B3) 18:17 (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	15	18:00 (B3) 18:15 (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	10	18:02 (B3) 18:12 (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	2	18:07 (B3) 18:09 (B3)	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00			06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58		07:29 18:37			07:35 16:23	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	8	17:26 (B3) 17:34 (B3)	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	13	17:23 (B3) 17:36 (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) 17:38 (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	20	17:20 (B3) 17:40 (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 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	22	17:19 (B3) 17:41 (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	24	17:17 (B3) 17:41 (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	17:17 (B3) 17:42 (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	24	17:17 (B3) 17:41 (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	17:16 (B3) 17:41 (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	24	17:17 (B3) 17:41 (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	23	17:17 (B3) 17:40 (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	22	17:17 (B3) 17:39 (B3)	06:01 20:30	04:55 21:31	04:25 22:09	05:51 21:51	06:53 20:47	06:55 19:25		07:54 18:06			08:01 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	06:20 18:28	20	17:18 (B3) 17:38 (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		07:56 18:04			08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	17	17:19 (B3) 17:36 (B3)	05:56 20:34	04:51 21:34	04:25 22:10	05:55 21:48	06:57 20:42	06:57 19:20	18:07 (B3)	07:58 18:01			08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	12	17:21 (B3) 17:33 (B3)	05:54 20:36	04:49 21:36	04:25 22:10	05:57 21:46	06:59 20:39	06:59 19:17	18:04 (B3)	08:01 18:02 (B3)			08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	5	17:24 (B3) 17:29 (B3)	05:51 20:38	04:48 21:38	04:25 22:10	05:59 21:44	07:01 20:37	07:01 19:15	18:03 (B3)	08:03 18:21 (B3)			08:09 17:56	08:49 15:39
24	08:28 16:27	07:23 17:36	06:10 18:36			05:49 20:40	04:46 21:40	04:25 22:10	06:01 21:43	07:03 20:34	07:03 19:12	18:01 (B3)	08:05 18:22 (B3)			08:11 17:54	08:50 15:40
25	08:27 16:29	07:20 17:38	06:07 18:38			05:46 20:43	04:45 21:41	04:26 22:10	06:03 21:41	07:05 20:32	07:05 19:09	18:00 (B3)	08:07 18:23 (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	06:05 21:39	07:07 20:29	07:07 19:07	17:59 (B3)	08:09 18:23 (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	06:07 21:37	07:09 20:27	07:09 19:04	17:58 (B3)	08:11 18:23 (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	06:09 21:35	07:11 20:24	07:11 19:01	17:58 (B3)	08:13 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	06:11 21:33	07:13 20:21	07:13 18:58	17:57 (B3)	08:16 18:22 (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	06:13 21:31	07:15 20:19	07:15 18:56	17:57 (B3)	08:18 18:21 (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			300							212			90				
Sun reduction			0.41							0.43			0.26				
Oper. time red.			0.98							0.98			0.98				
Wind dir. red.			0.65							0.65			0.65				
Total reduction			0.26							0.27			0.17				
