

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:50 15:48	08:14 16:45	07:10 17:47		06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14		07:17 18:53	26	17:46 (C3) 18:12 (C3)	07:22 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	07:08 17:49		06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11		07:19 18:50	26	17:46 (C3) 18:12 (C3)	07:24 16:33	08:26 15:43
3	08:50 15:50	08:10 16:49	07:05 17:51		06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08		07:21 18:48	25	17:46 (C3) 18:11 (C3)	07:27 16:31	08:27 15:43
4	08:49 15:51	08:08 16:51	07:03 17:54		06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06		07:23 18:45	23	17:48 (C3) 18:11 (C3)	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56		06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03		07:25 18:42	21	17:48 (C3) 18:09 (C3)	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	13	17:15 (C3) 17:28 (C3)	06:35 20:03	05:21 21:05	04:30 21:59	05:25 22:06	06:27 20:00		07:27 18:40	18	17:49 (C3) 18:07 (C3)	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	16	17:14 (C3) 17:30 (C3)	06:32 20:05	05:18 21:07	04:29 22:00	05:27 22:05	06:29 21:15		07:29 18:37	15	17:50 (C3) 18:05 (C3)	07:35 16:23	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	19	17:12 (C3) 17:31 (C3)	06:30 20:07	05:16 21:09	04:29 22:01	05:29 22:04	06:31 21:13		07:31 18:35	9	17:53 (C3) 18:02 (C3)	07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	22	17:10 (C3) 17:32 (C3)	06:27 20:09	05:14 21:11	04:28 22:02	05:31 22:03	06:33 21:10		07:33 18:32		17:53 (C3) 18:02 (C3)	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	23	17:10 (C3) 17:33 (C3)	06:24 20:11	05:12 21:13	04:27 22:03	05:33 22:02	06:35 21:08		07:35 18:29		17:53 (C3) 18:06 (C3)	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	25	17:08 (C3) 17:33 (C3)	06:22 20:13	05:10 21:15	04:27 22:04	05:35 22:01	06:37 21:06		07:37 18:27		17:54 (C3) 18:07 (C3)	07:44 16:14	08:39 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	25	17:08 (C3) 17:33 (C3)	06:19 20:15	05:08 21:17	04:26 22:05	05:37 22:00	06:39 21:03		07:39 18:24		17:54 (C3) 18:07 (C3)	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	26	17:07 (C3) 17:33 (C3)	06:17 20:18	05:06 21:19	04:26 22:06	05:39 21:59	06:41 21:01		07:41 18:22		17:55 (C3) 18:08 (C3)	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:36 18:15	26	17:07 (C3) 17:33 (C3)	06:14 20:20	05:04 21:21	04:25 22:06	05:41 21:58	06:43 20:59		07:44 18:19		17:56 (C3) 18:09 (C3)	07:50 16:09	08:42 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	25	17:07 (C3) 17:32 (C3)	06:11 20:22	05:02 21:23	04:25 22:07	05:43 21:56	06:45 20:56		07:46 18:16		17:57 (C3) 18:10 (C3)	07:52 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	24	17:07 (C3) 17:31 (C3)	06:09 20:24	05:00 21:25	04:25 22:08	05:45 21:55	06:47 20:54		07:48 18:14		17:58 (C3) 18:11 (C3)	07:55 16:05	08:44 15:37
17	08:38 16:13	07:40 17:21	06:28 18:21	23	17:08 (C3) 17:31 (C3)	06:06 20:26	04:58 21:27	04:25 22:08	05:47 21:54	06:49 20:52		07:50 18:11		17:59 (C3) 18:12 (C3)	07:57 16:04	08:45 15:37
18	08:37 16:15	07:37 17:23	06:26 18:23	21	17:08 (C3) 17:29 (C3)	06:04 20:28	04:56 21:29	04:25 22:09	05:49 21:52	06:51 20:49		07:52 18:09		18:01 (C3) 18:14 (C3)	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:25	18	17:09 (C3) 17:27 (C3)	06:01 20:30	04:55 21:31	04:25 22:09	05:51 21:51	06:53 20:47		07:54 18:06		18:02 (C3) 18:15 (C3)	08:01 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	06:20 18:28	14	17:12 (C3) 17:26 (C3)	05:59 20:32	04:53 21:33	04:25 22:09	05:53 21:49	06:55 20:44		07:56 18:04		18:03 (C3) 18:16 (C3)	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	8	17:14 (C3) 17:22 (C3)	05:56 20:34	04:51 21:34	04:25 22:10	05:55 21:48	06:57 20:42		07:58 18:01		18:04 (C3) 18:17 (C3)	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32		05:54 20:36	05:54 21:36	04:49 22:10	04:25 21:46	05:57 20:39	06:59 19:17	18:01 (C3) 18:05 (C3)	08:01 17:59		18:01 (C3) 18:14 (C3)	08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34		05:51 20:38	05:51 21:38	04:48 22:10	04:25 21:44	05:59 20:37	07:01 19:15	17:56 (C3) 18:09 (C3)	08:03 17:56		18:01 (C3) 18:14 (C3)	08:09 15:54	08:49 15:39
24	08:28 16:27	07:23 17:36	06:10 18:36		05:49 20:40	05:49 21:40	04:46 22:10	04:25 21:43	06:01 20:34	07:03 19:12	17:54 (C3) 18:11 (C3)	08:05 17:54		18:01 (C3) 18:14 (C3)	08:11 15:53	08:50 15:40
25	08:27 16:29	07:20 17:38	06:07 18:38		05:46 20:43	05:46 21:41	04:45 22:10	04:26 21:41	06:03 20:32	07:05 19:09	17:52 (C3) 18:12 (C3)	07:07 16:52		18:01 (C3) 18:14 (C3)	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:40	06:04 18:40		05:44 20:45	05:44 21:43	04:43 22:10	04:26 21:39	06:05 20:29	07:07 19:07	17:50 (C3) 18:12 (C3)	07:09 16:49		18:01 (C3) 18:14 (C3)	08:15 15:50	08:50 15:41
27	08:23 16:34	07:15 17:43	06:02 18:42		05:41 20:47	05:41 21:45	04:42 22:10	04:27 21:37	06:07 20:27	07:09 19:04	17:49 (C3) 18:13 (C3)	07:11 16:47		18:01 (C3) 18:14 (C3)	08:17 15:49	08:50 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44		05:39 20:49	05:39 21:46	04:40 22:10	04:27 21:35	06:09 20:24	07:11 19:01	17:48 (C3) 18:13 (C3)	07:13 16:45		18:01 (C3) 18:14 (C3)	08:18 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46		05:37 20:51	05:37 21:48	04:39 22:09	04:28 21:33	06:11 20:21	07:13 18:58	17:47 (C3) 18:13 (C3)	07:16 16:42		18:01 (C3) 18:14 (C3)	08:20 15:47	08:51 15:44
30	08:18 16:40		06:54 19:48		05:34 20:53	05:34 21:49	04:38 22:09	04:29 21:31	06:13 20:19	07:15 18:56	17:47 (C3) 18:13 (C3)	07:18 16:40		18:01 (C3) 18:14 (C3)	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:50			04:36 21:51		05:13 21:29	06:15 20:16			07:20 16:38			08:51 15:46	
Potential sun hours	235	266	366		426	508	529	529	469	385		324		247	216	
Total, worst case				328							177		163			
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.94						0.94		0.94				
Wind dir. red.				0.65						0.65		0.65				
Total reduction				0.25						0.26		0.16				
Total, real				83						46		26				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	07:49 (C14) 19:53	06:49 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	06:17 18:54	07:17 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	07:49 (C14) 19:55	06:46 20:58	05:30 21:54	04:35 22:09	04:31 21:26	05:18 20:11	06:19 18:51	07:19 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	07:50 (C14) 19:57	06:44 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:20 20:09	06:21 18:48	07:21 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	07:50 (C14) 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:22 20:06	06:23 18:46	07:23 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	07:51 (C14) 19:59	06:38 21:04	05:24 21:58	04:34 22:07	04:34 21:20	05:24 20:04	06:25 18:43	07:26 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	07:53 (C14) 19:59	06:36 21:06	05:21 21:59	04:35 22:06	04:35 21:17	05:25 20:01	06:27 18:40	07:28 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	07:55 (C14) 19:59	06:33 21:08	05:19 22:00	04:36 22:05	04:36 21:15	05:27 19:58	06:29 18:38	07:30 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	08:05 (C14) 19:59	06:30 21:10	05:17 22:01	04:37 22:04	04:37 21:13	05:29 19:56	06:31 18:35	07:32 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	04:38 21:11	05:31 19:53	06:33 18:33	07:34 16:20	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	04:40 21:09	05:33 19:50	06:35 18:30	07:36 16:22	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	04:41 21:06	05:35 19:48	06:37 18:27	07:38 16:23	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	04:42 21:04	05:37 19:45	06:39 18:25	07:40 16:23	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	04:44 21:02	05:39 19:42	06:41 18:22	07:42 16:21	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	04:45 20:59	05:41 19:39	06:43 18:20	07:44 16:20	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	04:46 20:57	05:43 19:37	06:45 18:17	07:46 16:18	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	04:48 20:54	05:45 19:34	06:47 18:15	07:48 16:15	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	04:49 20:52	05:47 19:31	06:49 18:12	07:50 16:14	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	04:51 20:50	05:49 19:29	06:51 18:09	07:53 16:03	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	04:53 20:47	06:53 19:26	07:55 18:07	07:55 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:49	04:54 20:45	06:55 19:23	07:57 18:04	07:57 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	04:56 20:42	06:57 19:21	07:59 18:02	07:59 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	04:26 22:10	04:58 21:46	04:58 20:40	06:59 19:18	08:01 18:00	08:01 16:04	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	04:59 20:37	07:01 19:15	08:03 17:57	08:03 16:04	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:05 16:04	08:51 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	05:03 20:32	07:05 19:10	08:07 17:52	08:07 16:04	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	05:05 20:30	07:07 19:07	08:09 17:50	08:09 16:04	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	05:06 20:27	07:09 19:04	08:12 17:48	08:12 16:04	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	05:08 20:24	07:11 19:02	08:14 17:45	08:14 16:04	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	05:10 20:22	07:13 18:59	08:16 17:43	08:16 16:04	08:51 15:45
30	08:19 16:41	07:10 17:49	05:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	05:12 20:19	07:15 18:56	08:18 17:41	08:18 16:04	08:51 15:46
31	08:17 16:43	07:09 17:51	05:52 19:51	05:33 20:53	04:37 21:51	04:29 22:10	05:14 21:30	05:14 20:17	07:20 18:38	08:21 17:38	08:21 16:04	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		187	139							328		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.94	0.94							0.94		
Wind dir. red.		0.63	0.63							0.63		
Total reduction		0.12	0.24							0.15		
Total, real		22	34							50		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45		07:11 17:48		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
2	08:51 15:50	08:13 16:48		07:08 17:50	26	07:47 (C14) 19:55	06:46 20:58	05:30 21:54	04:35 22:09	05:18 21:26	06:19 20:11	07:19 18:51
3	08:50 15:51	08:11 16:50		07:06 17:52	25	07:48 (C14) 19:57	06:44 21:00	05:28 21:55	04:34 22:08	05:20 21:24	06:21 20:09	07:21 18:48
4	08:50 15:52	08:09 16:52		07:03 17:54	24	07:48 (C14) 19:59	06:41 21:02	05:26 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46
5	08:49 15:54	08:07 16:54		07:01 17:56	23	07:48 (C14) 20:01	06:38 21:04	05:24 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:25 18:43
6	08:49 15:55	08:05 16:57		06:58 17:58	22	07:50 (C14) 20:03	06:36 21:06	05:21 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40
7	08:48 15:56	08:03 16:59		06:55 18:01	19	07:51 (C14) 20:06	06:33 21:08	05:19 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38
8	08:48 15:58	08:01 17:01		06:53 18:03	15	07:53 (C14) 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
9	08:47 16:00	07:58 17:03		06:50 18:05	10	08:03 (C14) 20:08	06:28 21:12	05:15 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33
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 21:11	06:35 19:53	07:36 18:33
11	08:45 16:03	07:54 17:08		06:45 18:09		06:22 20:14	05:11 21:16	04:27 22:03	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27
12	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
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
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
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
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
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
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 18:09
19	08:36 16:18	07:36 17:26		06:24 18:26		06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07
20	08:35 16:20	07:33 17:28	08:00 (C14)	06:21 18:28		05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04
21	08:33 16:22	07:31 17:30	08:05 (C14)	06:18 18:30		05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02
22	08:32 16:24	07:28 17:32	08:08 (C14)	06:16 18:32		05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00
23	08:30 16:26	07:26 17:34	08:10 (C14)	06:13 18:34		05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57
24	08:29 16:28	07:23 17:37	08:12 (C14)	06:10 18:36		05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55
25	08:27 16:30	07:21 17:39	08:14 (C14)	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52
26	08:26 16:32	07:18 17:41	08:16 (C14)	06:05 18:41		05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50
27	08:24 16:34	07:16 17:43	08:18 (C14)	06:02 18:43		05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48
28	08:22 16:37	07:13 17:45	08:20 (C14)	06:00 18:45		05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 17:45
29	08:20 16:39		08:22 (C14)	06:57 19:47		05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43
30	08:19 16:41		08:24 (C14)	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
31	08:17 16:43		08:26 (C14)	06:52 19:51		05:33 20:55	04:37 21:51		05:14 21:30	06:15 20:17		08:20 16:38
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		172	164							340		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.94	0.94							0.94		
Wind dir. red.		0.63	0.63							0.63		
Total reduction		0.12	0.24							0.15		
Total, real		20	40							52		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	08:04 (C1) 18:18 (C1)	06:49 19:53	05:32 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36
2	08:51 15:49	08:13 16:47	07:08 17:50	08:06 (C1) 18:15 (C1)	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34
3	08:50 15:51	08:11 16:50	07:06 17:52	07:03 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 18:48	07:27 16:31
4	08:50 15:52	08:09 16:52	07:03 17:54	07:03 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:32 21:22	05:21 20:06	06:23 18:46	07:23 18:46	07:29 16:29
5	08:49 15:53	08:07 16:54	07:00 17:56	07:00 19:59	06:38 21:01	05:23 21:58	04:32 22:07	04:33 21:20	05:23 20:03	06:25 18:43	07:25 18:43	07:31 16:27
6	08:49 15:55	08:05 16:56	06:58 17:58	06:58 19:59	06:35 21:03	05:21 21:59	04:31 22:06	04:35 21:17	05:25 20:01	06:27 18:40	07:27 18:40	07:33 16:25
7	08:48 15:56	08:03 16:59	06:55 18:00	06:55 19:59	06:33 21:05	05:19 22:00	04:30 22:05	04:36 21:15	05:27 20:58	06:29 18:38	07:30 18:38	07:36 16:23
8	08:48 15:58	08:01 17:01	06:53 18:03	06:53 19:59	06:30 21:08	05:17 22:01	04:29 22:04	04:37 21:13	05:29 20:55	06:31 18:35	07:32 18:35	07:38 16:21
9	08:47 15:59	07:58 17:03	06:50 18:05	06:50 19:59	06:27 21:10	05:15 22:02	04:28 22:03	04:38 21:11	05:31 20:53	06:33 18:32	07:34 18:32	07:40 16:19
10	08:46 16:01	07:56 17:05	06:47 18:07	06:47 19:59	06:25 21:12	05:13 22:03	04:28 22:02	04:39 21:08	05:33 20:50	06:35 18:30	07:36 18:30	07:42 16:17
11	08:45 16:03	07:54 17:08	06:45 18:09	06:45 19:59	06:22 21:14	05:10 22:04	04:27 22:01	04:41 21:06	05:35 20:47	06:37 18:27	07:38 18:27	07:44 16:15
12	08:44 16:04	07:52 17:10	06:42 18:11	06:42 19:59	06:20 21:16	05:08 22:05	04:27 22:00	04:42 21:04	05:37 20:45	06:39 18:25	07:40 18:25	07:46 16:12
13	08:43 16:06	07:50 17:12	06:40 18:13	06:40 19:59	06:17 21:18	05:06 22:06	04:43 22:01	04:43 21:02	05:39 20:42	06:41 18:22	07:42 18:22	07:49 16:11
14	08:42 16:08	07:47 17:14	06:37 18:15	06:37 19:59	06:14 21:20	05:04 22:07	04:26 22:07	04:45 21:58	05:41 20:59	06:43 18:19	07:44 18:19	07:51 16:09
15	08:41 16:10	07:45 17:17	06:34 18:17	06:34 19:59	06:12 21:22	05:02 22:07	04:26 22:07	04:46 21:57	05:43 20:57	06:45 18:17	07:46 18:17	07:53 16:07
16	08:40 16:12	07:43 17:19	06:32 18:20	06:32 19:59	06:10 21:24	05:01 22:07	04:25 22:07	04:48 21:55	05:45 20:54	06:47 18:14	07:48 18:14	07:55 16:06
17	08:39 16:14	07:40 17:21	06:29 18:22	06:29 19:59	06:07 21:27	04:59 22:09	04:25 21:54	04:49 20:52	05:47 20:51	06:49 18:12	07:50 18:12	08:01 16:04
18	08:38 16:16	07:38 17:23	06:26 18:24	06:26 19:59	06:04 21:29	04:57 22:09	04:25 21:53	04:51 20:50	05:49 20:49	06:51 18:09	07:52 18:09	08:03 16:02
19	08:36 16:18	07:36 17:25	06:24 18:26	06:24 19:59	06:02 21:31	04:55 22:09	04:52 21:51	05:51 20:47	06:53 20:47	07:55 18:07	08:05 18:07	08:11 16:01
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 19:59	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 18:04	08:08 15:59
21	08:33 16:22	07:31 17:30	06:18 18:30	06:18 19:59	05:57 21:35	04:52 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 18:02	08:11 15:58
22	08:32 16:24	07:28 17:32	06:15 18:32	06:15 19:59	05:54 21:37	04:50 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 18:01	08:13 15:56
23	08:30 16:26	07:26 17:34	06:13 18:34	06:13 19:59	05:52 21:39	04:48 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 18:03	08:15 15:55
24	08:29 16:28	07:23 17:37	06:10 18:36	06:10 19:59	05:49 21:40	04:47 22:11	04:59 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 18:05	08:17 15:53
25	08:27 16:30	07:21 17:39	06:07 18:38	06:07 19:59	05:47 21:42	04:45 22:11	04:57 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 18:03	08:19 15:52
26	08:26 16:32	07:18 17:41	06:05 18:41	06:05 19:59	05:44 21:43	04:44 22:10	04:57 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 18:09	08:21 15:52
27	08:24 16:34	07:16 17:43	06:02 18:43	06:02 19:59	05:42 21:45	04:42 22:10	04:57 21:38	06:07 20:27	07:09 19:04	08:11 17:47	08:17 18:04	08:23 15:51
28	08:22 16:36	07:13 17:45	05:59 18:45	05:59 19:59	05:39 21:47	04:41 22:10	04:58 21:36	06:09 20:24	07:11 19:02	08:13 17:45	08:19 18:04	08:25 15:50
29	08:20 16:39	07:11 17:48	05:57 18:47	05:57 19:59	05:37 21:48	04:39 22:10	04:59 21:34	06:11 20:22	07:13 18:59	08:15 17:43	08:21 18:04	08:27 15:49
30	08:19 16:41	07:10 17:49	05:56 18:49	05:56 19:59	05:35 21:50	04:38 22:10	04:59 21:32	06:13 20:19	07:15 18:56	08:17 17:42	08:23 18:04	08:29 15:48
31	08:17 16:43	07:09 17:51	05:54 18:51	05:54 19:59	05:33 21:51	04:37 22:10	04:58 21:30	06:15 20:17	07:20 18:38	08:19 17:40	08:25 18:04	08:31 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		243	23							271		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.94	0.94							0.94		
Wind dir. red.		0.62	0.62							0.62		
Total reduction		0.12	0.24							0.15		
Total, real		29	6							41		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54		08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	23 08:24 (C1)	15:45 15:44
3	08:50 15:50	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:55	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	23 08:24 (C1)	15:44 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:32 21:57	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	22 08:24 (C1)	15:43 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	21 08:23 (C1)	15:42 15:41
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:31 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	18 08:23 (C1)	15:41 15:41
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	14 08:21 (C1)	15:41 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	10 08:19 (C1)	15:40 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	05:15 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	6 08:18 (C1)	15:40 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30		15:39 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27		15:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25		15:38 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		15:38 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19		15:38 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:02 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17		15:38 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:00 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14		15:38 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12		15:38 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09		15:38 15:38
19	08:36 16:18	07:36 17:25	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07		15:38 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		15:38 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:51 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02		15:38 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	09:10 (C1)	15:39 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	09:07 (C1)	15:39 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	09:05 (C1)	15:40 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	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	09:03 (C1)	15:40 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	05:04 21:39	06:05 20:30	07:07 19:07	08:09 17:50	09:03 (C1)	15:41 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:47	09:02 (C1)	15:41 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 17:45	09:01 (C1)	15:41 15:43
29	08:20 16:39		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	09:01 (C1)	15:41 15:44
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:40	09:01 (C1)	15:41 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	08:21 15:25		15:41 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		317								191	137	
Sun reduction		0.20								0.26	0.08	
Oper. time red.		0.94								0.94	0.94	
Wind dir. red.		0.61								0.61	0.61	
Total reduction		0.12								0.15	0.05	
Total, real		37								28	7	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	07:59 (C13) 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	07:59 (C13) 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:00 (C13) 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:02 (C13) 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:34 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:25 18:43	07:31 16:27	08:05 (C13) 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	08:07 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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	08:15 (C13) 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 15:51	08:15 (C13) 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	08:15 (C13) 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 15:48	08:15 (C13) 15:44
29	08:20 16:39	07:11 17:46	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 16:43	08:21 15:47	08:15 (C13) 15:45
30	08:19 16:41	07:11 17:46	05:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:17 16:41	08:23 15:46	08:15 (C13) 15:46
31	08:17 16:43	07:11 17:46	05:51 19:51	05:33 21:51	04:37 21:51	04:30 22:10	05:14 21:30	06:15 20:17	07:20 16:38	08:21 15:46	08:23 15:47	08:15 (C13) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		298								205	96	
Sun reduction		0.20								0.26	0.08	
Oper. time red.		0.94								0.94	0.94	
Wind dir. red.		0.61								0.61	0.61	
Total reduction		0.12								0.15	0.05	
Total, real		35								31	5	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