Total, real			79							58			15				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ergli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (34)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:57	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:19 21:08	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:33 18:32	07:40 16:18	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:17	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:25 22:07	04:46 21:57	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:04	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:51 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:47	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:43		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

SHADOW - Calendar

Shadow receptor: Ives - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:40 (B14)	06:49	05:33
	15:48	16:45	17:48	26 08:06 (B14)	19:53	20:55
2	08:51	08:13	07:08	07:39 (B14)	06:46	05:30
	15:50	16:48	17:50	27 08:06 (B14)	19:55	20:58
3	08:50	08:11	07:06	07:40 (B14)	06:44	05:28
	15:51	16:50	17:52	26 08:06 (B14)	19:57	21:00
4	08:50	08:09	07:03	07:39 (B14)	06:41	05:26
	15:52	16:52	17:54	27 08:06 (B14)	19:59	21:02
5	08:49	08:07	07:01	07:39 (B14)	06:38	05:24
	15:54	16:54	17:56	26 08:05 (B14)	20:01	21:04
6	08:49	08:05	06:58	07:40 (B14)	06:36	05:21
	15:55	16:57	17:58	25 08:05 (B14)	20:03	21:06
7	08:48	08:03	06:55	07:40 (B14)	06:33	05:19
	15:56	16:59	18:01	23 08:03 (B14)	20:06	21:08
8	08:48	08:01	06:53	07:41 (B14)	06:30	05:17
	15:58	17:01	18:03	20 08:01 (B14)	20:08	21:10
9	08:47	07:58	06:50	07:43 (B14)	06:28	05:15
	16:00	17:03	18:05	17 08:00 (B14)	20:10	21:12
10	08:46	07:56	06:48	07:45 (B14)	06:25	05:13
	16:01	17:05	18:07	12 07:57 (B14)	20:12	21:14
11	08:45	07:54	06:45	07:49 (B14)	06:22	05:11
	16:03	17:08	18:09	2 07:51 (B14)	20:14	21:16
12	08:44	07:52	06:42		06:20	05:09
	16:05	17:10	18:11		20:16	21:18
13	08:43	07:50	06:40		06:17	05:07
	16:06	17:12	18:13		20:18	21:20
14	08:42	07:47	06:37		06:15	05:05
	16:08	17:14	18:15		20:20	21:22
15	08:41	07:45	06:34		06:12	05:03
	16:10	17:17	18:18		20:22	21:24
16	08:40	07:43	06:32		06:09	05:01
	16:12	17:19	18:20		20:24	21:26
17	08:39	07:40	06:29		06:07	04:59
	16:14	17:21	18:22		20:26	21:27
18	08:38	07:38	06:26		06:04	04:57
	16:16	17:23	18:24		20:28	21:29
19	08:36	07:36	06:24		06:02	04:55
	16:18	17:26	18:26		20:31	21:31
20	08:35	07:33	06:21		05:59	04:53
	16:20	17:28	18:28		20:33	21:33
21	08:33	07:31	06:18		05:57	04:52
	16:22	17:30	18:30		20:35	21:35
22	08:32	07:28	07:55 (B14)	06:16	05:54	04:50
	16:24	17:32	3 07:58 (B14)	18:32	20:37	21:37
23	08:30	07:26	07:53 (B14)	06:13	05:52	04:48
	16:26	17:34	9 08:02 (B14)	18:34	20:39	21:38
24	08:29	07:23	07:50 (B14)	06:10	05:49	04:47
	16:28	17:37	13 08:03 (B14)	18:36	20:41	21:40
25	08:27	07:21	07:48 (B14)	06:08	05:47	04:45
	16:30	17:39	17 08:05 (B14)	18:39	20:43	21:42
26	08:26	07:18	07:45 (B14)	06:05	05:44	04:44
	16:32	17:41	20 08:05 (B14)	18:41	20:45	21:43
27	08:24	07:16	07:42 (B14)	06:02	05:42	04:42
	16:34	17:43	24 08:06 (B14)	18:43	20:47	21:45
28	08:22	07:13	07:41 (B14)	06:00	05:40	04:41
	16:37	17:45	26 08:07 (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			06:52		04:37
	16:43			19:51		21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		112	231		164	
Sun reduction		0.20	0.41		0.50	
Oper. time red.		0.98	0.98		0.98	
Wind dir. red.		0.63	0.63		0.66	
Total reduction		0.12	0.25		0.32	
Total, real		14	58		52	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Ives - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:47 (B22)	07:17	07:23
	22:09	21:28	20:14	9 06:56 (B22)	18:54	16:36
2	04:31	05:18	06:19	06:49 (B22)	07:19	07:25
	22:09	21:26	20:11	5 06:54 (B22)	18:51	16:34
3	04:32	05:20	06:21	06:51 (B22)	07:21	08:24 (B14)
	22:08	21:24	20:09	1 06:52 (B22)	18:48	10 08:34 (B14)
4	04:33	05:22	06:23	07:23	08:21 (B14)	07:29
	22:07	21:22	20:06	15 18:46	08:36 (B14)	16:30
5	04:34	05:24	06:25	07:25	08:19 (B14)	07:31
	22:07	21:20	20:04	19 18:43	08:38 (B14)	16:27
6	04:35	05:25	06:27	07:28	08:17 (B14)	07:34