January		February		March		April		May		June	
1	08:51 15:48		08:15 16:45	08:45 (C15) 10:13 (C14)	07:11 17:48	06:49 19:53		05:33 20:55	04:36 21:53		
2	08:50 15:49		08:13 16:48	08:44 (C15) 10:14 (C14)	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	08:44 (C15) 10:14 (C14)	07:06 17:52	06:43 19:57	07:20 (C13) 07:26 (C13)	05:28 21:00	04:34 21:55		
4	08:50 15:52		08:09 16:52	08:43 (C15) 10:14 (C14)	07:03 17:54	06:41 19:59	07:15 (C13) 07:31 (C13)	05:26 21:02	04:33 21:57		
5	08:49 15:53		08:07 16:54	08:43 (C15) 10:14 (C14)	07:01 17:56	06:38 20:01	07:12 (C13) 07:33 (C13)	05:23 21:04	04:32 21:58		
6	08:49 15:55		08:05 16:56	08:43 (C15) 10:13 (C14)	06:58 17:58	06:35 20:03	07:10 (C13) 07:35 (C13)	05:21 21:06	04:31 21:59		
7	08:48 15:56		08:03 16:59	08:43 (C15) 10:13 (C14)	06:55 18:01	06:33 20:06	07:08 (C13) 07:36 (C13)	05:19 21:08	04:30 22:00		
8	08:48 15:58		08:01 17:01	08:43 (C15) 10:12 (C14)	06:53 18:03	06:30 20:08	07:07 (C13) 07:37 (C13)	05:17 21:10	04:29 22:01		
9	08:47 16:00	09:43 (C14) 8	07:58 17:03	08:43 (C15) 10:11 (C14)	06:50 18:05	06:28 20:10	07:05 (C13) 07:37 (C13)	05:15 21:12	04:29 22:02		
10	08:46 16:01	09:41 (C14) 12	07:56 17:05	08:44 (C15) 10:10 (C14)	06:47 18:07	06:25 20:12	07:04 (C13) 07:37 (C13)	05:13 21:14	04:28 22:03		
11	08:45 16:03	09:40 (C14) 16	07:54 17:08	08:45 (C15) 10:09 (C14)	06:45 18:09	06:22 20:14	07:03 (C13) 07:38 (C13)	05:11 21:16	04:27 22:04		
12	08:44 16:05	09:39 (C14) 19	07:52 17:10	08:45 (C15) 10:07 (C14)	06:42 18:11	06:20 20:16	07:02 (C13) 07:38 (C13)	05:09 21:18	04:27 22:05		
13	08:43 16:06	09:37 (C14) 22	07:50 17:12	08:46 (C15) 10:06 (C14)	06:40 18:13	06:17 20:18	07:02 (C13) 07:38 (C13)	05:07 21:20	04:26 22:06		
14	08:42 16:08	09:37 (C14) 24	07:47 17:14	08:47 (C15) 10:03 (C14)	06:37 18:15	06:15 20:20	07:01 (C13) 07:38 (C13)	05:05 21:22	04:26 22:07		
15	08:41 16:10	09:35 (C14) 26	07:45 17:17	08:49 (C15) 09:59 (C14)	06:34 18:18	06:12 20:22	07:01 (C13) 07:38 (C13)	05:03 21:24	04:26 22:07		
16	08:40 16:12	09:35 (C14) 28	07:43 17:19	08:53 (C15) 10:03 (C14)	06:32 18:20	06:09 20:24	07:01 (C13) 07:37 (C13)	05:01 21:25	04:26 22:08		
17	08:39 16:14	09:35 (C14) 30	07:40 17:21	08:57 (C15) 10:05 (C14)	06:29 18:22	06:07 20:26	07:01 (C13) 07:37 (C13)	04:59 21:27	04:25 22:08		
18	08:37 16:16	09:34 (C14) 31	07:38 17:23		06:26 18:24	06:04 20:28	07:00 (C13) 07:36 (C13)	04:57 21:29	04:25 22:09		
19	08:36 16:18	09:34 (C14) 32	07:36 17:26		06:24 18:26	06:02 20:30	07:01 (C13) 07:36 (C13)	04:55 21:31	04:25 22:09		
20	08:35 16:20	09:34 (C14) 34	07:33 17:28		06:21 18:28	05:59 20:33	07:02 (C13) 07:36 (C13)	04:53 21:33	04:25 22:10		
21	08:33 16:22	09:33 (C14) 35	07:31 17:30		06:18 18:30	05:57 20:35	07:02 (C13) 07:34 (C13)	04:52 21:35	04:25 22:10		
22	08:32 16:24	09:33 (C14) 36	07:28 17:32		06:16 18:32	05:54 20:37	07:02 (C13) 07:33 (C13)	04:50 21:37	04:26 22:10		
23	08:30 16:26	09:32 (C14) 38	07:26 17:34		06:13 18:34	05:52 20:39	07:03 (C13) 07:31 (C13)	04:48 21:38	04:26 22:10		
24	08:29 16:28	09:33 (C14) 38	07:23 17:37		06:10 18:36	05:49 20:41	07:04 (C13) 07:30 (C13)	04:47 21:40	04:26 22:10		
25	08:27 16:30	09:33 (C14) 39	07:21 17:39		06:08 18:38	05:47 20:43	07:05 (C13) 07:29 (C13)	04:45 21:42	04:26 22:10		
26	08:26 16:32	09:33 (C14) 39	07:18 17:41		06:05 18:41	05:44 20:45	07:06 (C13) 07:26 (C13)	04:44 21:43	04:27 22:10		
27	08:24 16:34	09:33 (C14) 40	07:16 17:43		06:02 18:43	05:42 20:47	07:08 (C13) 07:24 (C13)	04:42 21:45	04:27 22:10		
28	08:22 16:37	09:33 (C14) 40	07:13 17:45		05:59 18:45	05:40 20:49	07:12 (C13) 07:20 (C13)	04:41 21:47	04:28 22:10		
29	08:20 16:39	08:52 (C15) 47			06:57 19:47	05:37 20:51		04:40 21:48	04:29 22:10		
30	08:18 16:41	08:50 (C15) 52			06:54 19:49	05:35 20:53		04:38 21:50	04:29 22:09		
31	08:17 16:43	08:48 (C15) 56			06:51 19:51			04:37 21:51			
Potential sun hours	235		266		366	426		508	529		
Total, worst case	742		813			734					
Sun reduction	0.13		0.20			0.50					
Oper. time red.	0.94		0.94			0.94					
Wind dir. red.	0.61		0.60			0.66					
Total reduction	0.07		0.11			0.30					
Total, real	55		91			222					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:02 (C13)	07:17	07:23
	22:09	21:28	20:14	18:54	16:36	08:13 (C15)
2	04:31	05:18	06:19	07:03 (C13)	07:19	07:25
	22:09	21:26	20:11	18:51	16:34	08:13 (C15)
3	04:32	05:20	06:21	07:03 (C13)	07:21	07:27
	22:08	21:24	20:09	18:48	16:32	08:13 (C15)
4	04:33	05:21	06:23	07:04 (C13)	07:23	07:29
	22:07	21:22	20:06	18:46	16:29	08:13 (C15)
5	04:34	05:23	06:25	07:05 (C13)	07:25	07:31
	22:07	21:20	20:03	18:43	16:27	08:13 (C15)
6	04:35	05:25	06:27	07:06 (C13)	07:27	07:33
	22:06	21:17	20:01	18:40	16:25	08:13 (C15)
7	04:36	05:27	06:29	07:07 (C13)	07:30	07:36
	22:05	21:15	19:58	18:38	16:23	08:13 (C15)
8	04:37	05:29	06:31	07:09 (C13)	07:32	07:38
	22:04	21:13	19:55	18:35	16:21	08:13 (C15)
9	04:38	05:31	06:33	07:13 (C13)	07:34	07:40
	22:03	21:11	19:53	18:32	16:19	08:13 (C15)
10	04:39	05:33	06:35	07:15 (C13)	07:36	07:42
	22:02	21:08	19:50	18:30	16:17	08:13 (C15)
11	04:41	05:35	06:37	07:17 (C13)	07:38	07:44
	22:01	21:06	19:47	18:27	16:15	08:13 (C15)
12	04:42	05:37	06:39	07:19 (C13)	07:40	07:46
	22:00	21:04	19:45	18:25	16:13	08:13 (C15)
13	04:43	05:39	06:41	07:21 (C13)	07:42	07:49
	21:59	21:02	19:42	18:22	16:11	08:13 (C15)
14	04:45	05:41	06:43	07:23 (C13)	07:44	07:51
	21:58	20:59	19:39	18:20	16:09	08:13 (C15)
15	04:46	05:43	06:45	07:25 (C13)	07:46	07:53
	21:57	20:57	19:37	18:17	16:08	08:13 (C15)
16	04:48	05:45	06:47	07:27 (C13)	07:48	07:55
	21:55	20:54	19:34	18:14	16:06	08:13 (C15)
17	04:49	05:47	06:49	07:29 (C13)	07:50	07:57
	21:54	20:52	19:31	18:12	16:04	08:13 (C15)
18	04:51	05:49	06:51	07:31 (C13)	07:52	07:59
	21:52	20:50	19:29	18:09	16:02	08:13 (C15)
19	04:53	05:51	06:53	07:33 (C13)	07:55	08:01
	21:51	20:47	19:26	18:07	16:01	08:13 (C15)
20	04:54	05:53	06:55	07:35 (C13)	07:57	08:03
	21:49	20:45	19:23	18:04	15:59	08:13 (C15)
21	04:56	05:55	06:57	07:37 (C13)	07:59	08:05
	21:48	20:42	19:21	18:02	15:58	08:13 (C15)
22	04:58	05:57	06:59	07:39 (C13)	08:01	08:07
	21:46	20:40	19:18	18:00	15:56	08:13 (C15)
23	04:59	05:59	07:01	07:41 (C13)	08:03	08:09
	21:45	20:37	19:15	17:57	15:55	08:13 (C15)
24	05:01	06:01	07:03	07:43 (C13)	08:05	08:11
	21:43	20:35	19:12	17:55	15:53	08:13 (C15)
25	05:03	06:03	07:05	07:45 (C13)	08:07	08:13
	21:41	20:32	19:10	17:52	15:52	08:13 (C15)
26	05:05	06:05	07:07	07:47 (C13)	08:09	08:15
	21:39	20:30	19:07	17:50	15:51	08:13 (C15)
27	05:06	06:07	07:09	07:49 (C13)	08:11	08:17
	21:38	20:27	19:04	17:48	15:49	08:13 (C15)
28	05:08	06:09	07:11	07:51 (C13)	08:13	08:19
	21:36	20:24	19:02	17:46	15:48	08:13 (C15)
29	05:10	06:11	07:13	07:53 (C13)	08:15	08:21
	21:34	20:22	18:59	17:43	15:47	08:13 (C15)
30	05:12	06:13	07:15	07:55 (C13)	08:17	08:23
	21:32	20:19	18:56	17:41	15:46	08:13 (C15)
31	05:14	06:15	07:17	07:57 (C13)	08:19	08:25
	21:30	20:17	18:53	17:38	15:45	08:13 (C15)
Potential sun hours	529	469	385	324	247	216
Total, worst case		516	227	215	1319	38
Sun reduction		0.50	0.43	0.26	0.08	0.07
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.66	0.66	0.60	0.60	0.61
Total reduction		0.30	0.26	0.14	0.05	0.04
Total, real		155	59	31	60	1

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

January		February		March		April		May		June	
1	08:51	08:15	08:45 (C15)	07:11	06:49			05:33		06:50 (C13)	04:36
	15:48	16:45	45 10:02 (C14)	17:48	19:53			20:55	24	07:14 (C13)	21:53
2	08:50	08:13	08:43 (C15)	07:08	06:46			05:30		06:52 (C13)	04:35
	15:49	16:48	52 10:03 (C14)	17:50	19:55			20:57	20	07:12 (C13)	21:54
3	08:50	08:11	08:41 (C15)	07:06	06:43			05:28		06:54 (C13)	04:34
	15:51	16:50	56 10:03 (C14)	17:52	19:57			21:00	16	07:10 (C13)	21:55
4	08:50	08:09	08:39 (C15)	07:03	06:41			05:26		06:57 (C13)	04:33
	15:52	16:52	60 10:04 (C14)	17:54	19:59			21:02	10	07:07 (C13)	21:57
5	08:49	08:07	08:37 (C15)	07:01	06:38			05:23			04:32
	15:53	16:54	63 10:04 (C14)	17:56	20:01			21:04			21:58
6	08:49	08:05	08:36 (C15)	06:58	06:35			05:21			04:31
	15:55	16:56	64 10:03 (C14)	17:58	20:03			21:06			21:59
7	08:48	08:03	08:35 (C15)	06:55	06:33			05:19			04:30
	15:56	16:59	66 10:04 (C14)	18:01	20:06			21:08			22:00
8	08:48	08:01	08:35 (C15)	06:53	06:30			05:17			04:29
	15:58	17:01	67 10:04 (C14)	18:03	20:08			21:10			22:01
9	08:47	07:58	08:35 (C15)	06:50	06:28		07:01 (C13)	05:15			04:29
	16:00	17:03	66 10:03 (C14)	18:05	20:10	13	07:14 (C13)	21:12			22:02
10	08:46	07:56	08:35 (C15)	06:47	06:25		06:58 (C13)	05:13			04:28
	16:01	17:05	66 10:03 (C14)	18:07	20:12	19	07:17 (C13)	21:14			22:03
11	08:45	07:54	08:35 (C15)	06:45	06:22		06:56 (C13)	05:11			04:27
	16:03	17:08	65 10:03 (C14)	18:09	20:14	23	07:19 (C13)	21:16			22:04
12	08:44	07:52	08:35 (C15)	06:42	06:20		06:53 (C13)	05:09			04:27
	16:05	17:10	63 10:02 (C14)	18:11	20:16	27	07:20 (C13)	21:18			22:05
13	08:43	07:50	08:35 (C15)	06:40	06:17		06:52 (C13)	05:07			04:26
	16:06	17:12	62 10:01 (C14)	18:13	20:18	29	07:21 (C13)	21:20			22:06
14	08:42	07:47	08:35 (C15)	06:37	06:15		06:51 (C13)	05:05			04:26
	16:08	17:14	59 10:00 (C14)	18:15	20:20	31	07:22 (C13)	21:22			22:07
15	08:41	07:45	08:37 (C15)	06:34	06:12		06:50 (C13)	05:03			04:26
	16:10	17:17	55 09:59 (C14)	18:18	20:22	33	07:23 (C13)	21:24			22:07
16	08:40	07:43	08:37 (C15)	06:32	06:09		06:49 (C13)	05:01			04:26
	16:12	17:19	52 09:58 (C14)	18:20	20:24	34	07:23 (C13)	21:25			22:08
17	08:39	09:32 (C14)	07:40	08:39 (C15)	06:29		06:48 (C13)	04:59			04:25
	16:14	10 09:42 (C14)	17:21	09:56 (C14)	18:22	20:26	35 07:23 (C13)	21:27			22:08
18	08:37	09:30 (C14)	07:38	08:40 (C15)	06:26	06:04	06:47 (C13)	04:57			04:25
	16:16	16 09:46 (C14)	17:23	09:54 (C14)	18:24	20:28	36 07:23 (C13)	21:29			22:09
19	08:36	09:28 (C14)	07:36	08:43 (C15)	06:24	06:02	06:47 (C13)	04:55			04:25
	16:18	20 09:48 (C14)	17:26	09:52 (C14)	18:26	20:30	36 07:23 (C13)	21:31			22:09
20	08:35	09:28 (C14)	07:33	09:35 (C14)	06:21	05:59	06:47 (C13)	04:53			04:25
	16:20	22 09:50 (C14)	17:28	09:48 (C14)	18:28	20:33	37 07:24 (C13)	21:33			22:10
21	08:33	09:26 (C14)	07:31		06:18	05:57	06:46 (C13)	04:52			04:25
	16:22	26 09:52 (C14)	17:30		18:30	20:35	37 07:23 (C13)	21:35			22:10
22	08:32	09:25 (C14)	07:28		06:16	05:54	06:47 (C13)	04:50			04:26
	16:24	28 09:53 (C14)	17:32		18:32	20:37	36 07:23 (C13)	21:37			22:10
23	08:30	09:24 (C14)	07:26		06:13	05:52	06:46 (C13)	04:48			04:26
	16:26	30 09:54 (C14)	17:34		18:34	20:39	36 07:22 (C13)	21:38			22:10
24	08:29	09:24 (C14)	07:23		06:10	05:49	06:46 (C13)	04:47			04:26
	16:28	32 09:56 (C14)	17:37		18:36	20:41	36 07:22 (C13)	21:40			22:10
25	08:27	09:24 (C14)	07:21		06:08	05:47	06:47 (C13)	04:45			04:26
	16:30	33 09:57 (C14)	17:39		18:38	20:43	34 07:21 (C13)	21:42			22:10
26	08:26	09:23 (C14)	07:18		06:05	05:44	06:46 (C13)	04:44			04:27
	16:32	35 09:58 (C14)	17:41		18:41	20:45	34 07:20 (C13)	21:43			22:10
27	08:24	09:22 (C14)	07:16		06:02	05:42	06:47 (C13)	04:42			04:27
	16:34	37 09:59 (C14)	17:43		18:43	20:47	32 07:19 (C13)	21:45			22:10
28	08:22	09:22 (C14)	07:13		05:59	05:40	06:48 (C13)	04:41			04:28
	16:37	38 10:00 (C14)	17:45		18:45	20:49	30 07:18 (C13)	21:47			22:10
29	08:20	09:22 (C14)			06:57	05:37	06:49 (C13)	04:40			04:29
	16:39	39 10:01 (C14)			19:47	20:51	29 07:18 (C13)	21:48			22:10
30	08:18	09:21 (C14)			06:54	05:35	06:49 (C13)	04:38			04:29
	16:41	41 10:02 (C14)			19:49	20:53	26 07:15 (C13)	21:50			22:09
31	08:17	09:21 (C14)			06:51			04:37			
	16:43	41 10:02 (C14)			19:51			21:51			
Potential sun hours	235		266		366	426		508		529	
Total, worst case	448		1086			683		70			
Sun reduction	0.13		0.20			0.50		0.57			
Oper. time red.	0.94		0.94			0.94		0.94			
Wind dir. red.	0.60		0.60			0.66		0.66			
Total reduction	0.07		0.11			0.30		0.34			
Total, real	33		121			206		24			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:55 (C13)	07:17	07:23
	22:09	21:28	20:14	23 07:18 (C13)	18:54	16:36
2	04:31	05:18	06:19	06:57 (C13)	07:19	07:25
	22:08	21:26	20:11	19 07:16 (C13)	18:51	16:34
3	04:32	05:20	06:21	06:59 (C13)	07:21	07:27
	22:08	21:24	20:09	13 07:12 (C13)	18:48	16:32
4	04:33	05:22	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	21:20	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		07:30	07:36
	22:05	21:15	19:58		18:38	16:23
8	04:37	05:29	06:31		07:32	07:38
	22:04	21:13	19:55		18:35	16:21
9	04:38	05:31	07:05 (C13)	06:33	07:34	07:40
	22:03	21:11	13 07:18 (C13)	19:53	18:32	16:19
10	04:39	05:33	07:03 (C13)	06:35	07:36	07:42
	22:02	21:08	17 07:20 (C13)	19:50	18:30	16:17
11	04:41	05:35	07:00 (C13)	06:37	07:38	07:44
	22:01	21:06	21 07:21 (C13)	19:47	18:27	16:15
12	04:42	05:37	06:58 (C13)	06:39	07:40	07:46
	22:00	21:04	25 07:23 (C13)	19:45	18:25	16:13
13	04:43	05:39	06:57 (C13)	06:41	07:42	07:49
	21:59	21:02	27 07:24 (C13)	19:42	18:22	16:11
14	04:45	05:41	06:56 (C13)	06:43	07:44	07:51
	21:58	20:59	29 07:25 (C13)	19:39	18:20	16:09
15	04:46	05:43	06:55 (C13)	06:45	07:46	07:53
	21:57	20:57	31 07:26 (C13)	19:37	18:17	16:08
16	04:48	05:45	06:55 (C13)	06:47	07:48	07:55
	21:55	20:54	32 07:27 (C13)	19:34	18:14	16:06
17	04:49	05:47	06:54 (C13)	06:49	07:50	07:57
	21:54	20:52	33 07:27 (C13)	19:31	18:12	16:04
18	04:51	05:49	06:52 (C13)	06:51	07:52	07:59
	21:52	20:50	35 07:27 (C13)	19:29	18:09	16:02
19	04:53	05:51	06:52 (C13)	06:53	07:55	08:01
	21:51	20:47	35 07:27 (C13)	19:26	18:07	16:01
20	04:54	05:53	06:51 (C13)	06:55	07:57	08:03
	21:49	20:45	36 07:27 (C13)	19:23	18:04	15:59
21	04:56	05:55	06:51 (C13)	06:57	07:59	08:05
	21:48	20:42	36 07:27 (C13)	19:21	18:02	15:58
22	04:58	05:57	06:51 (C13)	06:59	08:01	10:04 (C14)
	21:46	20:40	36 07:27 (C13)	19:18	18:00	15 10:19 (C14)
23	04:59	05:59	06:51 (C13)	07:01	08:03	09:12 (C15)
	21:45	20:37	36 07:27 (C13)	19:15	17:57	31 10:23 (C14)
24	05:01	06:01	06:51 (C13)	07:03	08:05	09:10 (C15)
	21:43	20:35	36 07:27 (C13)	19:12	17:55	40 10:25 (C14)
25	05:03	06:03	06:51 (C13)	07:05	08:07	09:10 (C15)
	21:41	20:32	36 07:27 (C13)	19:10	17:52	47 09:26 (C14)
26	05:05	06:05	06:51 (C13)	07:07	08:09	09:10 (C15)
	21:39	20:30	35 07:26 (C13)	19:07	17:50	52 09:28 (C14)
27	05:06	06:07	06:51 (C13)	07:09	08:11	09:10 (C15)
	21:38	20:27	33 07:24 (C13)	19:04	17:48	56 09:29 (C14)
28	05:08	06:09	06:51 (C13)	07:11	08:13	09:10 (C15)
	21:36	20:24	32 07:23 (C13)	19:02	17:46	60 09:30 (C14)
29	05:10	06:11	06:52 (C13)	07:13	08:15	09:10 (C15)
	21:34	20:22	30 07:22 (C13)	18:59	17:43	62 09:31 (C14)
30	05:12	06:13	06:52 (C13)	07:15	08:17	09:10 (C15)
	21:32	20:19	29 07:21 (C13)	18:56	17:41	64 09:31 (C14)
31	05:14	06:15	06:53 (C13)		08:19	09:10 (C15)
	21:30	20:17	27 07:20 (C13)		16:38	66 09:32 (C14)
Potential sun hours	529	469	385	324	247	216
Total, worst case		700	55	493	1052	
Sun reduction		0.50	0.43	0.26	0.08	
Oper. time red.		0.94	0.94	0.94	0.94	
Wind dir. red.		0.66	0.66	0.60	0.60	
Total reduction		0.30	0.26	0.14	0.05	
Total, real		211	14	71	48	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	06:51 (C14) 18:54	07:17 16:36	07:23 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	06:51 (C14) 18:51	07:19 16:34	07:25 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	06:51 (C14) 18:48	07:21 16:32	07:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	06:53 (C14) 18:46	07:23 16:30	07:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	06:55 (C14) 18:43	07:26 16:27	07:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	06:57 (C14) 18:40	07:28 16:25	07:33 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	06:58 (C14) 18:38	07:30 16:23	07:36 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:03 (C14) 18:35	07:32 16:21	07:38 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	06:59 (C14) 19:15	07:01 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	06:57 (C14) 19:12	07:03 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	06:55 (C14) 19:10	07:05 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	04:27 22:10	05:05 21:39	06:05 20:30	06:54 (C14) 19:07	07:07 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:07 21:38	06:07 20:27	06:53 (C14) 19:04	07:09 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	06:52 (C14) 19:02	07:11 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:07 17:47	05:57 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	06:51 (C14) 18:59	07:13 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:04 17:49	05:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	06:51 (C14) 18:56	07:15 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:01 17:51	05:52 18:51	05:33 20:54	04:37 21:51	04:30 22:10	05:14 20:17	06:15 20:17	06:51 (C14) 18:56	07:20 16:38	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case				306				194	118			
Sun reduction				0.50				0.50	0.43			
Oper. time red.				0.94				0.94	0.94			
Wind dir. red.				0.66				0.66	0.66			
Total reduction				0.31				0.31	0.26			
Total, real				95				60	31			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

January				February				March				April				May				June			
1	08:51		09:58 (C14)	08:15		07:11						06:49		08:06 (C13)	05:33		04:36						
	15:48	31	10:29 (C14)	16:45		17:48						19:53	21	08:27 (C13)	20:55		21:53						
2	08:50		09:58 (C14)	08:13		07:08						06:46		08:08 (C13)	05:30		04:35						
	15:49	32	10:30 (C14)	16:48		17:50						19:55	16	08:24 (C13)	20:58		21:54						
3	08:50		09:58 (C14)	08:11		07:06						06:43		08:13 (C13)	05:28		04:34						
	15:51	32	10:30 (C14)	16:50		17:52						19:57	6	08:19 (C13)	21:00		21:55						
4	08:50		09:58 (C14)	08:09		07:03						06:41			05:26		04:33						
	15:52	32	10:30 (C14)	16:52		17:54						19:59			21:02		21:57						
5	08:49		09:59 (C14)	08:07		07:01						06:38			05:23		04:32						
	15:53	33	10:32 (C14)	16:54		17:56						20:01			21:04		21:58						
6	08:49		09:59 (C14)	08:05		06:58						06:35			05:21		04:31						
	15:55	33	10:32 (C14)	16:56		17:58						20:03			21:06		21:59						
7	08:48		10:00 (C14)	08:03		06:55						06:33			05:19		04:30						
	15:56	32	10:32 (C14)	16:59		18:01						20:06			21:08		22:00						
8	08:48		10:00 (C14)	08:01		06:53						06:30			05:17		04:29						
	15:58	33	10:33 (C14)	17:01		18:03						20:08			21:10		22:01						
9	08:47		10:00 (C14)	07:58		06:50						06:28			05:15		04:29						
	16:00	33	10:33 (C14)	17:03		18:05						20:10			21:12		22:02						
10	08:46		10:01 (C14)	07:56		06:47						06:25			05:13		04:28						
	16:01	33	10:34 (C14)	17:05		18:07						20:12			21:14		22:03						
11	08:45		10:01 (C14)	07:54		06:45						06:22			05:11		04:27						
	16:03	34	10:35 (C14)	17:08		18:09						20:14			21:16		22:04						
12	08:44		10:02 (C14)	07:52		06:42						07:20 (C13)			05:09		04:27						
	16:05	33	10:35 (C14)	17:10		18:11	7					07:27 (C13)			20:16		21:18						
13	08:43		10:01 (C14)	07:50		06:40						07:15 (C13)			06:17		05:07						
	16:06	34	10:35 (C14)	17:12		18:13	16					07:31 (C13)			20:18		21:20						
14	08:42		10:02 (C14)	07:47		06:37						07:12 (C13)			06:15		05:05						
	16:08	34	10:36 (C14)	17:14		18:15	21					07:33 (C13)			20:20		21:22						
15	08:41		10:02 (C14)	07:45		06:34						07:10 (C13)			06:12		05:03						
	16:10	33	10:35 (C14)	17:17		18:18	25					07:35 (C13)			20:22		21:24						
16	08:40		10:03 (C14)	07:43		06:32						07:08 (C13)			06:09		05:01						
	16:12	33	10:36 (C14)	17:19		18:20	28					07:36 (C13)			20:24		21:25						
17	08:39		10:04 (C14)	07:40		06:29						07:06 (C13)			06:07		04:59						
	16:14	33	10:37 (C14)	17:21		18:22	30					07:36 (C13)			20:26		21:27						
18	08:38		10:04 (C14)	07:38		06:26						07:05 (C13)			06:04		04:57						
	16:16	32	10:36 (C14)	17:23		18:24	32					07:37 (C13)			20:28		21:29						
19	08:36		10:04 (C14)	07:36		06:24						07:05 (C13)			06:02		04:55						
	16:18	32	10:36 (C14)	17:26		18:26	33					07:38 (C13)			20:30		21:31						
20	08:35		10:06 (C14)	07:33		06:21						07:03 (C13)			05:59		04:53						
	16:20	31	10:37 (C14)	17:28		18:28	35					07:38 (C13)			20:33		21:33						
21	08:33		10:06 (C14)	07:31		06:18						07:03 (C13)			05:57		04:52						
	16:22	30	10:36 (C14)	17:30		18:30	34					07:37 (C13)			20:35		21:35						
22	08:32		10:06 (C14)	07:28		06:16						07:03 (C13)			05:54		04:50						
	16:24	30	10:36 (C14)	17:32		18:32	35					07:38 (C13)			20:37		21:37						
23	08:30		10:07 (C14)	07:26		06:13						07:02 (C13)			05:52		04:48						
	16:26	28	10:35 (C14)	17:34		18:34	35					07:37 (C13)			20:39		21:38						
24	08:29		10:09 (C14)	07:23		06:10						07:01 (C13)			05:49		04:47						
	16:28	26	10:35 (C14)	17:37		18:36	36					07:37 (C13)			20:41		21:40						
25	08:27		10:10 (C14)	07:21		06:08						07:02 (C13)			05:47		04:45						
	16:30	25	10:35 (C14)	17:39		18:38	35					07:37 (C13)			20:43		21:42						
26	08:26		10:11 (C14)	07:18		06:05						07:02 (C13)			05:44		04:44						
	16:32	23	10:34 (C14)	17:41		18:41	34					07:36 (C13)			20:45		21:43						
27	08:24		10:13 (C14)	07:16		06:02						07:02 (C13)			05:42		04:42						
	16:34	20	10:33 (C14)	17:43		18:43	33					07:35 (C13)			20:47		21:45						
28	08:22		10:15 (C14)	07:13		05:59						07:03 (C13)			05:40		04:41						
	16:37	16	10:31 (C14)	17:45		18:45	31					07:34 (C13)			20:49		21:47						
29	08:20		10:17 (C14)			06:57						08:03 (C13)			05:37		04:40						
	16:39	12	10:29 (C14)			19:47	30					08:33 (C13)			20:51		21:48						
30	08:19					06:54						08:03 (C13)			05:35		04:38						
	16:41					19:49	28					08:31 (C13)			20:53		21:50						
31	08:17					06:51						08:05 (C13)					04:37						
	16:43					19:51	25					08:30 (C13)					21:51						
Potential sun hours	235			266		366						426					508						
Total, worst case		863				583											43						
Sun reduction		0.13				0.41											0.50						
Oper. time red.		0.94				0.94											0.94						
Wind dir. red.		0.61				0.63											0.63						
Total reduction		0.08				0.24											0.29						
Total, real		66				141											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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	07:56 (C13)	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	08:07 (C13)	07:40	08:37
	22:03	21:11	19:53	08:12 (C13)	16:19	15:39
10	04:39	05:33	06:35	08:02 (C13)	07:42	08:38
	22:02	21:08	19:50	08:17 (C13)	16:17	15:39
11	04:41	05:35	06:37	07:59 (C13)	07:44	08:39
	22:01	21:06	19:47	08:19 (C13)	16:15	15:39
12	04:42	05:37	06:39	07:57 (C13)	07:46	08:40
	22:00	21:04	19:45	08:21 (C13)	16:13	15:38
13	04:43	05:39	06:41	07:55 (C13)	07:49	08:42
	21:59	21:02	19:42	08:22 (C13)	16:11	15:38
14	04:45	05:41	06:43	07:53 (C13)	07:51	09:47 (C14)
	21:58	20:59	19:39	08:23 (C13)	16:09	15:38
15	04:46	05:43	06:45	07:52 (C13)	07:53	09:45 (C14)
	21:57	20:57	19:37	08:23 (C13)	16:08	15:38
16	04:48	05:45	06:47	07:51 (C13)	07:55	09:44 (C14)
	21:55	20:54	19:34	08:24 (C13)	16:06	15:38
17	04:49	05:47	06:49	07:50 (C13)	07:57	09:43 (C14)
	21:54	20:52	19:31	08:24 (C13)	16:04	15:38
18	04:51	05:49	06:51	07:50 (C13)	07:59	09:43 (C14)
	21:52	20:50	19:29	08:24 (C13)	16:02	15:38
19	04:53	05:51	06:53	07:49 (C13)	08:01	09:42 (C14)
	21:51	20:47	19:26	08:24 (C13)	16:01	15:38
20	04:54	05:53	06:55	07:49 (C13)	08:03	09:41 (C14)
	21:49	20:45	19:23	08:24 (C13)	15:59	15:39
21	04:56	05:55	06:57	07:48 (C13)	08:05	09:41 (C14)
	21:48	20:42	19:21	08:24 (C13)	15:58	15:39
22	04:58	05:57	06:59	07:48 (C13)	08:07	09:42 (C14)
	21:46	20:40	19:18	08:23 (C13)	15:56	15:39
23	04:59	05:59	07:01	07:48 (C13)	08:09	09:41 (C14)
	21:45	20:37	19:15	08:22 (C13)	15:55	15:40
24	05:01	06:01	07:03	07:48 (C13)	08:11	09:41 (C14)
	21:43	20:35	19:12	08:22 (C13)	15:53	15:41
25	05:03	06:03	07:05	07:48 (C13)	08:13	09:41 (C14)
	21:41	20:32	19:10	08:21 (C13)	15:52	15:41
26	05:05	06:05	07:07	07:49 (C13)	08:15	09:41 (C14)
	21:39	20:30	19:07	08:19 (C13)	15:51	15:42
27	05:06	06:07	07:09	07:50 (C13)	08:17	09:42 (C14)
	21:38	20:27	19:04	08:18 (C13)	15:49	15:43
28	05:08	06:09	07:11	07:50 (C13)	08:19	09:42 (C14)
	21:36	20:24	19:02	08:16 (C13)	15:48	15:44
29	05:10	06:11	07:13	07:52 (C13)	08:21	09:42 (C14)
	21:34	20:22	18:59	08:14 (C13)	15:47	15:45
30	05:12	06:13	07:15	07:54 (C13)	08:22	09:43 (C14)
	21:32	20:19	18:56	08:12 (C13)	15:46	15:46
31	05:14	06:15		07:20		08:51
	21:30	20:17		16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			619	12	505	962
Sun reduction			0.43	0.26	0.08	0.07
Oper. time red.			0.94	0.94	0.94	0.94
Wind dir. red.			0.63	0.63	0.61	0.61
Total reduction			0.25	0.15	0.05	0.04
Total, real			155	2	24	39

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April		May		June
1	08:51	08:15	07:11		06:49		05:32		07:10 (C1) 04:36
	15:48	16:45	17:47		19:53		20:55	21	07:31 (C1) 21:53
2	08:50	08:13	07:08		06:46		05:30		07:12 (C1) 04:35
	15:49	16:47	17:50		19:55		20:57	17	07:29 (C1) 21:54
3	08:50	08:11	07:06		06:43		05:28		07:16 (C1) 04:34
	15:51	16:50	17:52		19:57		21:00	9	07:25 (C1) 21:55
4	08:50	08:09	07:03		06:41		05:26		04:33
	15:52	16:52	17:54		19:59		21:02		21:57
5	08:49	08:07	07:00		06:38		05:23		04:32
	15:53	16:54	17:56		20:01	15	07:35 (C1) 21:04		21:58
6	08:49	08:05	06:58		06:35		05:21		04:31
	15:55	16:56	17:58		20:03	21	07:38 (C1) 21:06		21:59
7	08:48	08:03	06:55		06:33		05:19		04:30
	15:56	16:59	18:00		20:05	26	07:40 (C1) 21:08		22:00
8	08:48	08:00	06:53		06:30		05:17		04:29
	15:58	17:01	18:03	6	07:24 (C4) 20:08	29	07:41 (C1) 21:10		22:01
9	08:47	07:58	06:50		06:27		05:15		04:28
	15:59	17:03	18:05	11	07:27 (C4) 20:10	31	07:42 (C1) 21:12		22:02
10	08:46	07:56	06:47		06:25		05:12		04:28
	16:01	17:05	18:07	15	07:28 (C4) 20:12	34	07:43 (C1) 21:14		22:03
11	08:45	07:54	06:45		06:22		05:10		04:27
	16:03	17:08	18:09	19	07:29 (C4) 20:14	36	07:44 (C1) 21:16		22:04
12	08:44	07:52	06:42		06:20		05:08		04:27
	16:04	17:10	18:11	20	07:30 (C4) 20:16	37	07:44 (C1) 21:18		22:05
13	08:43	07:49	06:39		06:17		05:06		04:26
	16:06	17:12	18:13	21	07:30 (C4) 20:18	39	07:45 (C1) 21:20		22:06
14	08:42	07:47	06:37		06:14		05:04		04:26
	16:08	17:14	18:15	21	07:29 (C4) 20:20	40	07:45 (C1) 21:22		22:07
15	08:41	07:45	06:34		06:12		05:02		04:26
	16:10	17:17	18:17	22	07:29 (C4) 20:22	40	07:45 (C1) 21:24		22:07
16	08:40	07:43	06:32		06:09		05:01		04:25
	16:12	17:19	18:20	21	07:29 (C4) 20:24	41	07:45 (C1) 21:25		22:08
17	08:39	07:40	06:29		06:07		04:59		04:25
	16:14	17:21	18:22	20	07:28 (C4) 20:26	41	07:45 (C1) 21:27		22:08
18	08:37	07:38	06:26		06:04		04:57		04:25
	16:16	17:23	18:24	18	07:26 (C4) 20:28	41	07:44 (C1) 21:29		22:09
19	08:36	07:35	06:23		06:02		04:55		04:25
	16:18	17:25	18:26	16	07:26 (C4) 20:30	41	07:44 (C1) 21:31		22:09
20	08:35	07:33	06:21		05:59		04:53		04:25
	16:20	17:28	18:28	12	07:23 (C4) 20:33	41	07:43 (C1) 21:33		22:10
21	08:33	07:31	06:18		05:57		04:52		04:25
	16:22	17:30	18:30	5	07:19 (C4) 20:35	40	07:43 (C1) 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	40	07:43 (C1) 21:37		22:10
23	08:30	07:26	06:13		05:52		04:48		04:26
	16:26	17:34	18:34		20:39	39	07:42 (C1) 21:38		22:10
24	08:29	07:23	06:10		05:49		04:47		04:26
	16:28	17:37	18:36		20:41	37	07:41 (C1) 21:40		22:10
25	08:27	07:21	06:07		05:47		04:45		04:26
	16:30	17:39	18:38		20:43	37	07:41 (C1) 21:42		22:10
26	08:26	07:18	06:05		05:44		04:44		04:27
	16:32	17:41	18:40		20:45	35	07:39 (C1) 21:43		22:10
27	08:24	07:16	06:02		05:42		04:42		04:27
	16:34	17:43	18:43		20:47	33	07:38 (C1) 21:45		22:10
28	08:22	07:13	05:59		05:39		04:41		04:28
	16:36	17:45	18:45		20:49	31	07:37 (C1) 21:47		22:10
29	08:20		06:57		05:37		04:39		04:28
	16:39		19:47		20:51	28	07:36 (C1) 21:48		22:10
30	08:18		06:54		05:35		04:38		04:29
	16:41		19:49		20:53	25	07:33 (C1) 21:50		22:09
31	08:17		06:51				04:37		
	16:43		19:51				21:51		
Potential sun hours	235	266	366		426		508		529
Total, worst case			227		898		47		
Sun reduction			0.41		0.50		0.57		
Oper. time red.			0.94		0.94		0.94		
Wind dir. red.			0.62		0.66		0.66		
Total reduction			0.24		0.31		0.35		
Total, real			55		277		16		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:07 (C1)	07:17	07:49 (C4)
	22:09	21:28	20:14	18:54	20	08:09 (C4)
2	04:31	05:17	06:19	07:08 (C1)	07:19	07:49 (C4)
	22:09	21:26	20:11	18:51	19	08:08 (C4)
3	04:32	05:19	06:21	07:09 (C1)	07:21	07:50 (C4)
	22:08	21:24	20:09	18:48	17	08:07 (C4)
4	04:33	05:21	06:23	07:10 (C1)	07:23	07:52 (C4)
	22:07	21:22	20:06	18:46	13	08:05 (C4)
5	04:33	05:23	06:25	07:10 (C1)	07:25	07:54 (C4)
	22:07	21:19	20:03	18:43	9	08:03 (C4)
6	04:35	05:25	06:27	07:12 (C1)	07:27	07:56 (C4)
	22:06	21:17	20:01	18:40		16:25
7	04:36	05:27	06:29	07:15 (C1)	07:29	07:56 (C4)
	22:05	21:15	19:58	18:38		16:23
8	04:37	05:29	06:31	07:21 (C1)	07:32	07:58 (C4)
	22:04	21:13	19:55	18:35		16:21
9	04:38	05:31	06:33	07:24 (C1)	07:34	07:59 (C4)
	22:03	21:11	19:53	18:32		16:19
10	04:39	05:33	06:35	07:25 (C1)	07:36	07:59 (C4)
	22:02	21:08	19:50	18:30		16:17
11	04:41	05:35	06:37	07:26 (C1)	07:38	07:59 (C4)
	22:01	21:06	19:47	18:27		16:15
12	04:42	05:37	06:39	07:27 (C1)	07:40	07:59 (C4)
	22:00	21:04	19:45	18:25		16:13
13	04:43	05:39	06:41	07:28 (C1)	07:42	07:59 (C4)
	21:59	21:01	19:42	18:22		16:11
14	04:45	05:41	06:43	07:29 (C1)	07:44	07:59 (C4)
	21:58	20:59	19:39	18:19		16:09
15	04:46	05:43	06:45	07:30 (C1)	07:46	07:59 (C4)
	21:57	20:57	19:37	18:17		16:07
16	04:48	05:45	06:47	07:31 (C1)	07:48	07:59 (C4)
	21:55	20:54	19:34	18:14		16:06
17	04:49	05:47	06:49	07:32 (C1)	07:50	07:59 (C4)
	21:54	20:52	19:31	18:12		16:04
18	04:51	05:49	06:51	07:33 (C1)	07:52	07:59 (C4)
	21:52	20:50	19:29	18:09		16:02
19	04:52	05:51	06:53	07:34 (C1)	07:55	07:59 (C4)
	21:51	20:47	19:26	18:07		16:01
20	04:54	05:53	06:55	07:35 (C1)	07:57	07:59 (C4)
	21:49	20:45	19:23	18:04		15:59
21	04:56	05:55	06:57	07:36 (C1)	07:59	07:59 (C4)
	21:48	20:42	19:20	18:02		15:58
22	04:57	05:57	06:59	07:37 (C1)	08:01	07:59 (C4)
	21:46	20:40	19:18	17:59		15:56
23	04:59	05:59	07:01	07:38 (C1)	08:03	07:59 (C4)
	21:45	20:37	19:15	17:57		15:55
24	05:01	06:01	07:03	07:39 (C1)	08:05	07:59 (C4)
	21:43	20:35	19:12	17:55		15:53
25	05:03	06:03	07:05	07:40 (C1)	08:07	07:59 (C4)
	21:41	20:32	19:10	17:52		15:52
26	05:04	06:05	07:07	07:41 (C1)	08:09	07:59 (C4)
	21:39	20:29	19:07	17:50		15:51
27	05:06	06:07	07:09	07:42 (C1)	08:11	07:59 (C4)
	21:38	20:27	19:04	17:47		15:49
28	05:08	06:09	07:11	07:43 (C1)	08:13	07:59 (C4)
	21:36	20:24	19:02	17:45		15:48
29	05:10	06:11	07:13	07:44 (C1)	08:15	07:59 (C4)
	21:34	20:22	18:59	17:43		15:47
30	05:12	06:13	07:15	07:45 (C1)	08:17	07:59 (C4)
	21:32	20:19	18:56	17:41		15:46
31	05:14	06:15	07:17	07:46 (C1)	08:19	07:59 (C4)
	21:30	20:17	18:54	17:38		15:44
Potential sun hours	529	469	385	324	247	216
Total, worst case		759	344	78		106
Sun reduction		0.50	0.43	0.26		0.07
Oper. time red.		0.94	0.94	0.94		0.94
Wind dir. red.		0.66	0.64	0.62		0.63
Total reduction		0.31	0.26	0.15		0.04
Total, real		234	89	12		4

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January		February		March	April	May	June
1	08:51	10:06 (C13)	08:15	10:09 (C13)	07:11	06:49	05:33	04:36
	15:48	27 10:33 (C13)	16:45	40 10:49 (C13)	17:48	19:53	20:55	21:53
2	08:50	10:06 (C13)	08:13	10:10 (C13)	07:08	06:46	05:30	04:35
	15:49	28 10:34 (C13)	16:47	39 10:49 (C13)	17:50	19:55	20:57	21:54
3	08:50	10:06 (C13)	08:11	10:11 (C13)	07:06	06:43	05:28	04:34
	15:51	29 10:35 (C13)	16:50	38 10:49 (C13)	17:52	19:57	21:00	21:55
4	08:50	10:05 (C13)	08:09	10:12 (C13)	07:03	06:41	05:26	04:33
	15:52	30 10:35 (C13)	16:52	36 10:48 (C13)	17:54	19:59	21:02	21:57
5	08:49	10:06 (C13)	08:07	10:13 (C13)	07:00	06:38	05:23	04:32
	15:53	31 10:37 (C13)	16:54	35 10:48 (C13)	17:56	20:01	21:04	21:58
6	08:49	10:06 (C13)	08:05	10:13 (C13)	06:58	06:35	05:21	04:31
	15:55	32 10:38 (C13)	16:56	33 10:46 (C13)	17:58	20:03	21:06	21:59
7	08:48	10:06 (C13)	08:03	10:15 (C13)	06:55	06:33	05:19	04:30
	15:56	32 10:38 (C13)	16:59	30 10:45 (C13)	18:00	20:05	21:08	22:00
8	08:48	10:06 (C13)	08:01	10:17 (C13)	06:53	06:30	05:17	04:29
	15:58	33 10:39 (C13)	17:01	27 10:44 (C13)	18:03	20:08	21:10	22:01
9	08:47	10:05 (C13)	07:58	10:18 (C13)	06:50	06:28	05:15	04:29
	15:59	35 10:40 (C13)	17:03	24 10:42 (C13)	18:05	20:10	21:12	22:02
10	08:46	10:06 (C13)	07:56	10:21 (C13)	06:47	06:25	05:13	04:28
	16:01	35 10:41 (C13)	17:05	18 10:39 (C13)	18:07	20:12	21:14	22:03
11	08:45	10:06 (C13)	07:54	10:25 (C13)	06:45	06:22	05:11	04:27
	16:03	36 10:42 (C13)	17:08	11 10:36 (C13)	18:09	20:14	21:16	22:04
12	08:44	10:06 (C13)	07:52		06:42	06:20	05:08	04:27
	16:04	37 10:43 (C13)	17:10		18:11	20:16	21:18	22:05
13	08:43	10:05 (C13)	07:50		06:40	06:17	05:06	04:26
	16:06	38 10:43 (C13)	17:12		18:13	20:18	21:20	22:06
14	08:42	10:05 (C13)	07:47		06:37	06:14	05:04	04:26
	16:08	39 10:44 (C13)	17:14		18:15	20:20	21:22	22:07
15	08:41	10:05 (C13)	07:45		06:34	06:12	05:03	04:26
	16:10	39 10:44 (C13)	17:17		18:18	20:22	21:24	22:07
16	08:40	10:05 (C13)	07:43		06:32	06:09	05:01	04:25
	16:12	41 10:46 (C13)	17:19		18:20	20:24	21:25	22:08
17	08:39	10:06 (C13)	07:40		06:29	06:07	04:59	04:25
	16:14	41 10:47 (C13)	17:21		18:22	20:26	21:27	22:08
18	08:37	10:05 (C13)	07:38		06:26	06:04	04:57	04:25
	16:16	42 10:47 (C13)	17:23		18:24	20:28	21:29	22:09
19	08:36	10:05 (C13)	07:36		06:24	06:02	04:55	04:25
	16:18	42 10:47 (C13)	17:26		18:26	20:30	21:31	22:09
20	08:35	10:06 (C13)	07:33		06:21	05:59	04:53	04:25
	16:20	42 10:48 (C13)	17:28		18:28	20:33	21:33	22:10
21	08:33	10:06 (C13)	07:31		06:18	05:57	04:52	04:25
	16:22	43 10:49 (C13)	17:30		18:30	20:35	21:35	22:10
22	08:32	10:05 (C13)	07:28		06:16	05:54	04:50	04:25
	16:24	44 10:49 (C13)	17:32		18:32	20:37	21:37	22:10
23	08:30	10:05 (C13)	07:26		06:13	05:52	04:48	04:26
	16:26	44 10:49 (C13)	17:34		18:34	20:39	21:38	22:10
24	08:29	10:06 (C13)	07:23		06:10	05:49	04:47	04:26
	16:28	44 10:50 (C13)	17:37		18:36	20:41	21:40	22:10
25	08:27	10:07 (C13)	07:21		06:07	05:47	04:45	04:26
	16:30	43 10:50 (C13)	17:39		18:38	20:43	21:42	22:10
26	08:26	10:07 (C13)	07:18		06:05	05:44	04:44	04:27
	16:32	44 10:51 (C13)	17:41		18:41	20:45	21:43	22:10
27	08:24	10:07 (C13)	07:16		06:02	05:42	04:42	04:27
	16:34	44 10:51 (C13)	17:43		18:43	20:47	21:45	22:10
28	08:22	10:07 (C13)	07:13		05:59	05:40	04:41	04:28
	16:36	44 10:51 (C13)	17:45		18:45	20:49	21:47	22:10
29	08:20	10:08 (C13)			06:57	05:37	04:40	04:29
	16:39	43 10:51 (C13)			19:47	20:51	21:48	22:10
30	08:18	10:08 (C13)			06:54	05:35	04:38	04:29
	16:41	43 10:51 (C13)			19:49	20:53	21:50	22:09
31	08:17	10:09 (C13)			06:51		04:37	
	16:43	42 10:51 (C13)			19:51		21:51	
Potential sun hours	235		266		366	426	508	529
Total, worst case	1187		331					
Sun reduction	0.13		0.20					
Oper. time red.	0.94		0.94					
Wind dir. red.	0.61		0.61					
Total reduction	0.08		0.12					
Total, real	91		38					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	09:50 (C13) 10:09 (C13)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:47 (C13) 10:11 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:46 (C13) 10:14 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:44 (C13) 10:15 (C13)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:43 (C13) 10:16 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:42 (C13) 10:18 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:41 (C13) 10:18 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:41 (C13) 10:20 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:40 (C13) 10:20 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:41 (C13) 10:21 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:40 (C13) 10:21 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:39 (C13) 10:22 (C13)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:40 (C13) 10:23 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:39 (C13) 10:23 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:39 (C13) 10:23 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:40 (C13) 10:23 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:40 (C13) 10:23 (C13)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:40 (C13) 10:24 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:40 (C13) 10:24 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:40 (C13) 10:24 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:41 (C13) 10:24 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:42 (C13) 10:24 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:42 (C13) 10:24 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:42 (C13) 10:24 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	09:43 (C13) 10:24 (C13)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	09:43 (C13) 10:24 (C13)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47	08:17 15:49	09:45 (C13) 10:25 (C13)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	09:45 (C13) 10:24 (C13)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	09:46 (C13) 10:24 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	08:22 15:46	09:47 (C13) 10:24 (C13)
31	05:14 21:30	06:15 20:17		08:20 16:38	09:53 (C13) 10:05 (C13)	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case				12	1165	806
Sun reduction				0.26	0.08	0.07
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.61	0.61	0.61
Total reduction				0.15	0.05	0.04
Total, real				2	55	33