	22:06	21:17	20:01	22 18:40	08:39 (B14)	16:25
7	04:36	05:27	06:29	07:30	08:16 (B14)	07:36
	22:05	21:15	19:58	23 18:38	08:39 (B14)	16:23
8	04:37	05:29	06:31	07:32	08:15 (B14)	07:38
	22:04	21:13	19:56	25 18:35	08:40 (B14)	16:21
9	04:38	05:31	06:33	07:34	08:15 (B14)	07:40
	22:03	21:11	19:53	26 18:33	08:41 (B14)	16:19
10	04:40	05:33	06:35	07:36	08:14 (B14)	07:42
	22:02	21:08	19:50	27 18:30	08:41 (B14)	16:17
11	04:41	05:35	06:37	07:38	08:13 (B14)	07:44
	22:01	21:06	19:48	27 18:27	08:40 (B14)	16:15
12	04:42	05:37	06:39	07:40	08:13 (B14)	07:46
	22:00	21:04	19:45	27 18:25	08:40 (B14)	16:13
13	04:44	05:39	06:41	07:42	08:13 (B14)	07:49
	21:59	21:02	19:42	26 18:22	08:39 (B14)	16:11
14	04:45	05:41	06:43	07:44	08:13 (B14)	07:51
	21:58	20:59	19:39	25 18:20	08:38 (B14)	16:10
15	04:46	05:43	06:45	07:46	08:16 (B14)	07:53
	21:57	20:57	19:37	22 18:17	08:38 (B14)	16:08
16	04:48	05:45	06:47	07:48	08:18 (B14)	07:55
	21:55	20:54	19:34	19 18:15	08:37 (B14)	16:06
17	04:49	05:47	06:49	07:50	08:20 (B14)	07:57
	21:54	20:52	19:31	16 18:12	08:36 (B14)	16:04
18	04:51	05:49	06:51	07:53	08:22 (B14)	07:59
	21:52	20:50	19:29	12 18:09	08:34 (B14)	16:03
19	04:53	05:51	06:53	07:55	08:25 (B14)	08:01
	21:51	20:47	19:26	7 18:07	08:32 (B14)	16:01
20	04:54	05:53	06:55	07:57	08:27 (B14)	08:03
	21:49	20:45	19:23	1 18:04	08:28 (B14)	15:59
21	04:56	05:55	06:57	07:59		08:05
	21:48	20:42	19:21	18:02		15:58
22	04:58	05:57	06:59	08:01		08:07
	21:46	20:40	7 06:53 (B22)	18:00		15:56
23	04:59	05:59	06:44 (B22)	08:03		08:09
	21:45	20:37	12 06:56 (B22)	17:57		15:55
24	05:01	06:01	06:42 (B22)	08:05		08:11
	21:43	20:35	15 06:57 (B22)	17:55		15:53
25	05:03	06:03	06:41 (B22)	07:07		08:13
	21:41	20:32	17 06:58 (B22)	16:52		15:52
26	05:05	06:05	06:40 (B22)	07:10		08:15
	21:39	20:30	18 06:58 (B22)	16:50		15:51
27	05:06	06:07	06:39 (B22)	07:12		08:17
	21:38	20:27	20 06:59 (B22)	16:48		15:50
28	05:08	06:09	06:39 (B22)	07:14		08:19
	21:36	20:24	19 06:58 (B22)	16:45		15:48
29	05:10	06:11	06:41 (B22)	07:16		08:21
	21:34	20:22	16 06:57 (B22)	16:43		15:47
30	05:12	06:13	06:43 (B22)	07:18		08:22
	21:32	20:19	14 06:57 (B22)	16:41		15:46
31	05:14	06:15	06:45 (B22)	07:20		08:51
	21:30	20:17	11 06:56 (B22)	16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		149	15	349		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.66	0.66	0.63		
Total reduction		0.32	0.27	0.16		
Total, real		47	4	55		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Kirš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	07:37 (B14) 07:56 (B14)	06:49 19:53	05:33 20:55
2	08:50 15:50	08:13 16:48	07:08 17:50	07:34 (B14) 07:57 (B14)	06:46 19:55	05:30 20:58
3	08:50 15:51	08:11 16:50	07:06 17:52	07:32 (B14) 07:58 (B14)	06:44 19:57	05:28 21:00
4	08:50 15:52	08:09 16:52	07:03 17:54	07:31 (B14) 07:58 (B14)	06:41 19:59	05:26 21:02
5	08:49 15:54	08:07 16:54	07:01 17:56	07:30 (B14) 07:58 (B14)	06:38 20:01	05:24 21:04
6	08:49 15:55	08:05 16:57	06:58 17:58	07:30 (B14) 07:59 (B14)	06:36 20:03	05:21 21:06
7	08:48 15:56	08:03 16:59	06:55 18:01	07:29 (B14) 07:59 (B14)	06:33 20:06	05:19 21:08
8	08:48 15:58	08:01 17:01	06:53 18:03	07:28 (B14) 07:58 (B14)	06:30 20:08	05:17 21:10
9	08:47 16:00	07:58 17:03	06:50 18:05	07:29 (B14) 07:59 (B14)	06:28 20:10	05:15 21:12
10	08:46 16:01	07:56 17:05	06:48 18:07	07:29 (B14) 07:58 (B14)	06:25 20:12	05:13 21:14
11	08:45 16:03	07:54 17:08	06:45 18:09	07:29 (B14) 07:57 (B14)	06:22 20:14	05:11 21:16
12	08:44 16:05	07:52 17:10	06:42 18:11	07:30 (B14) 07:56 (B14)	06:20 20:16	05:09 21:18
13	08:43 16:06	07:50 17:12	06:40 18:13	07:30 (B14) 07:55 (B14)	06:17 20:18	05:07 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	07:31 (B14) 07:53 (B14)	06:15 20:20	05:05 21:22