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April	May	June
1	08:51		10:16 (C1)	08:15	07:11				06:49	05:32	04:36	
	15:48	24	10:40 (C1)	16:45	17:47				19:53	20:55	21:53	
2	08:51		10:17 (C1)	08:13	07:08				06:46	05:30	04:34	
	15:49	23	10:40 (C1)	16:47	17:50				19:55	20:57	21:54	
3	08:50		10:17 (C1)	08:11	07:06			07:36 (C17)	06:43	05:28	04:33	
	15:50	23	10:40 (C1)	16:50	17:52		9	07:45 (C17)	19:57	21:00	21:55	
4	08:50		10:18 (C1)	08:09	07:03			07:32 (C17)	06:41	05:25	04:32	
	15:52	22	10:40 (C1)	16:52	17:54	16	07:48 (C17)	19:59	21:02	21:57		
5	08:49		10:19 (C1)	08:07	07:00			07:30 (C17)	06:38	05:23	04:31	
	15:53	22	10:41 (C1)	16:54	17:56	19	07:49 (C17)	20:01	21:04	21:58		
6	08:49		10:20 (C1)	08:05	06:58			07:29 (C17)	06:35	05:21	04:31	
	15:55	20	10:40 (C1)	16:56	17:58	22	07:51 (C17)	20:03	21:06	21:59		
7	08:48		10:21 (C1)	08:03	06:55			07:27 (C17)	06:33	05:19	04:30	
	15:56	19	10:40 (C1)	16:58	18:00	25	07:52 (C17)	20:05	21:08	22:00		
8	08:48		10:22 (C1)	08:01	06:53			07:25 (C17)	06:30	05:17	04:29	
	15:58	18	10:40 (C1)	17:01	18:03	27	07:52 (C17)	20:08	21:10	22:01		
9	08:47		10:23 (C1)	07:58	06:50			07:25 (C17)	06:27	05:15	04:28	
	15:59	17	10:40 (C1)	17:03	18:05	28	07:53 (C17)	20:10	21:12	22:02		
10	08:46		10:24 (C1)	07:56	06:47			07:24 (C17)	06:25	05:12	04:28	
	16:01	15	10:39 (C1)	17:05	18:07	29	07:53 (C17)	20:12	21:14	22:03		
11	08:45		10:26 (C1)	07:54	06:45			07:24 (C17)	06:22	05:10	04:27	
	16:03	13	10:39 (C1)	17:07	18:09	28	07:52 (C17)	20:14	21:16	22:04		
12	08:44		10:28 (C1)	07:52	06:42			07:24 (C17)	06:20	05:08	04:27	
	16:04	10	10:38 (C1)	17:10	18:11	29	07:53 (C17)	20:16	21:18	22:05		
13	08:43		10:29 (C1)	07:49	06:39			07:23 (C17)	06:17	05:06	04:26	
	16:06	7	10:36 (C1)	17:12	18:13	29	07:52 (C17)	20:18	21:20	22:06		
14	08:42			07:47	06:37			07:23 (C17)	06:14	05:04	04:26	
	16:08			17:14	18:15	28	07:51 (C17)	20:20	21:22	22:07		
15	08:41			07:45	06:34			07:23 (C17)	06:12	05:02	04:25	
	16:10			17:16	18:17	27	07:50 (C17)	20:22	21:24	22:07		
16	08:40			07:43	06:31			07:24 (C17)	06:09	05:00	04:25	
	16:12			17:19	18:20	26	07:50 (C17)	20:24	21:26	22:08		
17	08:39			07:40	06:29			07:24 (C17)	06:07	04:59	04:25	
	16:14			17:21	18:22	24	07:48 (C17)	20:26	21:27	22:09		
18	08:38			07:38	06:26			07:25 (C17)	06:04	04:57	04:25	
	16:15			17:23	18:24	22	07:47 (C17)	20:28	21:29	22:09		
19	08:36			07:35	06:23			07:27 (C17)	06:02	04:55	04:25	
	16:17			17:25	18:26	18	07:45 (C17)	20:30	21:31	22:09		
20	08:35			07:33	06:21			07:29 (C17)	05:59	04:53	04:25	
	16:19			17:28	18:28	13	07:42 (C17)	20:33	21:33	22:10		
21	08:33			07:31	06:18			07:34 (C17)	05:57	04:51	04:25	
	16:21			17:30	18:30	2	07:36 (C17)	20:35	21:35	22:10		
22	08:32			07:28	06:15				05:54	04:50	04:25	
	16:24			17:32	18:32				20:37	21:37	22:10	
23	08:30			07:26	06:13				05:52	04:48	04:25	
	16:26			17:34	18:34				20:39	21:38	22:10	
24	08:29			07:23	06:10				05:49	04:47	04:26	
	16:28			17:36	18:36				20:41	21:40	22:11	
25	08:27			07:21	06:07				05:47	04:45	04:26	
	16:30			17:39	18:38				20:43	21:42	22:11	
26	08:26			07:18	06:05				05:44	04:43	04:27	
	16:32			17:41	18:40				20:45	21:43	22:10	
27	08:24			07:16	06:02				05:42	04:42	04:27	
	16:34			17:43	18:43				20:47	21:45	22:10	
28	08:22			07:13	05:59				05:39	04:41	04:28	
	16:36			17:45	18:45				20:49	21:47	22:10	
29	08:20				06:57				05:37	04:39	04:28	
	16:38				19:47				20:51	21:48	22:10	
30	08:19				06:54				05:35	04:38	04:29	
	16:41				19:49				20:53	21:50	22:09	
31	08:17				06:51					04:37		
	16:43				19:51					21:51		
Potential sun hours	235			266	366				426	508	529	
Total, worst case		233			421							
Sun reduction		0.13			0.41							
Oper. time red.		0.94			0.94							
Wind dir. red.		0.61			0.62							
Total reduction		0.08			0.24							
Total, real		18			101							

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December	
1	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:54	08:03 (C17) 16:36	08:24 15:45	10:08 (C1) 10:21 (C1)
2	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	08:03 (C17) 16:34	08:26 15:44	10:07 (C1) 10:23 (C1)
3	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	08:02 (C17) 16:31	08:28 15:43	10:07 (C1) 10:24 (C1)
4	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	08:02 (C17) 16:29	08:29 15:42	10:06 (C1) 10:24 (C1)
5	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	08:02 (C17) 16:27	08:31 15:41	10:06 (C1) 10:25 (C1)
6	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	08:03 (C17) 16:25	08:32 15:41	10:06 (C1) 10:27 (C1)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	08:03 (C17) 16:23	08:34 15:40	10:05 (C1) 10:27 (C1)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	08:04 (C17) 16:21	08:35 15:40	10:06 (C1) 10:28 (C1)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	08:06 (C17) 16:19	08:37 15:39	10:07 (C1) 10:29 (C1)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:08 (C17) 16:17	08:38 15:39	10:06 (C1) 10:29 (C1)
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38	10:06 (C1) 10:30 (C1)
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	10:07 (C1) 10:31 (C1)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38	10:07 (C1) 10:31 (C1)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:38	10:07 (C1) 10:32 (C1)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:07	08:44 15:38	10:08 (C1) 10:32 (C1)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38	10:08 (C1) 10:33 (C1)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38	10:08 (C1) 10:33 (C1)
18	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38	10:09 (C1) 10:34 (C1)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38	10:10 (C1) 10:35 (C1)
20	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38	10:10 (C1) 10:35 (C1)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39	10:10 (C1) 10:36 (C1)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39	10:10 (C1) 10:36 (C1)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:40	10:11 (C1) 10:37 (C1)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40	10:12 (C1) 10:37 (C1)
25	05:02 21:41	06:03 20:32	07:05 19:10	08:08 (C17) 16:52	08:13 15:52	08:50 15:41	10:12 (C1) 10:37 (C1)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:07 (C17) 16:50	08:15 15:50	08:51 15:42	10:12 (C1) 10:37 (C1)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:06 (C17) 16:47	08:17 15:49	08:51 15:43	10:13 (C1) 10:38 (C1)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:05 (C17) 16:45	08:19 15:48	08:51 15:43	10:13 (C1) 10:38 (C1)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:04 (C17) 16:43	08:21 15:47	10:11 (C1) 10:16 (C1)	08:51 15:44
30	05:12 21:32	06:13 20:19	07:15 18:56	08:03 (C17) 16:40	08:22 15:46	10:09 (C1) 10:19 (C1)	08:51 15:45
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			181	243	15	715	
Sun reduction			0.43	0.26	0.08	0.07	
Oper. time red.			0.94	0.94	0.94	0.94	
Wind dir. red.			0.62	0.62	0.61	0.61	
Total reduction			0.25	0.15	0.05	0.04	
Total, real			45	37	1	29	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	07:37 (C1) 17:55 (C1)	06:49 19:53	05:32 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	07:35 (C1) 17:56 (C1)	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	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	07:35 (C1) 17:57 (C1)	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	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	07:34 (C1) 17:57 (C1)	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	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	07:33 (C1) 17:57 (C1)	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	08:31 15:41
6	08:49 15:55	08:05 16:56	06:58 17:58	07:33 (C1) 17:58 (C1)	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	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:00	07:32 (C1) 17:57 (C1)	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 18:35	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	07:32 (C1) 17:57 (C1)	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	08:35 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	07:33 (C1) 17:57 (C1)	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	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	07:33 (C1) 17:56 (C1)	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	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	07:33 (C1) 17:54 (C1)	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	08:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	07:35 (C1) 17:53 (C1)	06:20 20:16	05:08 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	07:36 (C1) 17:51 (C1)	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	07:38 (C1) 17:47 (C1)	06:14 20:20	05:04 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:02 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	06:45 18:17	07:46 17:48	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	06:47 18:14	07:55 17:50	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	06:49 18:12	07:57 17:52	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	06:51 18:09	07:59 17:55	08:46 15:38
19	08:36 16:18	07:36 17:25	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	06:53 18:07	08:01 17:57	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	06:55 18:04	08:03 17:59	08:48 15:38
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	06:57 18:02	08:05 17:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	06:59 17:59	08:07 17:56	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	07:01 17:57	08:09 17:55	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	07:03 17:55	08:11 17:53	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 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:05 17:52	08:13 17:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:30	07:07 19:07	07:10 17:50	08:15 17:51	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 17:47	08:17 17:49	08:51 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 17:45	08:19 17:48	08:51 15:44
29	08:20 16:39	07:10 17:46	05:57 18:47	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 17:43	08:21 17:47	08:51 15:44
30	08:19 16:41	07:04 17:49	05:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 17:40	08:22 17:46	08:51 15:45
31	08:17 16:43	07:01 17:51	05:51 19:51	05:31 20:53	04:37 21:51	04:27 22:10	05:14 21:30	06:15 20:17	07:16 18:58	07:20 17:38	08:23 17:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		23	293						18	309		
Sun reduction		0.20	0.41						0.43	0.26		
Oper. time red.		0.94	0.94						0.94	0.94		
Wind dir. red.		0.62	0.62						0.62	0.62		
Total reduction		0.12	0.24						0.25	0.15		
Total, real		3	71					5		47		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:55 (C14)	06:49	05:33
	15:48	16:45	17:48	29 08:24 (C14)	19:53	20:55
2	08:50	08:13	07:08	07:55 (C14)	06:46	05:30
	15:50	16:48	17:50	28 08:23 (C14)	19:55	20:58
3	08:50	08:11	07:06	07:56 (C14)	06:43	05:28
	15:51	16:50	17:52	27 08:23 (C14)	19:57	21:00
4	08:50	08:09	07:03	07:56 (C14)	06:41	05:26
	15:52	16:52	17:54	26 08:22 (C14)	19:59	21:02
5	08:49	08:07	07:01	07:57 (C14)	06:38	05:24
	15:54	16:54	17:56	23 08:20 (C14)	20:01	21:04
6	08:49	08:05	06:58	07:58 (C14)	06:36	05:21
	15:55	16:56	17:58	21 08:19 (C14)	20:03	21:06
7	08:48	08:03	06:55	08:00 (C14)	06:33	05:19
	15:56	16:59	18:01	17 08:17 (C14)	20:06	21:08
8	08:48	08:01	06:53	08:02 (C14)	06:30	05:17
	15:58	17:01	18:03	11 08:13 (C14)	20:08	21:10
9	08:47	07:58	06:50		06:28	06:53 (C13)
	16:00	17:03	18:05		20:10	9 07:02 (C13)
10	08:46	07:56	06:48		06:25	06:50 (C13)
	16:01	17:05	18:07		20:12	13 07:03 (C13)
11	08:45	07:54	06:45		06:22	06:48 (C13)
	16:03	17:08	18:09		20:14	16 07:04 (C13)
12	08:44	07:52	06:42		06:20	06:45 (C13)
	16:05	17:10	18:11		20:16	19 07:04 (C13)
13	08:43	07:50	06:40		06:17	06:43 (C13)
	16:06	17:12	18:13		20:18	22 07:05 (C13)
14	08:42	07:47	06:37		06:15	06:42 (C13)
	16:08	17:14	18:15		20:20	23 07:05 (C13)
15	08:41	07:45	06:34		06:12	06:42 (C13)
	16:10	17:17	18:18		20:22	23 07:05 (C13)
16	08:40	07:43	06:32		06:09	06:41 (C13)
	16:12	17:19	18:20		20:24	23 07:04 (C13)
17	08:39	07:40	06:29		06:07	06:41 (C13)
	16:14	17:21	18:22		20:26	23 07:04 (C13)
18	08:38	07:38	08:05 (C14)	06:26	06:04	06:41 (C13)
	16:16	17:23	12 08:17 (C14)	18:24	20:28	22 07:03 (C13)
19	08:36	07:36	08:03 (C14)	06:24	06:02	06:42 (C13)
	16:18	17:26	17 08:20 (C14)	18:26	20:31	21 07:03 (C13)
20	08:35	07:33	08:00 (C14)	06:21	05:59	06:43 (C13)
	16:20	17:28	21 08:21 (C14)	18:28	20:33	19 07:02 (C13)
21	08:33	07:31	07:59 (C14)	06:18	05:57	06:43 (C13)
	16:22	17:30	24 08:23 (C14)	18:30	20:35	17 07:00 (C13)
22	08:32	07:28	07:58 (C14)	06:16	05:54	06:45 (C13)
	16:24	17:32	25 08:23 (C14)	18:32	20:37	14 06:59 (C13)
23	08:30	07:26	07:57 (C14)	06:13	05:52	06:46 (C13)
	16:26	17:34	28 08:25 (C14)	18:34	20:39	10 06:56 (C13)
24	08:29	07:23	07:56 (C14)	06:10	05:49	04:47
	16:28	17:37	29 08:25 (C14)	18:36	20:41	21:40
25	08:27	07:21	07:56 (C14)	06:08	05:47	04:45
	16:30	17:39	29 08:25 (C14)	18:39	20:43	21:42
26	08:26	07:18	07:56 (C14)	06:05	05:44	04:44
	16:32	17:41	29 08:25 (C14)	18:41	20:45	21:43
27	08:24	07:16	07:55 (C14)	06:02	05:42	04:42
	16:34	17:43	30 08:25 (C14)	18:43	20:47	21:45
28	08:22	07:13	07:55 (C14)	06:00	05:40	04:41
	16:37	17:45	30 08:25 (C14)	18:45	20:49	21:47
29	08:20			06:57	05:37	04:40
	16:39			19:47	20:51	21:48
30	08:19			06:54	05:35	04:38
	16:41			19:49	20:53	21:50
31	08:17			06:51		04:37
	16:43			19:51		21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		274	182	278		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.63	0.63	0.66		
Total reduction		0.12	0.24	0.31		
Total, real		32	44	85		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (C13) 18:54	07:17 16:36	08:24 15:45
2	04:31 22:09	05:18 21:26	06:19 20:11	06:49 (C13) 18:51	07:19 16:34	08:26 15:44
3	04:32 22:08	05:20 21:24	06:21 20:09	06:51 (C13) 18:48	07:21 16:32	08:28 15:43
4	04:33 22:07	05:22 21:22	06:23 20:06	06:53 (C13) 18:46	07:23 16:30	08:29 15:42
5	04:34 22:07	05:23 21:20	06:25 20:04	07:25 18:43	08:41 (C14) 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:37 (C14) 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:35 (C14) 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:33 (C14) 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:32 (C14) 16:19	08:37 15:39
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:31 (C14) 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:30 (C14) 16:15	08:39 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:29 (C14) 16:13	08:40 15:38
13	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:28 (C14) 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:27 (C14) 16:10	08:43 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:28 (C14) 16:08	08:44 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:28 (C14) 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:28 (C14) 16:04	08:46 15:38
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	08:28 (C14) 16:03	08:46 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:29 (C14) 16:01	08:47 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:29 (C14) 15:59	08:48 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:30 (C14) 15:58	08:49 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:31 (C14) 15:56	08:49 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:34 (C14) 15:55	08:50 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:36 (C14) 15:53	08:50 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:38 (C14) 15:52	08:51 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:40 (C14) 15:51	08:51 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:11 17:48	08:42 (C14) 15:50	08:51 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:46	08:44 (C14) 15:48	08:51 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	08:46 (C14) 15:47	08:51 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:41	08:48 (C14) 15:46	08:51 15:46
31	05:14 21:30	06:15 20:17	07:17 18:54	08:19 17:39	08:50 (C14) 15:45	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		242	42	465		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.66	0.66	0.63		
Total reduction		0.31	0.26	0.15		
Total, real		74	11	70		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	06:19 (C14) 21:53	04:36 22:09	04:30 22:09	05:16 21:28	06:35 (C14) 20:14	06:17 18:54	07:17 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	06:19 (C14) 21:54	04:35 22:08	04:31 22:08	05:18 21:26	06:33 (C14) 20:11	06:19 18:51	07:19 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	06:19 (C14) 21:55	04:34 22:08	04:32 22:08	05:20 21:24	06:32 (C14) 20:09	06:21 18:48	07:21 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	06:19 (C14) 21:57	04:33 22:07	04:33 22:07	05:22 21:22	06:31 (C14) 20:06	06:23 18:46	07:23 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	06:19 (C14) 21:58	04:34 22:07	04:34 22:07	05:24 21:20	06:31 (C14) 20:03	06:25 18:43	07:25 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:20 (C14) 21:59	04:31 22:06	04:35 22:06	05:25 21:17	06:29 (C14) 20:01	06:27 18:40	07:28 16:25	08:33 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:20 (C14) 22:00	04:30 22:05	04:36 22:05	05:27 21:15	06:29 (C14) 19:58	06:29 18:38	07:30 16:23	08:34 15:40
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:21 (C14) 22:01	04:29 22:04	04:37 22:04	05:29 21:13	06:29 (C14) 19:56	06:31 18:35	07:32 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:21 (C14) 22:02	04:29 22:03	04:38 22:03	05:31 21:11	06:28 (C14) 19:53	06:33 18:33	07:34 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	06:22 (C14) 22:03	04:28 22:02	04:40 22:02	05:33 21:08	06:28 (C14) 19:50	06:35 18:30	07:36 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:23 (C14) 22:04	04:28 22:01	04:41 22:01	05:35 21:06	06:28 (C14) 19:47	06:37 18:27	07:38 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:24 (C14) 22:05	04:27 22:00	04:42 22:00	05:37 21:04	06:27 (C14) 19:45	06:39 18:25	07:40 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:26 (C14) 22:06	04:27 21:59	04:44 21:59	05:39 21:02	06:29 (C14) 19:42	06:41 18:22	07:42 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:28 (C14) 22:07	04:26 21:58	04:45 21:58	05:41 20:59	06:27 (C14) 19:39	06:43 18:20	07:44 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:31 (C14) 22:07	04:26 21:57	04:46 21:57	05:43 20:57	06:28 (C14) 19:37	06:45 18:17	07:46 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	06:36 (C14) 22:08	04:26 21:55	04:48 21:55	05:45 20:54	06:28 (C14) 19:34	06:47 18:15	07:48 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	04:57 21:54	05:47 20:52	06:28 (C14) 19:31	06:49 18:12	07:50 16:04	08:46 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	04:51 21:52	05:49 20:50	06:29 (C14) 19:29	06:51 18:09	07:52 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	04:53 21:51	05:51 20:47	06:29 (C14) 19:26	06:53 18:07	07:55 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	06:31 (C14) 22:10	04:54 21:49	04:54 21:49	05:53 20:45	06:30 (C14) 19:23	06:55 18:04	07:57 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	06:44 (C14) 22:10	04:52 21:48	04:56 21:48	05:55 20:42	06:31 (C14) 19:21	06:57 18:02	07:59 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	06:46 (C14) 22:10	04:50 21:46	04:58 21:46	05:57 20:40	06:33 (C14) 19:18	06:59 18:00	08:01 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	06:50 (C14) 22:10	04:49 21:45	04:59 21:45	05:59 20:37	06:35 (C14) 19:15	07:01 17:57	08:03 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	06:51 (C14) 22:10	04:47 21:43	05:01 21:43	06:01 20:35	06:47 (C14) 19:12	07:03 17:55	08:05 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	06:52 (C14) 22:10	04:45 21:41	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	06:53 (C14) 22:10	04:44 21:39	05:05 21:39	06:05 20:30	06:57 (C14) 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	06:54 (C14) 22:10	04:42 21:38	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	06:55 (C14) 22:10	04:41 21:36	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 17:47	06:57 18:47	05:37 20:51	04:40 21:48	06:56 (C14) 22:10	04:39 21:34	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41	07:04 17:49	06:54 18:49	05:35 20:53	04:38 21:50	06:57 (C14) 22:09	04:37 21:32	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	07:03 17:51	06:52 18:51	05:32 20:53	04:37 21:51	06:58 (C14) 22:09	04:36 21:30	05:14 21:30	06:15 20:17	07:16 18:57	07:19 16:38	08:23 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216	
Total, worst case				285	367		39	622					
Sun reduction				0.50	0.57		0.49	0.50					
Oper. time red.				0.94	0.94		0.94	0.94					
Wind dir. red.				0.65	0.65		0.65	0.65					
Total reduction				0.31	0.35		0.30	0.30					
Total, real				87	128		12	190					

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:55	07:09 (C1) 21:53
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	07:13 (C1) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	07:19 (C1) 21:04	05:23 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	07:15 (C1) 21:06	05:21 21:59
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	07:12 (C1) 21:08	05:19 22:00
8	08:48 15:58	08:00 17:01	06:53 18:03	06:30 20:08	07:10 (C1) 21:10	05:17 22:01
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	07:08 (C1) 21:12	05:15 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	07:07 (C1) 21:14	05:13 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	07:06 (C1) 21:16	05:10 22:04
12	08:44 16:04	07:52 17:10	06:42 18:11	06:20 20:16	07:04 (C1) 21:18	05:08 22:05
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	07:04 (C1) 21:20	05:06 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	07:03 (C1) 21:22	05:04 22:07
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	07:02 (C1) 21:24	05:02 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	07:01 (C1) 21:25	05:01 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	07:02 (C1) 21:27	04:59 22:08
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	07:01 (C1) 21:29	04:57 22:09
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	07:01 (C1) 21:31	04:55 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	07:00 (C1) 21:33	04:53 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	07:01 (C1) 21:35	04:52 22:10
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	07:01 (C1) 21:37	04:50 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	07:01 (C1) 21:38	04:48 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	07:02 (C1) 21:40	04:47 22:10
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	07:02 (C1) 21:42	04:45 22:10
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	07:02 (C1) 21:43	04:44 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	07:03 (C1) 21:45	04:42 22:10
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	07:05 (C1) 21:47	04:41 22:10
29	08:20 16:39		06:57 19:47	05:37 20:51	07:06 (C1) 21:48	04:39 22:10
30	08:18 16:41		06:54 19:49	05:35 20:53	07:07 (C1) 21:50	04:38 22:09
31	08:17 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Total, worst case				834		26
Sun reduction				0.50		0.57
Oper. time red.				0.94		0.94
Wind dir. red.				0.66		0.66
Total reduction				0.31		0.35
Total, real				258		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)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:05 (C1) 18:54	07:17 16:36	08:24 15:45
2	04:31 22:09	05:17 21:26	06:19 20:11	07:06 (C1) 18:51	07:19 16:34	08:26 15:44
3	04:32 22:08	05:19 21:24	06:21 20:09	07:06 (C1) 18:48	07:21 16:31	08:28 15:43
4	04:33 22:07	05:21 21:22	06:23 20:06	07:08 (C1) 18:46	07:23 16:29	08:29 15:42
5	04:33 22:07	05:23 21:19	06:25 20:03	07:08 (C1) 18:43	07:25 16:27	08:31 15:41
6	04:35 22:06	05:25 21:17	06:27 20:01	07:10 (C1) 18:40	07:27 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:14 (C1) 18:38	07:29 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:25 (C1) 18:35	07:32 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	07:20 (C1) 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	04:42 22:00	05:37 21:04	07:32 (C1) 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	04:43 21:59	05:39 21:01	07:35 (C1) 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	04:45 21:58	05:41 20:59	07:37 (C1) 19:39	07:44 18:19	07:51 16:09	08:43 15:38
15	04:46 21:57	05:43 20:57	07:39 (C1) 19:37	07:46 18:17	07:53 16:07	08:44 15:38
16	04:48 21:55	05:45 20:54	07:40 (C1) 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	04:49 21:54	05:47 20:52	07:41 (C1) 19:31	07:50 18:12	07:57 16:04	2 13:07 (C13) 13:06 (C13)
18	04:51 21:52	05:49 20:50	07:09 (C1) 19:29	07:52 18:09	07:59 16:02	5 13:11 (C13) 13:06 (C13)
19	04:52 21:51	05:51 20:47	07:42 (C1) 19:26	07:55 18:07	08:01 16:01	6 13:12 (C13) 13:05 (C13)
20	04:54 21:49	05:53 20:45	07:43 (C1) 19:23	07:57 18:04	08:03 15:59	8 13:13 (C13) 13:06 (C13)
21	04:56 21:48	05:55 20:42	07:44 (C1) 19:20	07:59 18:02	08:05 15:58	8 13:14 (C13) 13:07 (C13)
22	04:57 21:46	05:57 20:40	07:06 (C1) 19:18	08:01 17:59	08:07 15:56	8 13:15 (C13) 13:07 (C13)
23	04:59 21:45	05:59 20:37	07:44 (C1) 19:15	08:03 17:57	08:09 15:55	8 13:15 (C13) 13:08 (C13)
24	05:01 21:43	06:01 20:35	07:05 (C1) 19:12	08:05 17:55	08:11 15:53	8 13:16 (C13) 13:08 (C13)
25	05:03 21:41	06:03 20:32	07:44 (C1) 19:10	07:07 16:52	08:13 15:52	8 13:16 (C13) 13:09 (C13)
26	05:04 21:39	06:05 20:29	07:03 (C1) 19:07	07:10 16:50	08:15 15:51	7 13:10 (C13) 13:15 (C13)
27	05:06 21:38	06:07 20:27	07:43 (C1) 19:04	07:12 16:47	08:17 15:49	5 13:11 (C13) 13:15 (C13)
28	05:08 21:36	06:09 20:24	07:42 (C1) 19:02	07:14 16:45	08:19 15:48	4 13:15 (C13) 15:44
29	05:10 21:34	06:11 20:22	07:04 (C1) 18:59	07:16 16:43	08:21 15:47	08:51 15:44
30	05:12 21:32	06:13 20:19	07:04 (C1) 18:56	07:18 16:40	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 20:17	07:04 (C1) 18:56	07:20 16:38	08:51 15:47	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		697	175			77
Sun reduction		0.50	0.43			0.07
Oper. time red.		0.94	0.94			0.94
Wind dir. red.		0.66	0.66			0.63
Total reduction		0.31	0.26			0.04
Total, real		215	46			3

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January				February				March				April				May				June			
1	08:51		13:23 (C13)	08:15	07:11								06:49				05:32			06:39 (C1)	04:36			
	15:48	16	13:39 (C13)	16:45	17:47								19:53				20:55	42		07:21 (C1)	21:53			
2	08:50		13:24 (C13)	08:13	07:08								06:46				05:30			06:39 (C1)	04:35			
	15:49	16	13:40 (C13)	16:47	17:50								19:55				20:57	42		07:21 (C1)	21:54			
3	08:50		13:25 (C13)	08:11	07:06								06:43				05:28			06:39 (C1)	04:34			
	15:51	14	13:39 (C13)	16:50	17:52								19:57				21:00	42		07:21 (C1)	21:55			
4	08:50		13:26 (C13)	08:09	07:03								06:41				05:26			06:40 (C1)	04:33			
	15:52	12	13:38 (C13)	16:52	17:54								19:59				21:02	40		07:20 (C1)	21:57			
5	08:49		13:28 (C13)	08:07	07:00								06:38				05:23			06:40 (C1)	04:32			
	15:53	11	13:39 (C13)	16:54	17:56								20:01				21:04	40		07:20 (C1)	21:58			
6	08:49		13:30 (C13)	08:05	06:58								06:35				05:21			06:40 (C1)	04:31			
	15:55	7	13:37 (C13)	16:56	17:58								20:03				21:06	39		07:19 (C1)	21:59			
7	08:48			08:03	06:55								06:33				05:19			06:41 (C1)	04:30			
	15:56			16:59	18:00								20:05				21:08	38		07:19 (C1)	22:00			
8	08:48			08:00	06:53								06:30				05:17			06:41 (C1)	04:29			
	15:58			17:01	18:03								20:08				21:10	37		07:18 (C1)	22:01			
9	08:47			07:58	06:50								06:27				05:15			06:42 (C1)	04:28			
	15:59			17:03	18:05								20:10				21:12	35		07:17 (C1)	22:02			
10	08:46			07:56	06:47								06:25				05:13			06:43 (C1)	04:28			
	16:01			17:05	18:07								20:12				21:14	33		07:16 (C1)	22:03			
11	08:45			07:54	06:45								06:22				05:10			06:43 (C1)	04:27			
	16:03			17:08	18:09								20:14				21:16	32		07:15 (C1)	22:04			
12	08:44			07:52	06:42								06:20				05:08			06:44 (C1)	04:27			
	16:04			17:10	18:11	5							20:16				21:18	29		07:13 (C1)	22:05			
13	08:43			07:49	06:39								06:17				05:06			06:45 (C1)	04:26			
	16:06			17:12	18:13	11							20:18				21:20	27		07:12 (C1)	22:06			
14	08:42			07:47	06:37								06:14				05:04			06:47 (C1)	04:26			
	16:08			17:14	18:15	15							20:20	10			07:09 (C1)	21:22	24	07:11 (C1)	22:07			
15	08:41			07:45	06:34								06:12				06:55 (C1)	05:02		06:48 (C1)	04:26			
	16:10			17:17	18:17	19							20:22	18			07:13 (C1)	21:24	21	07:09 (C1)	22:07			
16	08:40			07:43	06:31								06:09				06:52 (C1)	05:01		06:50 (C1)	04:25			
	16:12			17:19	18:20	20							20:24	23			07:15 (C1)	21:25	17	07:07 (C1)	22:08			
17	08:39			07:40	06:29								06:07				06:50 (C1)	04:59		06:53 (C1)	04:25			
	16:14			17:21	18:22	22							20:26	27			07:17 (C1)	21:27	12	07:05 (C1)	22:08			
18	08:37			07:38	06:26								06:04				06:47 (C1)	04:57			04:25			
	16:16			17:23	18:24	22							20:28	31			07:18 (C1)	21:29			22:09			
19	08:36			07:35	06:23								06:02				06:46 (C1)	04:55			04:25			
	16:18			17:25	18:26	22							20:30	33			07:19 (C1)	21:31			22:09			
20	08:35			07:33	06:21								06:56 (C4)	05:59			06:44 (C1)	04:53			04:25			
	16:20			17:28	18:28	22							20:33	36			07:20 (C1)	21:33			22:10			
21	08:33			07:31	06:18								06:56 (C4)	05:57			06:44 (C1)	04:52			04:25			
	16:22			17:30	18:30	21							20:35	37			07:21 (C1)	21:35			22:10			
22	08:32			07:28	06:15								06:57 (C4)	05:54			06:43 (C1)	04:50			04:25			
	16:24			17:32	18:32	20							20:37	39			07:22 (C1)	21:36			22:10			
23	08:30			07:26	06:13								06:58 (C4)	05:52			06:42 (C1)	04:48			04:26			
	16:26			17:34	18:34	17							07:15 (C4)	05:49	39		07:21 (C1)	21:38			22:10			
24	08:29			07:23	06:10								06:59 (C4)	05:49			06:41 (C1)	04:47			04:26			
	16:28			17:37	18:36	14							07:13 (C4)	20:41	41		07:22 (C1)	21:40			22:10			
25	08:27			07:21	06:07								07:00 (C4)	05:47			06:41 (C1)	04:45			04:26			
	16:30			17:39	18:38	10							20:43	41			07:22 (C1)	21:42			22:10			
26	08:26			07:18	06:05								05:44				06:40 (C1)	04:44			04:27			
	16:32			17:41	18:40								20:45	42			07:22 (C1)	21:43			22:10			
27	08:24			07:16	06:02								05:42				06:40 (C1)	04:42			04:27			
	16:34			17:43	18:43								20:47	42			07:22 (C1)	21:45			22:10			
28	08:22			07:13	05:59								05:39				06:40 (C1)	04:41			04:28			
	16:36			17:45	18:45								20:49	42			07:22 (C1)	21:47			22:10			
29	08:20				06:57								05:37				06:40 (C1)	04:39			04:28			
	16:39				19:47								20:51	42			07:22 (C1)	21:48			22:10			
30	08:18				06:54								05:35				06:39 (C1)	04:38			04:29			
	16:41				19:49								20:53	42			07:21 (C1)	21:50			22:09			
31	08:17				06:51													04:37						
	16:43				19:51													21:51						
Potential sun hours	235			266	366								426				508				529			
Total, worst case		76			240								585				550							
Sun reduction		0.13			0.41								0.50				0.57							
Oper. time red.		0.94			0.94								0.94				0.94							
Wind dir. red.		0.64			0.63								0.66				0.66							
Total reduction		0.08			0.24								0.31				0.35							
Total, real		6			59								180				192							

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

July		August		September		October		November		December	
1	04:30	05:16	06:54 (C1)	06:17		07:17	07:46 (C4)	07:23	08:24		
	22:09	21:28	30 07:24 (C1)	20:14		18:54	8 07:54 (C4)	16:36	15:45		
2	04:31	05:17	06:53 (C1)	06:19		07:19		07:25	08:26		
	22:09	21:26	32 07:25 (C1)	20:11		18:51		16:34	15:44		
3	04:32	05:19	06:53 (C1)	06:21		07:21		07:27	08:28		
	22:08	21:24	33 07:26 (C1)	20:09		18:48		16:31	15:43		
4	04:33	05:21	06:52 (C1)	06:23		07:23		07:29	08:29		
	22:07	21:22	35 07:27 (C1)	20:06		18:46		16:29	15:42		
5	04:33	05:23	06:50 (C1)	06:25		07:25		07:31	08:31		
	22:07	21:19	37 07:27 (C1)	20:03		18:43		16:27	15:41		
6	04:35	05:25	06:50 (C1)	06:27		07:27		07:33	08:32		13:17 (C13)
	22:06	21:17	38 07:28 (C1)	20:01		18:40		16:25	15:41	6	13:23 (C13)
7	04:36	05:27	06:50 (C1)	06:29		07:29		07:36	08:34		13:15 (C13)
	22:05	21:15	39 07:29 (C1)	19:58		18:38		16:23	15:40	9	13:24 (C13)
8	04:37	05:29	06:49 (C1)	06:31		07:32		07:38	08:35		13:14 (C13)
	22:04	21:13	40 07:29 (C1)	19:55		18:35		16:21	15:40	12	13:26 (C13)
9	04:38	05:31	06:49 (C1)	06:33		07:34		07:40	08:37		13:13 (C13)
	22:03	21:11	41 07:30 (C1)	19:53		18:32		16:19	15:39	14	13:27 (C13)
10	04:39	05:33	06:48 (C1)	06:35		07:36		07:42	08:38		13:14 (C13)
	22:02	21:08	41 07:29 (C1)	19:50		18:30		16:17	15:39	15	13:29 (C13)
11	04:41	05:35	06:47 (C1)	06:37		07:38		07:44	08:39		13:13 (C13)
	22:01	21:06	43 07:30 (C1)	19:47		18:27		16:15	15:38	17	13:30 (C13)
12	04:42	05:37	06:47 (C1)	06:39		07:40		07:46	08:40		13:14 (C13)
	22:00	21:04	43 07:30 (C1)	19:45		18:25		16:13	15:38	17	13:31 (C13)
13	04:43	05:39	06:47 (C1)	06:41		07:42		07:49	08:42		13:14 (C13)
	21:59	21:01	43 07:30 (C1)	19:42		18:22		16:11	15:38	18	13:32 (C13)
14	04:45	05:41	06:47 (C1)	06:43		07:44		07:51	08:43		13:14 (C13)
	21:58	20:59	43 07:30 (C1)	19:39		18:19		16:09	15:38	18	13:32 (C13)
15	04:46	05:43	06:47 (C1)	06:45		07:46		07:53	08:44		13:14 (C13)
	21:57	20:57	43 07:30 (C1)	19:37		18:17		16:07	15:38	19	13:33 (C13)
16	04:48	05:45	06:47 (C1)	06:47		07:48		07:55	08:45		13:14 (C13)
	21:55	20:54	43 07:30 (C1)	19:34		18:14		16:06	15:38	20	13:34 (C13)
17	04:49	05:47	06:46 (C1)	06:49		07:50		07:57	08:46		13:14 (C13)
	21:54	20:52	42 07:28 (C1)	19:31		18:12		16:04	15:38	20	13:34 (C13)
18	04:51	05:49	06:47 (C1)	06:51	07:50 (C4)	07:52		07:59	08:46		13:15 (C13)
	21:52	20:50	41 07:28 (C1)	19:29	8 07:58 (C4)	18:09		16:02	15:38	20	13:35 (C13)
19	04:52	05:51	06:47 (C1)	06:53	07:47 (C4)	07:55		08:01	08:47		13:14 (C13)
	21:51	20:47	40 07:27 (C1)	19:26	13 08:00 (C4)	18:07		16:01	15:38	21	13:35 (C13)
20	04:54	05:53	06:47 (C1)	06:55	07:45 (C4)	07:57		08:03	08:48		13:15 (C13)
	21:49	20:45	40 07:27 (C1)	19:23	16 08:01 (C4)	18:04		15:59	15:38	21	13:36 (C13)
21	04:56	05:55	06:48 (C1)	06:57	07:43 (C4)	07:59		08:05	08:48		13:16 (C13)
	21:48	20:42	38 07:26 (C1)	19:20	19 08:02 (C4)	18:02		15:58	15:39	21	13:37 (C13)
22	04:57	05:57	06:48 (C1)	06:59	07:41 (C4)	08:01		08:07	08:49		13:16 (C13)
	21:46	20:40	37 07:25 (C1)	19:18	21 08:02 (C4)	17:59		15:56	15:39	21	13:37 (C13)
23	04:59	05:59	06:49 (C1)	07:01	07:40 (C4)	08:03		08:09	08:50		13:17 (C13)
	21:45	20:37	35 07:24 (C1)	19:15	22 08:02 (C4)	17:57		15:55	15:40	21	13:38 (C13)
24	05:01	06:01	06:50 (C1)	07:03	07:40 (C4)	08:05		08:11	08:50		13:17 (C13)
	21:43	20:35	33 07:23 (C1)	19:12	22 08:02 (C4)	17:55		15:53	15:40	21	13:38 (C13)
25	05:03	06:03	06:51 (C1)	07:05	07:39 (C4)	07:57		08:13	08:50		13:18 (C13)
	21:41	20:32	30 07:21 (C1)	19:10	22 08:01 (C4)	16:52		15:52	15:41	20	13:38 (C13)
26	05:04	06:05	06:52 (C1)	07:07	07:39 (C4)	07:59		08:15	08:51		13:18 (C13)
	21:39	6 07:12 (C1)	20:29	19:07	22 08:01 (C4)	16:50		15:51	15:42	20	13:38 (C13)
27	05:06	07:02 (C1)	06:07	06:54 (C1)	07:09	07:12		08:17	08:51		13:19 (C13)
	21:38	14 07:16 (C1)	20:27	07:17 (C1)	19:04	21 08:01 (C4)	16:47	15:49	15:43	20	13:39 (C13)
28	05:08	06:59 (C1)	06:09	06:56 (C1)	07:11	07:14		08:19	08:51		13:19 (C13)
	21:36	19 07:18 (C1)	20:24	07:14 (C1)	19:02	19 08:00 (C4)	16:45	15:48	15:44	20	13:39 (C13)
29	05:10	06:58 (C1)	06:11	07:00 (C1)	07:13	07:16		08:21	08:51		13:20 (C13)
	21:34	22 07:20 (C1)	20:22	9 07:09 (C1)	18:59	16 07:58 (C4)	16:43	15:47	15:44	19	13:39 (C13)
30	05:12	06:57 (C1)	06:13		07:15	07:18		08:22	08:51		13:21 (C13)
	21:32	25 07:22 (C1)	20:19		18:56	13 07:57 (C4)	16:40	15:46	15:45	19	13:40 (C13)
31	05:14	06:56 (C1)	06:15			07:20			08:51		13:22 (C13)
	21:30	28 07:24 (C1)	20:17			16:38			15:47	18	13:40 (C13)
Potential sun hours	529		469		385	324		247	216		
Total, worst case	114		1037		234	8					467
Sun reduction	0.49		0.50		0.43	0.26					0.07
Oper. time red.	0.94		0.94		0.94	0.94					0.94
Wind dir. red.	0.66		0.66		0.63	0.63					0.64
Total reduction	0.30		0.31		0.25	0.15					0.04
Total, real	35		318		59	1					20