15	08:41 16:10	07:45 17:17	06:34 18:18	07:33 (B14) 07:51 (B14)	06:12 20:22	05:03 21:24
16	08:40 16:12	07:43 17:19	06:32 18:20	07:35 (B14) 07:48 (B14)	06:09 20:24	05:01 21:25
17	08:39 16:14	07:40 17:21	06:29 18:22	07:40 (B14) 07:42 (B14)	06:07 20:26	04:59 21:27
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:30 (B22) 06:42 (B22)	04:57 21:29
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	06:28 (B22) 06:43 (B22)	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	06:26 (B22) 06:43 (B22)	04:53 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:23 (B22) 06:42 (B22)	04:52 21:35
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:22 (B22) 06:42 (B22)	04:50 21:37
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:21 (B22) 06:41 (B22)	04:48 21:38
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:22 (B22) 06:41 (B22)	04:47 21:40
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	06:22 (B22) 06:40 (B22)	04:45 21:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	06:22 (B22) 06:39 (B22)	04:44 21:43
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:24 (B22) 06:37 (B22)	04:42 21:45
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	06:26 (B22) 06:36 (B22)	04:41 21:47
29	08:20 16:39		06:57 19:47	05:37 20:51		04:40 21:48
30	08:19 16:41		06:54 19:49	05:35 20:53		04:38 21:50
31	08:17 16:43		06:51 19:51			04:37 21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		28	405		195	
Sun reduction		0.20	0.41		0.50	
Oper. time red.		0.98	0.98		0.98	
Wind dir. red.		0.62	0.62		0.65	
Total reduction		0.12	0.25		0.32	
Total, real		3	101		62	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Kirš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	08:09 (B14) 16:36	07:23 15:45
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	08:08 (B14) 16:34	07:25 15:44
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	08:07 (B14) 16:32	07:27 15:43
4	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	08:06 (B14) 16:30	07:29 15:43
5	04:34 22:07	05:23 21:20	06:25 20:04	07:25 18:43	08:06 (B14) 16:27	07:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:05 (B14) 16:25	07:33 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:05 (B14) 16:23	07:36 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:05 (B14) 16:21	07:38 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:06 (B14) 16:19	07:40 15:39
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:06 (B14) 16:17	07:42 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:07 (B14) 16:15	07:44 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:09 (B14) 16:13	07:46 15:38
13	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:11 (B14) 16:11	07:49 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:13 (B14) 16:10	07:51 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:16 (B14) 16:08	07:53 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:24 (B14) 16:06	07:55 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:26 (B14) 16:04	07:57 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	08:28 (B14) 16:03	07:59 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:30 (B14) 16:01	08:01 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:32 (B14) 15:59	08:03 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:34 (B14) 15:58	08:05 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:36 (B14) 15:56	08:07 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:38 (B14) 15:55	08:09 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:40 (B14) 15:53	08:11 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:42 (B14) 15:52	08:13 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:44 (B14) 15:51	08:15 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:48	08:46 (B14) 15:50	08:17 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:46	08:48 (B14) 15:48	08:19 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:44	08:50 (B14) 15:47	08:21 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:42	08:52 (B14) 15:46	08:23 15:46