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	06:00 (C13) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	06:00 (C13) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	05:59 (C13) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:00 (C13) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	06:00 (C13) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	06:00 (C13) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	06:01 (C13) 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:01 (C13) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:02 (C13) 22:02
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	06:03 (C13) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:04 (C13) 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:07 (C13) 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	07:06 (C14) 20:18	05:07 21:20	06:12 (C13) 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	07:03 (C14) 20:20	05:05 21:22	06:15 (C13) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	07:01 (C14) 20:22	05:03 21:24	06:17 (C13) 22:08
16	08:40 16:12	07:43 17:19	06:32 18:20	06:59 (C14) 20:24	05:01 21:25	06:18 (C13) 22:09
17	08:39 16:14	07:40 17:21	06:29 18:22	06:57 (C14) 20:26	04:59 21:27	06:19 (C13) 22:10
18	08:37 16:16	07:38 17:23	06:26 18:24	06:56 (C14) 20:28	04:57 21:29	06:20 (C13) 22:11
19	08:36 16:18	07:36 17:26	06:24 18:26	06:56 (C14) 20:31	04:55 21:31	06:21 (C13) 22:12
20	08:35 16:20	07:33 17:28	06:21 18:28	06:55 (C14) 20:33	04:54 21:33	06:22 (C13) 22:13
21	08:33 16:22	07:31 17:30	06:18 18:30	06:54 (C14) 20:35	04:52 21:35	06:23 (C13) 22:14
22	08:32 16:24	07:28 17:32	06:16 18:32	06:54 (C14) 20:37	04:50 21:37	06:24 (C13) 22:15
23	08:30 16:26	07:26 17:34	06:13 18:34	06:54 (C14) 20:39	04:48 21:38	06:25 (C13) 22:16
24	08:29 16:28	07:23 17:37	06:10 18:36	06:53 (C14) 20:41	04:47 21:40	06:26 (C13) 22:17
25	08:27 16:30	07:21 17:39	06:08 18:39	06:54 (C14) 20:43	06:14 (C13) 21:42	06:27 (C13) 22:18
26	08:26 16:32	07:18 17:41	06:05 18:41	06:54 (C14) 20:45	06:11 (C13) 21:43	06:28 (C13) 22:19
27	08:24 16:34	07:16 17:43	06:02 18:43	06:54 (C14) 20:47	06:09 (C13) 21:45	06:29 (C13) 22:20
28	08:22 16:37	07:13 17:45	06:00 18:45	06:56 (C14) 20:49	06:07 (C13) 21:47	06:30 (C13) 22:21
29	08:20 16:39	07:11 17:47	06:57 18:47	07:56 (C14) 20:51	06:05 (C13) 21:48	06:31 (C13) 22:22
30	08:19 16:41	07:09 17:49	06:54 18:49	07:58 (C14) 20:53	06:03 (C13) 21:50	06:32 (C13) 22:23
31	08:17 16:43	07:07 17:51	06:52 18:51	08:01 (C14) 20:55	06:22 (C13) 21:51	06:33 (C13) 22:24
Potential sun hours	235	266	366	426	508	528
Total, worst case			470	70	212	
Sun reduction			0.41	0.50	0.57	
Oper. time red.			0.94	0.94	0.94	
Wind dir. red.			0.63	0.66	0.66	
Total reduction			0.25	0.31	0.35	
Total, real			115	22	75	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:16 (C13)	06:17	07:17	07:48 (C14)
	22:09	21:28	8 06:24 (C13)	20:14	18:54	7 07:55 (C14)
2	04:31	05:18	06:14 (C13)	06:19	07:19	16:36
	22:09	21:26	12 06:26 (C13)	20:11	18:51	07:25
3	04:32	05:20	06:13 (C13)	06:21	07:21	16:34
	22:08	21:24	15 06:28 (C13)	20:09	18:48	07:27
4	04:33	05:22	06:12 (C13)	06:23	07:23	16:32
	22:07	21:22	17 06:29 (C13)	20:06	18:46	07:29
5	04:34	05:24	06:11 (C13)	06:25	07:25	16:30
	22:07	21:20	19 06:30 (C13)	20:04	18:43	07:31
6	04:35	05:25	06:10 (C13)	06:27	07:28	16:27
	22:06	21:17	20 06:30 (C13)	20:01	18:40	07:33
7	04:36	05:27	06:09 (C13)	06:29	07:30	16:25
	22:05	21:15	21 06:30 (C13)	19:58	18:38	07:36
8	04:37	05:29	06:09 (C13)	06:31	07:32	16:23
	22:04	21:13	22 06:31 (C13)	19:56	18:35	07:38
9	04:38	05:31	06:09 (C13)	06:33	07:34	16:21
	22:03	21:11	22 06:31 (C13)	19:53	18:33	07:40
10	04:40	05:33	06:09 (C13)	06:35	07:36	16:19
	22:02	21:08	22 06:31 (C13)	19:50	18:30	07:42
11	04:41	05:35	06:09 (C13)	06:37	07:38	16:17
	22:01	21:06	22 06:31 (C13)	19:47	18:27	07:44
12	04:42	05:37	06:09 (C13)	06:39	07:40	16:15
	22:00	21:04	21 06:30 (C13)	19:45	18:25	07:46
13	04:44	05:39	06:11 (C13)	06:41	07:42	16:13
	21:59	21:02	18 06:29 (C13)	19:42	17 08:06 (C14)	07:49
14	04:45	05:41	06:13 (C13)	06:43	07:44	16:11
	21:58	20:59	16 06:29 (C13)	19:39	21 08:08 (C14)	07:51
15	04:46	05:43	06:15 (C13)	06:45	07:46	16:10
	21:57	20:57	13 06:28 (C13)	19:37	24 08:09 (C14)	07:53
16	04:48	05:45	06:17 (C13)	06:47	07:48	16:08
	21:55	20:54	10 06:27 (C13)	19:34	26 08:10 (C14)	07:55
17	04:49	05:47	06:19 (C13)	06:49	07:50	16:06
	21:54	20:52	6 06:25 (C13)	19:31	27 08:10 (C14)	07:57
18	04:51	05:49	06:21 (C13)	06:51	07:52	16:04
	21:52	20:50	2 06:23 (C13)	19:29	29 08:11 (C14)	16:03
19	04:53	05:51	06:53	07:41 (C14)	07:55	15:58
	21:51	20:47	19:26	30 08:11 (C14)	18:07	07:59
20	04:54	05:53	06:55	07:40 (C14)	07:57	16:01
	21:49	20:45	19:23	31 08:11 (C14)	18:04	08:03
21	04:56	05:55	06:57	07:40 (C14)	07:59	15:59
	21:48	20:42	19:21	31 08:11 (C14)	18:02	15:55
22	04:58	05:57	06:59	07:39 (C14)	08:01	15:51
	21:46	20:40	19:18	31 08:10 (C14)	18:00	08:05
23	04:59	05:59	07:01	07:39 (C14)	08:03	15:50
	21:45	20:37	19:15	31 08:10 (C14)	17:57	08:09
24	05:01	06:01	07:03	07:39 (C14)	08:05	15:55
	21:43	20:35	19:12	30 08:09 (C14)	17:55	15:51
25	05:03	06:03	07:05	07:39 (C14)	07:07	15:47
	21:41	20:32	19:10	29 08:08 (C14)	16:52	08:13
26	05:05	06:05	07:07	07:40 (C14)	07:10	15:52
	21:39	20:30	19:07	27 08:07 (C14)	16:50	15:41
27	05:06	06:07	07:09	07:40 (C14)	07:12	15:41
	21:38	20:27	19:04	26 08:06 (C14)	16:48	15:42
28	05:08	06:09	07:11	07:41 (C14)	07:14	15:50
	21:36	20:24	19:02	23 08:04 (C14)	16:45	15:43
29	05:10	06:11	07:13	07:43 (C14)	07:16	15:48
	21:34	20:22	18:59	19 08:02 (C14)	16:43	08:21
30	05:12	06:13	07:15	07:45 (C14)	07:18	15:47
	21:32	20:19	18:56	14 07:59 (C14)	16:41	15:45
31	05:14	06:15			07:20	15:46
	21:30	20:17			16:38	08:51
Potential sun hours	529	469	385	324	247	15:47
Total, worst case		286	476	7		216
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.66	0.63	0.63		
Total reduction		0.31	0.25	0.15		
Total, real		89	121	1		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	07:14 (C14) 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	07:05 (C14) 18:54	07:17 16:36	07:23 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	07:11 (C14) 20:58	05:30 21:54	04:35 22:09	04:31 21:26	05:18 20:11	07:03 (C14) 18:51	07:19 16:34	07:25 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	07:09 (C14) 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:20 20:09	07:02 (C14) 18:48	07:21 16:32	07:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:06 (C14) 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:22 20:06	07:01 (C14) 18:46	07:23 16:30	07:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	07:04 (C14) 21:04	05:24 21:58	04:32 22:07	04:34 21:20	05:24 20:04	07:01 (C14) 18:43	07:26 16:27	07:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	07:05 (C14) 21:06	05:21 21:59	04:31 22:06	04:35 21:17	05:26 20:01	07:01 (C14) 18:40	07:28 16:25	07:34 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	07:04 (C14) 21:08	05:19 22:00	04:30 22:05	05:27 21:15	06:29 19:58	07:00 (C14) 18:38	07:30 16:23	07:36 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	07:04 (C14) 21:10	05:17 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:00 (C14) 18:35	07:32 16:21	07:38 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	07:04 (C14) 21:12	05:15 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:02 (C14) 18:33	07:34 16:19	07:40 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	07:04 (C14) 21:14	05:13 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:04 (C14) 18:30	07:36 16:17	07:42 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	07:06 (C14) 21:16	05:11 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:06 (C14) 18:27	07:38 16:15	07:44 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	07:06 (C14) 21:18	05:09 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:08 (C14) 18:25	07:40 16:13	07:46 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	07:09 (C14) 21:20	05:07 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:14 (C14) 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	07:17 (C14) 21:22	05:05 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:47	06:57 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41	07:09 17:49	06:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:07 19:51	06:52 19:51	07:17 (C14) 07:23 (C14)	04:37 21:51	05:14 21:30	06:15 20:17	07:06 (C14) 07:19 (C14)	07:15 18:56	08:19 17:40	08:25 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case			6	222				21	209			
Sun reduction			0.41	0.50				0.50	0.43			
Oper. time red.			0.94	0.94				0.94	0.94			
Wind dir. red.			0.66	0.66				0.66	0.66			
Total reduction			0.26	0.31				0.31	0.26			
Total, real			2	69				6	55			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
1	08:51		10:37 (C1)	08:15		11:00 (C1)	07:11		07:55 (C2)	06:49		05:32		06:31 (C17)	04:36			
	15:48	45	11:22 (C1)	16:45	18	11:18 (C1)	17:47	25	08:20 (C2)	19:53		20:55	44	07:15 (C17)	21:53			
2	08:50		10:38 (C1)	08:13		11:05 (C1)	07:08		07:55 (C2)	06:46		05:30		06:31 (C17)	04:34			
	15:49	45	11:23 (C1)	16:47	9	11:14 (C1)	17:50	24	08:19 (C2)	19:55		20:57	44	07:15 (C17)	21:54			
3	08:50		09:29 (C4)	08:11			07:06		07:56 (C2)	06:43		05:28		06:31 (C17)	04:33			
	15:50	47	11:23 (C1)	16:49			17:52	22	08:18 (C2)	19:57		21:00	44	07:15 (C17)	21:55			
4	08:50		09:28 (C4)	08:09			07:03		07:57 (C2)	06:41		05:25		06:31 (C17)	04:32			
	15:52	49	11:23 (C1)	16:52			17:54	20	08:17 (C2)	19:59		21:02	44	07:15 (C17)	21:57			
5	08:49		09:28 (C4)	08:07			07:00		07:58 (C2)	06:38		05:23		06:31 (C17)	04:31			
	15:53	51	11:24 (C1)	16:54			17:56	16	08:14 (C2)	20:01		21:04	43	07:14 (C17)	21:58			
6	08:49		09:27 (C4)	08:05			06:58		08:01 (C2)	06:35		05:21		06:32 (C17)	04:31			
	15:55	53	11:24 (C1)	16:56			17:58	11	08:12 (C2)	20:03		21:06	42	07:14 (C17)	21:59			
7	08:48		09:26 (C4)	08:03			06:55			06:33		05:19		06:32 (C17)	04:30			
	15:56	56	11:25 (C1)	16:58			18:00			20:05		21:08	41	07:13 (C17)	22:00			
8	08:48		09:25 (C4)	08:00			06:53			06:30		05:17		06:32 (C17)	04:29			
	15:58	57	11:25 (C1)	17:01			18:03			20:07		21:10	41	07:13 (C17)	22:01			
9	08:47		09:24 (C4)	07:58			06:50			06:27		05:15		06:33 (C17)	04:28			
	15:59	60	11:26 (C1)	17:03			18:05			20:10		21:12	39	07:12 (C17)	22:02			
10	08:46		09:23 (C4)	07:56			06:47			06:25		05:12		06:33 (C17)	04:28			
	16:01	61	11:26 (C1)	17:05			18:07			20:12		21:14	39	07:12 (C17)	22:03			
11	08:45		09:22 (C4)	07:54			06:45			06:22		05:10		06:33 (C17)	04:27			
	16:03	64	11:27 (C1)	17:07			18:09			20:14		21:16	38	07:11 (C17)	22:04			
12	08:44		09:21 (C4)	07:52			06:42			06:20		05:08		06:34 (C17)	04:27			
	16:04	65	11:27 (C1)	17:10			18:11			20:16		21:18	36	07:10 (C17)	22:05			
13	08:43		09:20 (C4)	07:49			06:39			06:17		05:06		06:34 (C17)	04:26			
	16:06	67	11:27 (C1)	17:12			18:13			20:18		21:20	35	07:09 (C17)	22:06			
14	08:42		09:20 (C4)	07:47			06:37			06:14		05:04		06:36 (C17)	04:26			
	16:08	68	11:28 (C1)	17:14			18:15			20:20		21:22	33	07:09 (C17)	22:07			
15	08:41		09:21 (C4)	07:45			06:34			06:12		05:02		06:36 (C17)	04:25			
	16:10	67	11:28 (C1)	17:16			18:17			20:22		21:24	31	07:07 (C17)	22:07			
16	08:40		09:20 (C4)	07:43			06:31			06:09		05:00		06:37 (C17)	04:25			
	16:12	69	11:28 (C1)	17:19			18:20			20:24	12	07:02 (C17)	21:25	29	07:06 (C17)	22:08		
17	08:39		09:21 (C4)	07:40			06:29			06:07		04:59		06:38 (C17)	04:25			
	16:14	69	11:29 (C1)	17:21			18:22			20:26	19	07:06 (C17)	21:27	26	07:04 (C17)	22:09		
18	08:37		09:21 (C4)	07:38		08:05 (C2)	06:26			06:04		06:43 (C17)	04:57		06:40 (C17)	04:25		
	16:15	68	11:28 (C1)	17:23	7	08:12 (C2)	18:24			20:28	25	07:08 (C17)	21:29	24	07:04 (C17)	22:09		
19	08:36		09:21 (C4)	07:35		08:03 (C2)	06:23			06:02		06:42 (C17)	04:55		06:41 (C17)	04:25		
	16:17	68	11:28 (C1)	17:25	13	08:16 (C2)	18:26			20:30	28	07:10 (C17)	21:31	21	07:02 (C17)	22:09		
20	08:35		09:22 (C4)	07:33		08:00 (C2)	06:21			05:59		06:39 (C17)	04:53		06:43 (C17)	04:25		
	16:19	67	11:29 (C1)	17:28	17	08:17 (C2)	18:28			20:32	31	07:10 (C17)	21:33	17	07:00 (C17)	22:10		
21	08:33		09:22 (C4)	07:31		07:59 (C2)	06:18			05:57		06:38 (C17)	04:51		06:45 (C17)	04:25		
	16:21	66	11:28 (C1)	17:30	20	08:19 (C2)	18:30			20:35	34	07:12 (C17)	21:35	12	06:57 (C17)	22:10		
22	08:32		09:22 (C4)	07:28		07:57 (C2)	06:15			05:54		06:37 (C17)	04:50		06:51 (C17)	04:25		
	16:24	65	11:28 (C1)	17:32	23	08:20 (C2)	18:32			20:37	36	07:13 (C17)	21:37	2	06:53 (C17)	22:10		
23	08:30		09:22 (C4)	07:26		07:57 (C2)	06:13			05:52		06:36 (C17)	04:48			04:25		
	16:26	63	11:27 (C1)	17:34	24	08:21 (C2)	18:34			20:39	37	07:13 (C17)	21:38			22:10		
24	08:29		09:24 (C4)	07:23		07:56 (C2)	06:10			05:49		06:35 (C17)	04:47			04:26		
	16:28	61	11:28 (C1)	17:36	25	08:21 (C2)	18:36			20:41	39	07:14 (C17)	21:40			22:10		
25	08:27		09:24 (C4)	07:21		07:55 (C2)	06:07			05:47		06:34 (C17)	04:45			04:26		
	16:30	59	11:27 (C1)	17:39	26	08:21 (C2)	18:38			20:43	41	07:15 (C17)	21:42			22:10		
26	08:26		09:25 (C4)	07:18		07:55 (C2)	06:05			05:44		06:33 (C17)	04:44			04:27		
	16:32	56	11:27 (C1)	17:41	26	08:21 (C2)	18:40			20:45	41	07:14 (C17)	21:43			22:10		
27	08:24		09:26 (C4)	07:16		07:55 (C2)	06:02			05:42		06:33 (C17)	04:42			04:27		
	16:34	53	11:26 (C1)	17:43	26	08:21 (C2)	18:43			20:47	42	07:15 (C17)	21:45			22:10		
28	08:22		09:27 (C4)	07:13		07:55 (C2)	05:59			05:39		06:32 (C17)	04:41			04:28		
	16:36	49	11:25 (C1)	17:45	26	08:21 (C2)	18:45			20:49	43	07:15 (C17)	21:47			22:10		
29	08:20		09:29 (C4)				06:57			05:37		06:31 (C17)	04:39			04:28		
	16:38	44	11:24 (C1)				19:47			20:51	44	07:15 (C17)	21:48			22:10		
30	08:18		09:31 (C4)				06:54			05:35		06:31 (C17)	04:38			04:29		
	16:41	37	11:23 (C1)				19:49			20:53	44	07:15 (C17)	21:50			22:09		
31	08:17		09:35 (C4)				06:51					04:37						
	16:43	26	11:21 (C1)				19:51					21:51						
Potential sun hours	235			266			366			426		508				529		
Total, worst case	1775			260			118			516		725						
Sun reduction	0.13			0.20			0.41			0.50		0.57						
Oper. time red.	0.94			0.94			0.94			0.94		0.94						
Wind dir. red.	0.60			0.62			0.63			0.65		0.65						
Total reduction	0.07			0.11			0.24			0.30		0.34						
Total, real	130			30			28			154		247						

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

July		August		September		October		November		December	
1	04:30 22:09	05:15 21:28	06:44 (C17) 36 07:20 (C17)	06:17 20:14	07:17 18:53	07:23 16:36	08:24 15:45	09:04 (C4) 64 11:09 (C1)			
2	04:31 22:09	05:17 21:26	06:43 (C17) 38 07:21 (C17)	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44	09:06 (C4) 61 11:09 (C1)			
3	04:31 22:08	05:19 21:24	06:43 (C17) 39 07:22 (C17)	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43	09:08 (C4) 60 11:10 (C1)			
4	04:32 22:07	05:21 21:22	06:43 (C17) 40 07:23 (C17)	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42	09:09 (C4) 57 11:09 (C1)			
5	04:33 22:07	05:23 21:19	06:41 (C17) 41 07:22 (C17)	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41	09:11 (C4) 56 11:10 (C1)			
6	04:34 22:06	05:25 21:17	06:41 (C17) 42 07:23 (C17)	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41	09:13 (C4) 54 11:11 (C1)			
7	04:36 22:05	05:27 21:15	06:41 (C17) 42 07:23 (C17)	06:29 19:58	07:29 18:38	07:36 16:23	08:34 15:40	09:14 (C4) 51 11:10 (C1)			
8	04:37 22:04	05:29 21:13	06:41 (C17) 43 07:24 (C17)	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40	09:16 (C4) 49 11:11 (C1)			
9	04:38 22:03	05:31 21:11	06:41 (C17) 43 07:24 (C17)	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39	09:18 (C4) 47 11:12 (C1)			
10	04:39 22:02	05:33 21:08	06:40 (C17) 43 07:23 (C17)	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39	09:27 (C1) 45 11:12 (C1)			
11	04:40 22:01	05:35 21:06	06:40 (C17) 43 07:23 (C17)	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38	09:27 (C1) 45 11:12 (C1)			
12	04:42 22:00	05:37 21:04	06:40 (C17) 43 07:23 (C17)	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38	09:28 (C1) 45 11:13 (C1)			
13	04:43 21:59	05:39 21:01	06:40 (C17) 43 07:23 (C17)	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38	09:29 (C1) 44 11:13 (C1)			
14	04:45 21:58	05:41 20:59	06:40 (C17) 43 07:23 (C17)	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:38	09:29 (C1) 44 11:13 (C1)			
15	04:46 21:57	05:43 20:57	06:40 (C17) 43 07:23 (C17)	06:45 19:37	07:46 18:17	07:53 16:07	08:44 15:38	09:29 (C1) 44 11:13 (C1)			
16	04:48 21:55	05:45 20:54	06:40 (C17) 42 07:22 (C17)	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38	09:30 (C1) 44 11:14 (C1)			
17	04:49 21:54	05:47 20:52	06:40 (C17) 41 07:21 (C17)	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38	09:31 (C1) 43 11:14 (C1)			
18	04:51 21:52	05:49 20:49	06:40 (C17) 40 07:20 (C17)	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38	09:31 (C1) 44 11:15 (C1)			
19	04:52 21:51	05:51 20:47	06:41 (C17) 38 07:19 (C17)	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38	09:32 (C1) 44 11:16 (C1)			
20	04:54 21:49	05:53 20:45	06:41 (C17) 38 07:19 (C17)	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38	09:32 (C1) 43 11:15 (C1)			
21	04:56 21:48	05:55 20:42	06:42 (C17) 36 07:18 (C17)	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39	09:33 (C1) 43 11:16 (C1)			
22	04:57 21:46	05:57 06:58 (C17)	06:43 (C17) 33 07:16 (C17)	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39	09:33 (C1) 43 11:16 (C1)			
23	04:59 21:45	05:59 07:06 (C17)	06:44 (C17) 31 07:15 (C17)	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:40	09:34 (C1) 43 11:17 (C1)			
24	05:01 21:43	06:01 07:09 (C17)	06:46 (C17) 27 07:13 (C17)	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40	09:34 (C1) 44 11:18 (C1)			
25	05:02 21:41	06:03 07:12 (C17)	06:46 (C17) 24 07:10 (C17)	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41	09:34 (C1) 44 11:18 (C1)			
26	05:04 21:39	06:05 07:13 (C17)	06:49 (C17) 18 07:07 (C17)	07:07 19:07	08:09 17:50	08:15 15:50	08:51 15:42	09:34 (C1) 44 11:18 (C1)			
27	05:06 21:38	06:07 07:16 (C17)	06:53 (C17) 10 07:03 (C17)	07:09 19:04	08:12 17:47	08:17 15:49	08:51 15:43	09:35 (C1) 44 11:19 (C1)			
28	05:08 21:36	06:09 07:17 (C17)	06:59 20:24	07:11 19:02	08:14 17:46	08:19 15:48	08:51 15:43	09:35 (C1) 44 11:19 (C1)			
29	05:10 21:34	06:11 06:46 (C17)	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:44	09:36 (C1) 44 11:20 (C1)			
30	05:12 21:32	06:13 06:46 (C17)	06:13 20:19	07:15 18:56	08:18 17:40	08:22 15:46	08:51 15:45	09:36 (C1) 45 11:21 (C1)			
31	05:14 21:30	06:15 06:44 (C17)	06:15 20:17	07:20 16:38	08:20 16:38	08:23 15:46	08:51 15:46	09:37 (C1) 44 11:21 (C1)			
Potential sun hours	529	469	385	324	247	1214	216	1466			
Total, worst case	246	1000		361		1214		1466			
Sun reduction	0.49	0.50		0.26		0.08		0.07			
Oper. time red.	0.94	0.94		0.94		0.94		0.94			
Wind dir. red.	0.65	0.65		0.63		0.60		0.60			
Total reduction	0.30	0.30		0.15		0.05		0.04			
Total, real	73	298		53		55		57			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

		January	February	March	April	May	June		July		August	September	October	November	December	
1	08:50	08:14	07:11	06:49	05:32	04:36			04:30	7	05:07 (C12)	05:16	06:17	07:17	07:22	08:24
	15:48	16:45	17:47	19:53	20:55	21:52			22:09		05:14 (C12)	21:28	20:14	18:53	16:36	15:45
2	08:50	08:13	07:08	06:46	05:30	04:35			04:31		05:08 (C12)	05:18	06:19	07:19	07:24	08:26
	15:49	16:47	17:50	19:55	20:57	21:54			22:08	6	05:14 (C12)	21:26	20:11	18:51	16:34	15:44
3	08:50	08:11	07:05	06:43	05:28	04:34			04:32		05:09 (C12)	05:19	06:21	07:21	07:27	08:27
	15:51	16:50	17:52	19:57	20:59	21:55			22:08	5	05:14 (C12)	21:23	20:09	18:48	16:32	15:43
4	08:49	08:09	07:03	06:41	05:26	04:33			04:33		05:10 (C12)	05:21	06:23	07:23	07:29	08:29
	15:52	16:52	17:54	19:59	21:01	21:56			22:07	2	05:12 (C12)	21:21	20:06	18:45	16:29	15:42
5	08:49	08:07	07:00	06:38	05:23	04:32			04:34			05:23	06:25	07:25	07:31	08:30
	15:53	16:54	17:56	20:01	21:03	21:57			22:06			21:19	20:03	18:43	16:27	15:42
6	08:48	08:04	06:58	06:35	05:21	04:31			04:35			05:25	06:27	07:27	07:33	08:32
	15:55	16:56	17:58	20:03	21:05	21:59			22:06			21:17	20:01	18:40	16:25	15:41
7	08:48	08:02	06:55	06:33	05:19	04:30			04:36			05:27	06:29	07:29	07:35	08:33
	15:56	16:59	18:00	20:05	21:07	22:00			22:05			21:15	19:58	18:38	16:23	15:40
8	08:47	08:00	06:53	06:30	05:17	04:29			04:37			05:29	06:31	07:31	07:38	08:35
	15:58	17:01	18:03	20:07	21:09	22:01			22:04			21:13	19:55	18:35	16:21	15:40
9	08:46	07:58	06:50	06:27	05:15	04:29		05:04 (C12)	04:38			05:31	06:33	07:33	07:40	08:36
	15:59	17:03	18:05	20:09	21:11	22:02	4	05:08 (C12)	22:03			21:10	19:53	18:32	16:19	15:39
10	08:46	07:56	06:47	06:25	05:13	04:28		05:04 (C12)	04:39			05:33	06:35	07:36	07:42	08:38
	16:01	17:05	18:07	20:12	21:13	22:03	6	05:10 (C12)	22:02			21:08	19:50	18:30	16:17	15:39
11	08:45	07:54	06:45	06:22	05:11	04:27		05:03 (C12)	04:41			05:35	06:37	07:38	07:44	08:39
	16:03	17:08	18:09	20:14	21:15	22:04	7	05:10 (C12)	22:01			21:06	19:47	18:27	16:15	15:39
12	08:44	07:52	06:42	06:20	05:08	04:27		05:03 (C12)	04:42			05:37	06:39	07:40	07:46	08:40
	16:05	17:10	18:11	20:16	21:17	22:05	8	05:11 (C12)	22:00			21:04	19:45	18:25	16:13	15:38
13	08:43	07:49	06:39	06:17	05:06	04:26		05:03 (C12)	04:43			05:39	06:41	07:42	07:48	08:41
	16:06	17:12	18:13	20:18	21:19	22:06	9	05:12 (C12)	21:59			21:01	19:42	18:22	16:11	15:38
14	08:42	07:47	06:37	06:14	05:04	04:26		05:03 (C12)	04:45			05:41	06:43	07:44	07:50	08:42
	16:08	17:14	18:15	20:20	21:21	22:06	10	05:13 (C12)	21:58			20:59	19:39	18:19	16:09	15:38
15	08:41	07:45	06:34	06:12	05:03	04:26		05:02 (C12)	04:46			05:43	06:45	07:46	07:53	08:43
	16:10	17:17	18:17	20:22	21:23	22:07	11	05:13 (C12)	21:56			20:57	19:37	18:17	16:08	15:38
16	08:40	07:42	06:31	06:09	05:01	04:26		05:02 (C12)	04:48			05:45	06:47	07:48	07:55	08:44
	16:12	17:19	18:19	20:24	21:25	22:08	11	05:13 (C12)	21:55			20:54	19:34	18:14	16:06	15:38
17	08:38	07:40	06:29	06:07	04:59	04:25		05:02 (C12)	04:49			05:47	06:49	07:50	07:57	08:45
	16:14	17:21	18:22	20:26	21:27	22:08	12	05:14 (C12)	21:54			20:52	19:31	18:12	16:04	15:38
18	08:37	07:38	06:26	06:04	04:57	04:25		05:02 (C12)	04:51			05:49	06:51	07:52	07:59	08:46
	16:16	17:23	18:24	20:28	21:29	22:09	12	05:14 (C12)	21:52			20:49	19:28	18:09	16:02	15:38
19	08:36	07:35	06:23	06:02	04:55	04:25		05:02 (C12)	04:53			05:51	06:53	07:54	08:01	08:47
	16:18	17:25	18:26	20:30	21:31	22:09	12	05:14 (C12)	21:51			20:47	19:26	18:07	16:01	15:38
20	08:34	07:33	06:21	05:59	04:53	04:25		05:02 (C12)	04:54			05:53	06:55	07:56	08:03	08:48
	16:20	17:28	18:28	20:32	21:33	22:09	13	05:15 (C12)	21:49			20:44	19:23	18:04	15:59	15:39
21	08:33	07:30	06:18	05:57	04:52	04:25		05:03 (C12)	04:56			05:55	06:57	07:59	08:05	08:48
	16:22	17:30	18:30	20:34	21:34	22:10	13	05:16 (C12)	21:48			20:42	19:20	18:02	15:58	15:39
22	08:32	07:28	06:15	05:54	04:50	04:26		05:03 (C12)	04:57			05:57	06:59	08:01	08:07	08:49
	16:24	17:32	18:32	20:36	21:36	22:10	13	05:16 (C12)	21:46			20:39	19:18	17:59	15:56	15:39
23	08:30	07:26	06:13	05:52	04:48	04:26		05:03 (C12)	04:59			05:59	07:01	08:03	08:09	08:49
	16:26	17:34	18:34	20:39	21:38	22:10	12	05:15 (C12)	21:44			20:37	19:15	17:57	15:55	15:40
24	08:29	07:23	06:10	05:49	04:47	04:26		05:04 (C12)	05:01			06:01	07:03	08:05	08:11	08:50
	16:28	17:36	18:36	20:41	21:40	22:10	12	05:16 (C12)	21:43			20:34	19:12	17:55	15:53	15:41
25	08:27	07:21	06:07	05:47	04:45	04:26		05:04 (C12)	05:03			06:03	07:05	07:07	08:13	08:50
	16:30	17:39	18:38	20:43	21:41	22:10	12	05:16 (C12)	21:41			20:32	19:10	16:52	15:52	15:41
26	08:25	07:18	06:05	05:44	04:44	04:27		05:04 (C12)	05:05			06:05	07:07	07:09	08:15	08:50
	16:32	17:41	18:40	20:45	21:43	22:10	11	05:15 (C12)	21:39			20:29	19:07	16:50	15:51	15:42
27	08:24	07:16	06:02	05:42	04:42	04:27		05:05 (C12)	05:06			06:07	07:09	07:11	08:17	08:50
	16:34	17:43	18:42	20:47	21:45	22:10	11	05:16 (C12)	21:37			20:27	19:04	16:47	15:49	15:43
28	08:22	07:13	05:59	05:40	04:41	04:28		05:05 (C12)	05:08			06:09	07:11	07:14	08:19	08:51
	16:36	17:45	18:45	20:49	21:46	22:10	10	05:15 (C12)	21:35			20:24	19:01	16:45	15:48	15:44
29	08:20		06:57	05:37	04:40	04:29		05:06 (C12)	05:10			06:11	07:13	07:16	08:20	08:51
	16:39		19:47	20:51	21:48	22:09	9	05:15 (C12)	21:33			20:22	18:59	16:43	15:47	15:45
30	08:18		06:54	05:35	04:38	04:29		05:07 (C12)	05:12			06:13	07:15	07:18	08:22	08:51
	16:41		19:49	20:53	21:49	22:09	9	05:16 (C12)	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							227			20						
Sun reduction							0.56			0.49						
Oper. time red.							0.94			0.94						
Wind dir. red.							0.66			0.66						
Total reduction							0.35			0.31						
Total, real							79			6						

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	08:13 (C1) 19:53	05:32 20:55	04:36 21:53
2	08:51 15:49	08:13 16:47	07:08 17:50	08:14 (C1) 19:55	05:30 20:58	04:35 21:54
3	08:50 15:50	08:11 16:50	07:06 17:52	08:17 (C1) 19:57	05:28 21:00	04:33 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	08:20 (C1) 19:59	05:26 21:02	04:32 21:57
5	08:49 15:53	08:07 16:54	07:00 17:56	08:27 (C1) 20:01	05:23 21:04	04:32 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:31 21:59
7	08:48 15:56	08:03 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	05:15 21:12	04:28 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:28 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04
12	08:44 16:04	07:52 17:10	06:42 18:11	06:20 20:16	06:45 (C17) 21:18	05:08 22:05
13	08:43 16:06	07:50 17:12	06:39 18:13	06:17 20:18	06:43 (C17) 21:20	05:06 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	06:50 (C17) 21:22	05:04 22:07
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	06:40 (C17) 21:24	05:02 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	06:38 (C17) 21:26	05:00 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	06:52 (C17) 21:27	04:59 22:09
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:33 (C17) 21:29	04:57 22:09
19	08:36 16:18	07:35 17:25	06:24 18:26	06:02 20:30	06:54 (C17) 21:31	04:55 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	06:31 (C17) 21:33	04:53 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:32 (C17) 21:35	04:52 22:10
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	06:53 (C17) 21:37	04:50 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:32 (C17) 21:38	04:48 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:52 (C17) 21:40	04:47 22:10
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	06:33 (C17) 21:42	04:45 22:10
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	06:50 (C17) 21:44	04:44 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:34 (C17) 21:46	04:42 22:10
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	06:46 (C17) 21:48	04:41 22:10
29	08:20 16:39		06:57 19:47	05:37 20:51	04:39 21:48	04:37 22:10
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09
31	08:17 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Total, worst case		402	62	259		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.62	0.62	0.65		
Total reduction		0.12	0.24	0.31		
Total, real		47	15	79		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	04:31 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:53 (C1) 09:04 (C1)	07:42 16:17
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:49 (C1) 09:06 (C1)	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:47 (C1) 09:08 (C1)	07:46 16:13
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:46 (C1) 09:09 (C1)	07:49 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	08:44 (C1) 09:10 (C1)	07:51 16:09
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:44 (C1) 09:11 (C1)	07:53 16:07
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	08:43 (C1) 09:11 (C1)	07:55 16:06
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:42 (C1) 09:11 (C1)	07:57 16:04
18	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	08:41 (C1) 09:11 (C1)	07:59 16:02
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:42 (C1) 09:12 (C1)	08:01 16:01
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:41 (C1) 09:11 (C1)	08:03 15:59
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:41 (C1) 09:10 (C1)	08:05 15:58
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:41 (C1) 09:10 (C1)	08:07 15:56
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:42 (C1) 09:10 (C1)	08:09 15:55
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:43 (C1) 09:08 (C1)	08:11 15:53
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	07:43 (C1) 08:07 (C1)	08:13 15:52
26	05:04 21:39	06:05 20:30	07:07 19:07	08:10 16:50	07:45 (C1) 08:07 (C1)	08:15 15:51
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47	07:46 (C1) 08:05 (C1)	08:17 15:49
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	07:47 (C1) 08:02 (C1)	08:19 15:48
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	07:51 (C1) 08:00 (C1)	08:21 15:47
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		260		472		
Sun reduction		0.50		0.26		
Oper. time red.		0.94		0.94		
Wind dir. red.		0.65		0.62		
Total reduction		0.30		0.15		
Total, real		79		71		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:50 15:48	08:15 16:45	07:11 17:47	07:47 (C12) 19:53	07:27 (C11) 20:55	04:36 21:52
2	08:50 15:49	08:13 16:47	07:08 17:50	07:46 (C12) 19:55	07:26 (C11) 20:57	04:35 21:54
3	08:50 15:51	08:11 16:50	07:05 17:52	07:46 (C12) 19:57	07:24 (C11) 20:59	04:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	07:46 (C12) 19:59	07:24 (C11) 21:01	04:33 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	07:45 (C12) 20:01	07:23 (C11) 21:03	04:32 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	07:46 (C12) 20:03	07:23 (C11) 21:05	04:31 21:59
7	08:48 15:56	08:02 16:59	06:55 18:00	07:46 (C12) 20:05	07:23 (C11) 21:08	04:30 22:00
8	08:47 15:58	08:00 17:01	16:14 (C16) 18:03	07:46 (C12) 20:07	07:22 (C11) 21:10	04:29 22:01
9	08:47 15:59	07:58 17:03	16:10 (C16) 18:05	07:47 (C12) 20:09	07:22 (C11) 21:12	04:28 22:02
10	08:46 16:01	07:56 17:05	16:08 (C16) 18:07	07:47 (C12) 20:12	07:22 (C11) 21:14	04:28 22:03
11	08:45 16:03	07:54 17:08	16:06 (C16) 18:09	07:48 (C12) 20:14	07:23 (C11) 21:16	04:27 22:04
12	08:44 16:04	07:52 17:10	16:06 (C16) 18:11	07:49 (C12) 20:16	07:22 (C11) 21:18	04:27 22:05
13	08:43 16:06	07:49 17:12	16:05 (C16) 18:13	07:53 (C12) 20:18	07:23 (C11) 21:19	04:26 22:06
14	08:42 16:08	07:47 17:14	16:04 (C16) 18:15	17:10 (C15) 20:20	07:24 (C11) 21:21	04:26 22:06
15	08:41 16:10	07:45 17:16	16:03 (C16) 18:17	17:10 (C15) 20:22	07:25 (C11) 21:23	04:26 22:07
16	08:40 16:12	07:42 17:19	16:02 (C16) 18:19	17:11 (C15) 20:24	07:26 (C11) 21:25	04:25 22:08
17	08:39 16:14	07:40 17:21	16:03 (C16) 18:22	17:11 (C15) 20:26	07:28 (C11) 21:27	04:25 22:08
18	08:37 16:16	07:38 17:23	16:02 (C16) 18:24	17:12 (C15) 20:28	07:30 (C11) 21:29	04:25 22:09
19	08:36 16:18	07:35 17:25	16:02 (C16) 18:26	17:14 (C15) 20:30	07:35 (C11) 21:31	04:25 22:09
20	08:35 16:20	07:33 17:28	16:02 (C16) 18:28	17:16 (C15) 20:32	07:38 (C11) 21:33	04:25 22:09
21	08:33 16:22	07:30 17:30	16:03 (C16) 18:30	17:17 (C15) 20:34	07:40 (C11) 21:35	04:25 22:10
22	08:32 16:24	07:28 17:32	16:02 (C16) 18:32	17:18 (C15) 20:37	07:42 (C11) 21:36	04:25 22:10
23	08:30 16:26	07:26 17:34	16:02 (C16) 18:34	17:19 (C15) 20:40	07:44 (C11) 21:38	04:26 22:10
24	08:29 16:28	07:23 17:36	16:03 (C16) 18:36	17:20 (C15) 20:43	07:46 (C11) 21:40	04:26 22:10
25	08:27 16:30	07:21 17:39	16:04 (C16) 18:38	17:21 (C15) 20:46	07:48 (C11) 21:42	04:26 22:10
26	08:25 16:32	07:18 17:41	16:05 (C16) 18:40	17:22 (C15) 20:49	07:50 (C11) 21:44	04:27 22:10
27	08:24 16:34	07:16 17:43	16:06 (C16) 18:42	17:23 (C15) 20:52	07:52 (C11) 21:46	04:27 22:10
28	08:22 16:36	07:13 17:45	16:07 (C16) 18:45	17:24 (C15) 20:55	07:54 (C11) 21:48	04:28 22:10
29	08:20 16:39	07:11 17:47	16:08 (C16) 18:48	17:25 (C15) 20:58	07:56 (C11) 21:50	04:28 22:10
30	08:18 16:41	07:09 17:49	16:09 (C16) 18:51	17:26 (C15) 21:01	07:58 (C11) 21:52	04:29 22:10
31	08:16 16:43	07:07 17:51	16:10 (C16) 18:54	17:27 (C15) 21:04	07:59 (C11) 21:54	04:29 22:10
Potential sun hours	235	266	366	426	508	528
Total, worst case		612	710	550	662	1010
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.66	0.64	0.65	0.67	0.67
Total reduction		0.13	0.25	0.31	0.36	0.35
Total, real		77	176	169	237	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)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December	
1	04:30		05:47 (C10)	05:16		05:58 (C10)	06:17		07:22 (C11)	07:17		08:30 (C12)	07:22		15:38 (C16)	08:24	
	22:09	34	06:21 (C10)	21:28	18	06:16 (C10)	20:14	33	07:55 (C11)	18:53	39	18:14 (C15)	16:36	18	15:56 (C16)	15:45	
2	04:31		05:47 (C10)	05:17		06:01 (C10)	06:19		07:21 (C11)	07:19		08:28 (C12)	07:25		15:40 (C16)	08:26	
	22:08	35	06:22 (C10)	21:26	13	06:14 (C10)	20:11	34	07:55 (C11)	18:51	43	18:14 (C15)	16:34	13	15:53 (C16)	15:44	
3	04:32		05:48 (C10)	05:19		06:05 (C10)	06:21		07:20 (C11)	07:21		08:26 (C12)	07:27		15:45 (C16)	08:27	
	22:08	34	06:22 (C10)	21:24	6	06:11 (C10)	20:09	35	07:55 (C11)	18:48	45	18:13 (C15)	16:31	3	15:48 (C16)	15:43	
4	04:33		05:48 (C10)	05:21			06:23		07:19 (C11)	07:23		08:24 (C12)	07:29			08:29	
	22:07	34	06:22 (C10)	21:21			20:06	35	07:54 (C11)	18:45	47	18:12 (C15)	16:29			15:42	
5	04:34		05:48 (C10)	05:23			06:25		07:19 (C11)	07:25		08:23 (C12)	07:31			08:31	
	22:06	35	06:23 (C10)	21:19			20:03	35	07:54 (C11)	18:43	45	18:10 (C15)	16:27			15:42	
6	04:35		05:48 (C10)	05:25			06:27		07:18 (C11)	07:27		08:22 (C12)	07:33			08:32	
	22:06	35	06:23 (C10)	21:17			20:01	36	07:54 (C11)	18:40	45	18:09 (C15)	16:25			15:41	
7	04:36		05:48 (C10)	05:27			06:29		07:18 (C11)	07:29		08:21 (C12)	07:35			08:34	
	22:05	35	06:23 (C10)	21:15			19:58	35	07:53 (C11)	18:38	41	18:06 (C15)	16:23			15:40	
8	04:37		05:48 (C10)	05:29			06:31		07:18 (C11)	07:31		08:21 (C12)	07:38			08:35	
	22:04	36	06:24 (C10)	21:13			19:55	35	07:53 (C11)	18:35	35	18:03 (C15)	16:21			15:40	
9	04:38		05:48 (C10)	05:31			06:33		07:19 (C11)	07:33		08:20 (C12)	07:40			08:36	
	22:03	36	06:24 (C10)	21:11			19:53	33	07:52 (C11)	18:32	29	08:49 (C12)	16:19			15:39	
10	04:39		05:48 (C10)	05:33			06:35		07:19 (C11)	07:36		08:21 (C12)	07:42			08:38	
	22:02	36	06:24 (C10)	21:08			19:50	32	07:51 (C11)	18:30	29	08:50 (C12)	16:17			15:39	
11	04:41		05:48 (C10)	05:35			06:37		07:19 (C11)	07:38		08:20 (C12)	07:44			08:39	
	22:01	36	06:24 (C10)	21:06			19:47	31	07:50 (C11)	18:27	29	08:49 (C12)	16:15			15:38	
12	04:42		05:49 (C10)	05:37			06:39		07:20 (C11)	07:40		08:20 (C12)	07:46			08:40	
	22:00	36	06:25 (C10)	21:04			19:45	29	07:49 (C11)	18:25	28	08:48 (C12)	16:13			15:38	
13	04:43		05:49 (C10)	05:39			06:41		07:21 (C11)	07:42		08:21 (C12)	07:48			08:41	
	21:59	36	06:25 (C10)	21:01			19:42	26	07:47 (C11)	18:22	34	16:54 (C16)	16:11			15:38	
14	04:45		05:49 (C10)	05:41			06:43		07:23 (C11)	07:44		08:21 (C12)	07:50			08:42	
	21:58	36	06:25 (C10)	20:59			19:39	22	07:45 (C11)	18:19	41	16:57 (C16)	16:09			15:38	
15	04:46		05:48 (C10)	05:43			06:45		07:24 (C11)	07:46		08:22 (C12)	07:53			08:43	
	21:56	36	06:24 (C10)	20:57			19:37	19	07:43 (C11)	18:17	41	16:58 (C16)	16:07			15:38	
16	04:48		05:49 (C10)	05:45			06:47		07:27 (C11)	07:48		08:24 (C12)	07:55			08:44	
	21:55	36	06:25 (C10)	20:54			19:34	12	07:39 (C11)	18:14	42	17:00 (C16)	16:06			15:38	
17	04:49		05:49 (C10)	05:47			06:49			07:50		08:25 (C12)	07:57			08:45	
	21:54	36	06:25 (C10)	20:52			19:31			18:12	41	17:01 (C16)	16:04			15:38	
18	04:51		05:50 (C10)	05:49			06:51			07:52		08:27 (C12)	07:59			08:46	
	21:52	35	06:25 (C10)	20:49			19:28			18:09	38	17:02 (C16)	16:02			15:38	
19	04:52		05:50 (C10)	05:51			06:53			07:54		16:34 (C16)	08:01			08:47	
	21:51	35	06:25 (C10)	20:47			19:26			18:07	28	17:02 (C16)	16:01			15:38	
20	04:54		05:50 (C10)	05:53			06:55			07:56		16:34 (C16)	08:03			08:48	
	21:49	35	06:25 (C10)	20:44			19:23			18:04	29	17:03 (C16)	15:59			15:39	
21	04:56		05:50 (C10)	05:55			06:57			07:59		16:33 (C16)	08:05			08:48	
	21:48	35	06:25 (C10)	20:42			19:20			18:02	30	17:03 (C16)	15:58			15:39	
22	04:57		05:51 (C10)	05:57			06:59			08:01		16:32 (C16)	08:07			08:49	
	21:46	34	06:25 (C10)	20:39			19:18			17:59	31	17:03 (C16)	15:56			15:39	
23	04:59		05:51 (C10)	05:59			07:01		18:01 (C15)	08:03		16:33 (C16)	08:09			08:49	
	21:44	33	06:24 (C10)	20:37			19:15	6	18:07 (C15)	17:57	30	17:03 (C16)	15:55			15:40	
24	05:01		05:52 (C10)	06:01		07:38 (C11)	07:03		17:57 (C15)	08:05		16:32 (C16)	08:11			08:50	
	21:43	32	06:24 (C10)	20:34	5	07:43 (C11)	19:12	13	18:10 (C15)	17:54	31	17:03 (C16)	15:53			15:40	
25	05:03		05:51 (C10)	06:03		07:32 (C11)	07:05		17:55 (C15)	07:07		15:32 (C16)	08:13			08:50	
	21:41	32	06:23 (C10)	20:32	15	07:47 (C11)	19:10	17	18:12 (C15)	16:52	30	16:02 (C16)	15:52			15:41	
26	05:04		05:52 (C10)	06:05		07:29 (C11)	07:07		17:53 (C15)	07:09		15:32 (C16)	08:15			08:50	
	21:39	31	06:23 (C10)	20:29	20	07:49 (C11)	19:07	20	18:13 (C15)	16:50	29	16:01 (C16)	15:51			15:42	
27	05:06		05:53 (C10)	06:07		07:27 (C11)	07:09		17:52 (C15)	07:12		15:33 (C16)	08:17			08:51	
	21:37	30	06:23 (C10)	20:27	24	07:51 (C11)	19:04	22	18:14 (C15)	16:47	28	16:01 (C16)	15:49			15:43	
28	05:08		05:54 (C10)	06:09		07:26 (C11)	07:11		17:51 (C15)	07:14		15:33 (C16)	08:19			08:51	
	21:35	27	06:21 (C10)	20:24	26	07:52 (C11)	19:01	23	18:14 (C15)	16:45	27	16:00 (C16)	15:48			15:44	
29	05:10		05:55 (C10)	06:11		07:24 (C11)	07:13		17:50 (C15)	07:16		15:35 (C16)	08:20			08:51	
	21:34	26	06:21 (C10)	20:22	29	07:53 (C11)	18:59	24	18:14 (C15)	16:43	25	16:00 (C16)	15:47			15:45	
30	05:12		05:56 (C10)	06:13		07:23 (C11)	07:15		08:35 (C12)	07:18		15:35 (C16)	08:22			08:51	
	21:32	24	06:20 (C10)	20:19	31	07:54 (C11)	18:56	31	18:15 (C15)	16:40	24	15:59 (C16)	15:46			15:46	
31	05:14		05:58 (C10)	06:15		07:22 (C11)				07:20		15:36 (C16)				08:51	
	21:30	21	06:19 (C10)	20:16	32	07:54 (C11)				16:38	21	15:57 (C16)				15:47	
Potential sun hours	529			469			385			324			247			216	
Total, worst case		1032			219		638			1055			34				
Sun reduction		0.49			0.50		0.43			0.26			0.08				
Oper. time red.		0.94			0.94		0.94			0.94			0.94				
Wind dir. red.		0.67			0.66		0.65			0.65			0.67				
Total reduction		0.31			0.31		0.26			0.16			0.05				
Total, real		321			67		167			167			2				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Azimuth: 0.0° Slope: 90.0° (127)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:50 15:48	08:15 16:45	07:11 17:47	07:49 (C12) 19:53	07:28 (C11) 20:55	04:36 21:52
2	08:50 15:49	08:13 16:47	07:08 17:50	07:48 (C12) 19:55	07:27 (C11) 20:57	04:35 21:54
3	08:50 15:51	08:11 16:50	07:05 17:52	07:48 (C12) 19:57	07:25 (C11) 20:59	04:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	07:47 (C12) 19:59	07:25 (C11) 21:01	04:33 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	07:47 (C12) 20:01	07:24 (C11) 21:03	04:32 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	07:48 (C12) 20:03	07:24 (C11) 21:05	04:31 21:59
7	08:48 15:56	08:02 16:59	06:55 18:00	07:47 (C12) 20:05	07:23 (C11) 21:08	04:30 22:00
8	08:47 15:58	08:00 17:01	16:16 (C16) 18:03	07:48 (C12) 20:07	07:23 (C11) 21:10	04:29 22:01
9	08:47 15:59	07:58 17:03	16:12 (C16) 18:05	07:49 (C12) 20:09	07:23 (C11) 21:12	04:28 22:02
10	08:46 16:01	07:56 17:05	16:10 (C16) 18:07	07:49 (C12) 20:12	07:23 (C11) 21:14	04:28 22:03
11	08:45 16:03	07:54 17:08	16:07 (C16) 18:09	07:50 (C12) 20:14	07:24 (C11) 21:16	05:50 (C10) 22:04
12	08:44 16:04	07:52 17:10	16:07 (C16) 18:11	07:52 (C12) 20:16	07:23 (C11) 21:18	05:48 (C10) 22:05
13	08:43 16:06	07:49 17:12	16:06 (C16) 18:13	07:56 (C12) 20:18	07:25 (C11) 21:19	05:46 (C10) 22:06
14	08:42 16:08	07:47 17:14	16:05 (C16) 18:15	07:50 (C12) 20:20	07:25 (C11) 21:21	05:45 (C10) 22:06
15	08:41 16:10	07:45 17:16	16:05 (C16) 18:17	07:50 (C12) 20:22	07:26 (C11) 21:23	05:44 (C10) 22:07
16	08:40 16:12	07:42 17:19	16:03 (C16) 18:19	07:51 (C12) 20:24	07:27 (C11) 21:25	05:43 (C10) 22:08
17	08:39 16:14	07:40 17:21	16:04 (C16) 18:22	07:51 (C12) 20:26	07:29 (C11) 21:27	05:43 (C10) 22:08
18	08:37 16:16	07:38 17:23	16:03 (C16) 18:24	07:52 (C12) 20:28	07:31 (C11) 21:29	05:42 (C10) 22:09
19	08:36 16:18	07:35 17:25	16:03 (C16) 18:26	07:53 (C12) 20:30	07:32 (C11) 21:31	05:41 (C10) 22:09
20	08:35 16:20	07:33 17:28	16:03 (C16) 18:28	07:53 (C12) 20:32	07:33 (C11) 21:33	05:41 (C10) 22:09
21	08:33 16:22	07:30 17:30	16:04 (C16) 18:30	07:54 (C12) 20:34	07:34 (C11) 21:35	05:40 (C10) 22:10
22	08:32 16:24	07:28 17:32	16:04 (C16) 18:32	07:54 (C12) 20:37	07:35 (C11) 21:36	05:40 (C10) 22:10
23	08:30 16:26	07:26 17:34	16:32 (C16) 18:34	07:58 (C12) 20:39	07:39 (C11) 21:38	05:39 (C10) 22:10
24	08:29 16:28	07:23 17:36	16:31 (C16) 18:36	07:55 (C12) 20:41	07:40 (C11) 21:40	05:40 (C10) 22:10
25	08:27 16:30	07:21 17:39	16:31 (C16) 18:38	07:53 (C12) 20:43	07:41 (C11) 21:41	05:40 (C10) 22:10
26	08:25 16:32	07:18 17:41	16:29 (C16) 18:40	07:52 (C12) 20:45	07:42 (C11) 21:43	05:40 (C10) 22:10
27	08:24 16:34	07:16 17:43	16:28 (C16) 18:42	07:50 (C12) 20:47	07:43 (C11) 21:45	05:39 (C10) 22:10
28	08:22 16:36	07:13 17:45	16:26 (C16) 18:44	07:50 (C12) 20:49	07:44 (C11) 21:46	05:39 (C10) 22:10
29	08:20 16:39	07:11 17:47	16:23 (C16) 18:45	07:50 (C12) 20:51	07:45 (C11) 21:48	05:39 (C10) 22:09
30	08:18 16:41	07:09 17:49	16:23 (C16) 18:47	07:50 (C12) 20:53	07:46 (C11) 21:49	05:39 (C10) 22:09
31	08:16 16:43	07:07 17:51	16:23 (C16) 18:49	07:50 (C12) 20:55	07:47 (C11) 21:51	05:40 (C10) 22:09
Potential sun hours	235	266	366	426	508	528
Total, worst case		610	708	554	656	1041
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.66	0.64	0.65	0.67	0.67
Total reduction		0.13	0.25	0.31	0.36	0.35
Total, real		76	175	170	235	367