31	05:14 21:30	06:15 20:17		08:19 17:40	08:54 (B14) 15:45	08:25 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		199	71	367		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.98	0.98	0.98		
Wind dir. red.		0.65	0.62	0.62		
Total reduction		0.32	0.26	0.16		
Total, real		63	18	58		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
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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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Kikaukas (kad. apz. 56960030117001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (12)
Assumptions for shadow calculations Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:12	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
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	08:09 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Kikaukas (kad. apz. 56960030117008) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (13)
Assumptions for shadow calculations Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
---	-----	-----	---	-----	-----	---	-----	-----	---	-----	-----	-----

441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576
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Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:12	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
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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
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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
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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												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Lovani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (65)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
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7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
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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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20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
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27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
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Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
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Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Udensrozes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (185)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:09	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:34 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:06	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:05 21:21	04:26 22:06	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:50	08:50 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Udri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (186)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52 37 06:00 (B24)
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 37 06:00 (B24)
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 38 06:01 (B24)
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 38 06:02 (B24)
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 39 06:02 (B24)
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 39 06:02 (B24)
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 39 06:03 (B24)
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 40 06:03 (B24)
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 40 06:03 (B24)
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 41 06:04 (B24)
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 40 06:04 (B24)
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	06:45 (B25) 05:09 06:54 (B25) 21:18	04:27 22:05 41 06:04 (B24)
13	08:43 16:06	07:49 17:12	06:40 18:13	06:17 20:18	06:43 (B25) 05:07 06:57 (B25) 21:20	04:27 22:06 41 06:05 (B24)
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	06:40 (B25) 05:05 06:58 (B25) 21:22	04:26 22:06 41 06:05 (B24)
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	06:38 (B25) 05:03 06:59 (B25) 21:23	04:26 22:07 41 06:05 (B24)
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	06:35 (B25) 05:01 06:59 (B25) 21:25	04:26 22:08 41 06:05 (B24)
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	06:35 (B25) 04:59 07:00 (B25) 21:27	04:25 22:08 41 06:05 (B24)
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:34 (B25) 04:57 06:59 (B25) 21:29	04:25 22:09 41 06:05 (B24)
19	08:36 16:18	07:35 17:26	06:24 18:26	06:02 20:30	06:33 (B25) 04:55 07:00 (B25) 21:31	05:37 (B24) 04:25 05:45 (B24) 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	06:34 (B25) 04:53 07:00 (B25) 21:33	05:33 (B24) 04:25 05:48 (B24) 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:33 (B25) 04:52 06:59 (B25) 21:35	05:31 (B24) 04:25 05:50 (B24) 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:33 (B25) 04:50 06:59 (B25) 21:36	05:30 (B24) 04:26 05:52 (B24) 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:33 (B25) 04:48 06:58 (B25) 21:38	05:29 (B24) 04:26 05:53 (B24) 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:33 (B25) 04:47 06:58 (B25) 21:40	05:27 (B24) 04:26 05:54 (B24) 22:10
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	06:34 (B25) 04:45 06:57 (B25) 21:42	05:27 (B24) 04:27 05:55 (B24) 22:10
26	08:25 16:32	07:18 17:41	06:05 18:41	05:44 20:45	06:34 (B25) 04:44 06:55 (B25) 21:43	05:26 (B24) 04:27 05:56 (B24) 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:35 (B25) 04:42 06:54 (B25) 21:45	05:26 (B24) 04:28 05:57 (B24) 22:10
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	06:37 (B25) 04:41 06:53 (B25) 21:46	05:25 (B24) 04:28 05:57 (B24) 22:10
29	08:20 16:39		06:57 19:47	05:37 20:51	06:39 (B25) 04:40 06:51 (B25) 21:48	05:24 (B24) 04:29 05:58 (B24) 22:10
30	08:18 16:41		06:54 19:49	05:35 20:53	06:42 (B25) 04:38 06:47 (B25) 21:49	05:24 (B24) 04:29 05:59 (B24) 22:09
31	08:17 16:43		06:51 19:51		04:37 21:51	05:24 (B24) 04:29 05:59 (B24)
Potential sun hours	235	266	366	426	508	528
Total, worst case				387		1213
Sun reduction				0.50		0.56
Oper. time red.				0.98		0.98
Wind dir. red.				0.66		0.67
Total reduction				0.32		0.37
Total, real				124	127	446

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 05:23/4.0.531

SHADOW - Calendar

Shadow receptor: Udri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (186)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	487	780	784	937	1,214	1,078	832	556	8,576

Idle start wind speed: Cut in wind speed from power curve

	July		August		September	October	November	December
1	04:30	05:28 (B24)	05:16		06:17	07:17	07:22	08:24
	22:09	41 06:09 (B24)	21:28		20:14	18:54	16:36	15:45
2	04:31	05:27 (B24)	05:18		06:19	07:19	07:25	08:26
	22:08	41 06:08 (B24)	21:26		20:11	18:51	16:34	15:44
3	04:32	05:28 (B24)	05:20		06:21	07:21	07:27	08:27
	22:08	40 06:08 (B24)	21:24		20:09	18:48	16:32	15:43
4	04:33	05:28 (B24)	05:22		06:23	07:23	07:29	08:29
	22:07	40 06:08 (B24)	21:22		20:06	18:46	16:29	15:43
5	04:34	05:29 (B24)	05:23		06:25	07:25	07:31	08:31
	22:07	39 06:08 (B24)	21:19		20:03	18:43	16:27	15:42
6	04:35	05:29 (B24)	05:25		06:27	07:27	07:33	08:32
	22:06	39 06:08 (B24)	21:17		20:01	18:40	16:25	15:41
7	04:36	05:30 (B24)	05:27		06:29	07:29	07:36	08:34
	22:05	38 06:08 (B24)	21:15		19:58	18:38	16:23	15:40
8	04:37	05:30 (B24)	05:29		06:31	07:32	07:38	08:35
	22:04	38 06:08 (B24)	21:13		19:55	18:35	16:21	15:40
9	04:38	05:30 (B24)	05:31		06:33	07:34	07:40	08:36
	22:03	38 06:08 (B24)	21:11		19:53	18:32	16:19	15:39
10	04:40	05:31 (B24)	05:33		06:35	07:36	07:42	08:38
	22:02	37 06:08 (B24)	21:08		19:50	18:30	16:17	15:39
11	04:41	05:32 (B24)	05:35		06:37	07:38	07:44	08:39
	22:01	37 06:09 (B24)	21:06		19:47	18:27	16:15	15:39
12	04:42	05:32 (B24)	05:37		06:39	07:40	07:46	08:40
	22:00	36 06:08 (B24)	21:04		19:45	18:25	16:13	15:38
13	04:44	05:32 (B24)	05:39	06:48 (B25)	06:41	07:42	07:48	08:41
	21:59	36 06:08 (B24)	21:01	8 06:56 (B25)	19:42	18:22	16:11	15:38
14	04:45	05:33 (B24)	05:41	06:45 (B25)	06:43	07:44	07:51	08:43
	21:58	34 06:07 (B24)	20:59	14 06:59 (B25)	19:39	18:20	16:09	15:38
15	04:46	05:34 (B24)	05:43	06:44 (B25)	06:45	07:46	07:53	08:44
	21:56	33 06:07 (B24)	20:57	17 07:01 (B25)	19:37	18:17	16:08	15:38
16	04:48	05:34 (B24)	05:45	06:42 (B25)	06:47	07:48	07:55	08:44
	21:55	32 06:06 (B24)	20:54	20 07:02 (B25)	19:34	18:14	16:06	15:38
17	04:49	05:35 (B24)	05:47	06:41 (B25)	06:49	07:50	07:57	08:45
	21:54	30 06:05 (B24)	20:52	22 07:03 (B25)	19:31	18:12	16:04	15:38
18	04:51	05:36 (B24)	05:49	06:39 (B25)	06:51	07:52	07:59	08:46
	21:52	29 06:05 (B24)	20:49	24 07:03 (B25)	19:29	18:09	16:03	15:38
19	04:53	05:37 (B24)	05:51	06:39 (B25)	06:53	07:55	08:01	08:47
	21:51	27 06:04 (B24)	20:47	24 07:03 (B25)	19:26	18:07	16:01	15:38
20	04:54	05:38 (B24)	05:53	06:38 (B25)	06:55	07:57	08:03	08:48
	21:49	26 06:04 (B24)	20:45	26 07:04 (B25)	19:23	18:04	15:59	15:39
21	04:56	05:39 (B24)	05:55	06:38 (B25)	06:57	07:59	08:05	08:48
	21:48	23 06:02 (B24)	20:42	26 07:04 (B25)	19:20	18:02	15:58	15:39
22	04:58	05:41 (B24)	05:57	06:37 (B25)	06:59	08:01	08:07	08:49
	21:46	20 06:01 (B24)	20:40	27 07:04 (B25)	19:18	18:00	15:56	15:40
23	04:59	05:42 (B24)	05:59	06:37 (B25)	07:01	08:03	08:09	08:49
	21:44	17 05:59 (B24)	20:37	27 07:04 (B25)	19:15	17:57	15:55	15:40
24	05:01	05:45 (B24)	06:01	06:37 (B25)	07:03	08:05	08:11	08:50
	21:43	12 05:57 (B24)	20:35	27 07:04 (B25)	19:12	17:55	15:53	15:41
25	05:03	05:51 (B24)	06:03	06:37 (B25)	07:05	07:07	08:13	08:50
	21:41	1 05:52 (B24)	20:32	26 07:03 (B25)	19:10	16:52	15:52	15:41
26	05:05		06:05	06:38 (B25)	07:07	07:09	08:15	08:50
	21:39		20:29	25 07:03 (B25)	19:07	16:50	15:51	15:42
27	05:06		06:07	06:37 (B25)	07:09	07:12	08:17	08:51
	21:37		20:27	24 07:01 (B25)	19:04	16:48	15:50	15:43
28	05:08		06:09	06:39 (B25)	07:11	07:14	08:19	08:51
	21:36		20:24	21 07:00 (B25)	19:02	16:45	15:48	15:44
29	05:10		06:11	06:41 (B25)	07:13	07:16	08:21	08:51
	21:34		20:22	17 06:58 (B25)	18:59	16:43	15:47	15:45
30	05:12		06:13	06:43 (B25)	07:15	07:18	08:22	08:51
	21:32		20:19	14 06:57 (B25)	18:56	16:41	15:46	15:46
31	05:14		06:15	06:45 (B25)		07:20		08:51
	21:30		20:17	9 06:54 (B25)		16:38		15:47
Potential sun hours	529		469		384	324	248	216
Total, worst case		784		398				
Sun reduction		0.49		0.50				
Oper. time red.		0.98		0.98				
Wind dir. red.		0.67		0.66				
Total reduction		0.32		0.32				
Total, real		254		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)
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