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July			August			September			October			November			December	
1	04:30		05:46 (C10)	05:16		05:59 (C10)	06:17		07:23 (C11)	07:17		08:33 (C12)	07:22		15:40 (C16)	08:24	
	22:09	35	06:21 (C10)	21:28	17	06:16 (C10)	20:14	33	07:56 (C11)	18:53	36	18:14 (C15)	16:36	16	15:56 (C16)	15:45	
2	04:31		05:47 (C10)	05:17		06:02 (C10)	06:19		07:22 (C11)	07:19		08:30 (C12)	07:25		15:42 (C16)	08:26	
	22:08	35	06:22 (C10)	21:26	11	06:13 (C10)	20:11	34	07:56 (C11)	18:51	42	18:14 (C15)	16:34	11	15:53 (C16)	15:44	
3	04:32		05:47 (C10)	05:19			06:21		07:21 (C11)	07:21		08:28 (C12)	07:27			08:27	
	22:08	35	06:22 (C10)	21:24			20:09	36	07:57 (C11)	18:48	44	18:13 (C15)	16:31			15:43	
4	04:33		05:47 (C10)	05:21			06:23		07:20 (C11)	07:23		08:26 (C12)	07:29			08:29	
	22:07	36	06:23 (C10)	21:21			20:06	36	07:56 (C11)	18:45	46	18:12 (C15)	16:29			15:42	
5	04:34		05:47 (C10)	05:23			06:25		07:20 (C11)	07:25		08:25 (C12)	07:31			08:31	
	22:06	36	06:23 (C10)	21:19			20:03	35	07:55 (C11)	18:43	46	18:11 (C15)	16:27			15:42	
6	04:35		05:48 (C10)	05:25			06:27		07:19 (C11)	07:27		08:24 (C12)	07:33			08:32	
	22:06	35	06:23 (C10)	21:17			20:01	36	07:55 (C11)	18:40	45	18:09 (C15)	16:25			15:41	
7	04:36		05:48 (C10)	05:27			06:29		07:19 (C11)	07:29		08:23 (C12)	07:35			08:34	
	22:05	36	06:24 (C10)	21:15			19:58	36	07:55 (C11)	18:38	41	18:06 (C15)	16:23			15:40	
8	04:37		05:48 (C10)	05:29			06:31		07:19 (C11)	07:31		08:22 (C12)	07:38			08:35	
	22:04	36	06:24 (C10)	21:13			19:55	35	07:54 (C11)	18:35	37	18:03 (C15)	16:21			15:40	
9	04:38		05:48 (C10)	05:31			06:33		07:19 (C11)	07:33		08:22 (C12)	07:40			08:36	
	22:03	36	06:24 (C10)	21:11			19:53	34	07:53 (C11)	18:32	29	08:51 (C12)	16:19			15:39	
10	04:39		05:48 (C10)	05:33			06:35		07:20 (C11)	07:36		08:22 (C12)	07:42			08:38	
	22:02	36	06:24 (C10)	21:08			19:50	33	07:53 (C11)	18:30	29	08:51 (C12)	16:17			15:39	
11	04:41		05:48 (C10)	05:35			06:37		07:20 (C11)	07:38		08:22 (C12)	07:44			08:39	
	22:01	36	06:24 (C10)	21:06			19:47	32	07:52 (C11)	18:27	29	08:51 (C12)	16:15			15:38	
12	04:42		05:48 (C10)	05:37			06:39		07:21 (C11)	07:40		08:22 (C12)	07:46			08:40	
	22:00	37	06:25 (C10)	21:04			19:45	29	07:50 (C11)	18:25	28	08:50 (C12)	16:13			15:38	
13	04:43		05:48 (C10)	05:39			06:41		07:22 (C11)	07:42		08:22 (C12)	07:48			08:41	
	21:59	37	06:25 (C10)	21:01			19:42	27	07:49 (C11)	18:22	34	16:54 (C16)	16:11			15:38	
14	04:45		05:48 (C10)	05:41			06:43		07:23 (C11)	07:44		08:22 (C12)	07:50			08:42	
	21:58	37	06:25 (C10)	20:59			19:39	24	07:47 (C11)	18:19	40	16:57 (C16)	16:09			15:38	
15	04:46		05:48 (C10)	05:43			06:45		07:25 (C11)	07:46		08:23 (C12)	07:53			08:43	
	21:56	37	06:25 (C10)	20:57			19:37	20	07:45 (C11)	18:17	43	16:59 (C16)	16:07			15:38	
16	04:48		05:49 (C10)	05:45			06:47		07:27 (C11)	07:48		08:24 (C12)	07:55			08:44	
	21:55	36	06:25 (C10)	20:54			19:34	14	07:41 (C11)	18:14	44	17:01 (C16)	16:06			15:38	
17	04:49		05:49 (C10)	05:47			06:49			07:50		08:25 (C12)	07:57			08:45	
	21:54	36	06:25 (C10)	20:52			19:31			18:12	44	17:02 (C16)	16:04			15:38	
18	04:51		05:49 (C10)	05:49			06:51			07:52		08:27 (C12)	07:59			08:46	
	21:52	36	06:25 (C10)	20:49			19:28			18:09	41	17:02 (C16)	16:02			15:38	
19	04:52		05:49 (C10)	05:51			06:53			07:54		08:30 (C12)	08:01			08:47	
	21:51	36	06:25 (C10)	20:47			19:26			18:07	35	17:02 (C16)	16:01			15:38	
20	04:54		05:50 (C10)	05:53			06:55			07:56		16:35 (C16)	08:03			08:48	
	21:49	35	06:25 (C10)	20:44			19:23			18:04	29	17:04 (C16)	15:59			15:39	
21	04:56		05:50 (C10)	05:55			06:57			07:59		16:34 (C16)	08:05			08:48	
	21:48	35	06:25 (C10)	20:42			19:20			18:02	29	17:03 (C16)	15:58			15:39	
22	04:57		05:51 (C10)	05:57			06:59			08:01		16:33 (C16)	08:07			08:49	
	21:46	34	06:25 (C10)	20:39			19:18			17:59	30	17:03 (C16)	15:56			15:39	
23	04:59		05:51 (C10)	05:59			07:01			08:03		16:34 (C16)	08:09			08:49	
	21:44	33	06:24 (C10)	20:37			19:15			17:57	30	17:04 (C16)	15:55			15:40	
24	05:01		05:51 (C10)	06:01		07:39 (C11)	07:03		17:58 (C15)	08:05		16:33 (C16)	08:11			08:50	
	21:43	33	06:24 (C10)	20:34	5	07:44 (C11)	19:12	12	18:10 (C15)	17:54	30	17:03 (C16)	15:53			15:40	
25	05:03		05:51 (C10)	06:03		07:33 (C11)	07:05		17:56 (C15)	07:07		15:33 (C16)	08:13			08:50	
	21:41	32	06:23 (C10)	20:32	15	07:48 (C11)	19:10	16	18:12 (C15)	16:52	30	16:03 (C16)	15:52			15:41	
26	05:04		05:52 (C10)	06:05		07:30 (C11)	07:07		17:54 (C15)	07:09		15:33 (C16)	08:15			08:50	
	21:39	31	06:23 (C10)	20:29	20	07:50 (C11)	19:07	19	18:13 (C15)	16:50	29	16:02 (C16)	15:51			15:42	
27	05:06		05:53 (C10)	06:07		07:28 (C11)	07:09		17:52 (C15)	07:12		15:34 (C16)	08:17			08:51	
	21:37	29	06:22 (C10)	20:27	24	07:52 (C11)	19:04	21	18:13 (C15)	16:47	28	16:02 (C16)	15:49			15:43	
28	05:08		05:54 (C10)	06:09		07:27 (C11)	07:11		17:51 (C15)	07:14		15:34 (C16)	08:19			08:51	
	21:35	27	06:21 (C10)	20:24	26	07:53 (C11)	19:01	23	18:14 (C15)	16:45	27	16:01 (C16)	15:48			15:44	
29	05:10		05:55 (C10)	06:11		07:26 (C11)	07:13		17:50 (C15)	07:16		15:36 (C16)	08:20			08:51	
	21:34	25	06:20 (C10)	20:22	28	07:54 (C11)	18:59	24	18:14 (C15)	16:43	25	16:01 (C16)	15:47			15:45	
30	05:12		05:56 (C10)	06:13		07:24 (C11)	07:15		17:51 (C15)	07:18		15:36 (C16)	08:22			08:51	
	21:32	23	06:19 (C10)	20:19	31	07:55 (C11)	18:56	24	18:15 (C15)	16:40	23	15:59 (C16)	15:46			15:46	
31	05:14		05:58 (C10)	06:15		07:23 (C11)				07:20		15:37 (C16)				08:51	
	21:30	20	06:18 (C10)	20:16	33	07:56 (C11)				16:38	20	15:57 (C16)				15:47	
Potential sun hours	529			469			385			324			247			216	
Total, worst case		1041			210		633			1063			27				
Sun reduction		0.49			0.50		0.43			0.26			0.08				
Oper. time red.		0.94			0.94		0.94			0.94			0.94				
Wind dir. red.		0.67			0.66		0.65			0.65			0.67				
Total reduction		0.31			0.31		0.26			0.16			0.05				
Total, real		323			64		166			168			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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January		February		March	April	May		June	
1	08:51	12:53 (C13)	08:15	07:11	06:49		05:32	06:29 (C1)	04:36	
	15:48	18	13:11 (C13)	16:45	17:47	19:53	20:55	34	07:03 (C1)	21:53
2	08:50	12:55 (C13)	08:13	07:08	06:46		05:30	06:29 (C1)	04:35	
	15:49	16	13:11 (C13)	16:47	17:50	19:55	20:57	34	07:03 (C1)	21:54
3	08:50	12:56 (C13)	08:11	07:06	06:43		05:28	06:29 (C1)	04:34	
	15:51	14	13:10 (C13)	16:50	17:52	19:57	21:00	34	07:03 (C1)	21:55
4	08:50	12:57 (C13)	08:09	07:03	06:41		05:26	06:30 (C1)	04:33	
	15:52	13	13:10 (C13)	16:52	17:54	19:59	21:02	32	07:02 (C1)	21:57
5	08:49	12:59 (C13)	08:07	07:00	06:38		05:23	06:30 (C1)	04:32	
	15:53	10	13:09 (C13)	16:54	17:56	20:01	21:04	32	07:02 (C1)	21:58
6	08:49	13:01 (C13)	08:05	06:58	06:35		05:21	06:31 (C1)	04:31	
	15:55	7	13:08 (C13)	16:56	17:58	20:03	21:06	30	07:01 (C1)	21:59
7	08:48		08:03	06:55	06:33		05:19	06:31 (C1)	04:30	
	15:56		16:59	18:00	20:05		21:08	29	07:00 (C1)	22:00
8	08:48		08:00	06:53	06:30		05:17	06:32 (C1)	04:29	
	15:58		17:01	18:03	20:08		21:10	27	06:59 (C1)	22:01
9	08:47		07:58	06:50	06:27		05:15	06:33 (C1)	04:28	
	15:59		17:03	18:05	20:10		21:12	25	06:58 (C1)	22:02
10	08:46		07:56	06:47	06:25		05:13	06:34 (C1)	04:28	
	16:01		17:05	18:07	20:12		21:14	23	06:57 (C1)	22:03
11	08:45		07:54	06:45	06:22		05:10	06:35 (C1)	04:27	
	16:03		17:08	18:09	20:14		21:16	20	06:55 (C1)	22:04
12	08:44		07:52	06:42	06:20		05:08	06:36 (C1)	04:27	
	16:04		17:10	18:11	20:16		21:18	17	06:53 (C1)	22:05
13	08:43		07:49	06:39	06:17		05:06	06:38 (C1)	04:26	
	16:06		17:12	18:13	20:18		21:20	13	06:51 (C1)	22:06
14	08:42		07:47	06:37	06:14		05:04	06:44 (C1)	04:26	
	16:08		17:14	18:15	20:20		21:22	3	06:47 (C1)	22:07
15	08:41		07:45	06:34	06:12		05:02		04:26	
	16:10		17:17	18:17	20:22		21:24		22:07	
16	08:40		07:43	06:32	06:09		05:01		04:25	
	16:12		17:19	18:20	20:24		21:25		22:08	
17	08:39		07:40	06:29	06:07		06:43 (C1)	04:59	04:25	
	16:14		17:21	18:22	20:26	13	06:56 (C1)	21:27	22:08	
18	08:37		07:38	06:26	06:04		06:39 (C1)	04:57	04:25	
	16:16		17:23	18:24	20:28	19	06:58 (C1)	21:29	22:09	
19	08:36		07:35	06:24	06:02		06:38 (C1)	04:55	04:25	
	16:18		17:25	18:26	20:30	22	07:00 (C1)	21:31	22:09	
20	08:35		07:33	06:21	05:59		06:35 (C1)	04:53	04:25	
	16:20		17:28	18:28	20:33	26	07:01 (C1)	21:33	22:10	
21	08:33		07:31	06:18	05:57		06:34 (C1)	04:52	04:25	
	16:22		17:30	18:30	20:35	28	07:02 (C1)	21:35	22:10	
22	08:32		07:28	06:15	05:54		06:33 (C1)	04:50	04:25	
	16:24		17:32	18:32	20:37	30	07:03 (C1)	21:37	22:10	
23	08:30		07:26	06:13	05:52		06:32 (C1)	04:48	04:26	
	16:26		17:34	18:34	20:39	31	07:03 (C1)	21:38	22:10	
24	08:29		07:23	06:10	05:49		06:31 (C1)	04:47	04:26	
	16:28		17:37	18:36	20:41	33	07:04 (C1)	21:40	22:10	
25	08:27		07:21	06:07	05:47		06:31 (C1)	04:45	04:26	
	16:30		17:39	18:38	20:43	33	07:04 (C1)	21:42	22:10	
26	08:26		07:18	06:05	05:44		06:30 (C1)	04:44	04:27	
	16:32		17:41	18:40	20:45	34	07:04 (C1)	21:43	22:10	
27	08:24		07:16	06:02	05:42		06:29 (C1)	04:42	04:27	
	16:34		17:43	18:43	20:47	35	07:04 (C1)	21:45	22:10	
28	08:22		07:13	05:59	05:40		06:29 (C1)	04:41	04:28	
	16:36		17:45	18:45	20:49	35	07:04 (C1)	21:47	22:10	
29	08:20			06:57	05:37		06:29 (C1)	04:39	04:28	
	16:39			19:47	20:51	36	07:05 (C1)	21:48	22:10	
30	08:18			06:54	05:35		06:29 (C1)	04:38	04:29	
	16:41			19:49	20:53	35	07:04 (C1)	21:50	22:09	
31	08:17			06:51				04:37		
	16:43			19:51				21:51		
Potential sun hours	235		266	366	426		508		529	
Total, worst case	78				410		353			
Sun reduction	0.13				0.50		0.57			
Oper. time red.	0.94				0.94		0.94			
Wind dir. red.	0.64				0.65		0.65			
Total reduction	0.08				0.31		0.35			
Total, real	6				125		123			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:46 (C1) 07:04 (C1)	06:17 20:14	07:17 18:54	08:24 16:36
2	04:31 22:09	05:17 21:26	06:45 (C1) 07:06 (C1)	06:19 20:11	07:19 18:51	08:26 16:34
3	04:32 22:08	05:19 21:24	06:44 (C1) 07:07 (C1)	06:21 20:09	07:21 18:48	08:28 16:31
4	04:33 22:07	05:21 21:22	06:43 (C1) 07:09 (C1)	06:23 20:06	07:23 18:46	08:29 16:29
5	04:34 22:07	05:23 21:19	06:41 (C1) 07:09 (C1)	06:25 20:03	07:25 18:43	08:31 16:27
6	04:35 22:06	05:25 21:17	06:40 (C1) 07:10 (C1)	06:27 20:01	07:27 18:40	08:32 16:25
7	04:36 22:05	05:27 21:15	06:40 (C1) 07:11 (C1)	06:29 19:58	07:29 18:38	08:34 16:23
8	04:37 22:04	05:29 21:13	06:39 (C1) 07:11 (C1)	06:31 19:55	07:32 18:35	08:35 16:21
9	04:38 22:03	05:31 21:11	06:39 (C1) 07:12 (C1)	06:33 19:53	07:34 18:32	08:37 16:19
10	04:39 22:02	05:33 21:08	06:38 (C1) 07:11 (C1)	06:35 19:50	07:36 18:30	08:38 16:17
11	04:41 22:01	05:35 21:06	06:37 (C1) 07:12 (C1)	06:37 19:47	07:38 18:27	08:39 16:15
12	04:42 22:00	05:37 21:04	06:37 (C1) 07:12 (C1)	06:39 19:45	07:40 18:25	08:40 16:13
13	04:43 21:59	05:39 21:01	06:37 (C1) 07:12 (C1)	06:41 19:42	07:42 18:22	08:42 16:11
14	04:45 21:58	05:41 20:59	06:37 (C1) 07:12 (C1)	06:43 19:39	07:44 18:19	08:43 16:09
15	04:46 21:57	05:43 20:57	06:37 (C1) 07:12 (C1)	06:45 19:37	07:46 18:17	08:44 16:07
16	04:48 21:55	05:45 20:54	06:37 (C1) 07:12 (C1)	06:47 19:34	07:48 18:14	08:45 16:06
17	04:49 21:54	05:47 20:52	06:36 (C1) 07:10 (C1)	06:49 19:31	07:50 18:12	08:46 16:04
18	04:51 21:52	05:49 20:50	06:37 (C1) 07:10 (C1)	06:51 19:29	07:52 18:09	08:48 16:02
19	04:52 21:51	05:51 20:47	06:37 (C1) 07:09 (C1)	06:53 19:26	07:55 18:07	08:47 16:01
20	04:54 21:49	05:53 20:45	06:38 (C1) 07:09 (C1)	06:55 19:23	07:57 18:04	08:48 15:59
21	04:56 21:48	05:55 20:42	06:38 (C1) 07:08 (C1)	06:57 19:20	07:59 18:02	08:48 15:58
22	04:57 21:46	05:57 20:40	06:39 (C1) 07:07 (C1)	06:59 19:18	08:01 17:59	08:49 15:56
23	04:59 21:45	05:59 20:37	06:40 (C1) 07:05 (C1)	07:01 19:15	08:03 17:57	08:50 15:55
24	05:01 21:43	06:01 20:35	06:42 (C1) 07:03 (C1)	07:03 19:12	08:05 17:55	08:51 15:53
25	05:03 21:41	06:03 20:32	06:43 (C1) 07:01 (C1)	07:05 19:10	08:07 16:52	08:50 15:52
26	05:04 21:39	06:05 20:29	06:45 (C1) 06:57 (C1)	07:07 19:07	08:15 16:50	08:51 15:51
27	05:06 21:38	06:07 20:27		07:09 19:04	08:17 16:47	08:51 15:49
28	05:08 21:36	06:09 20:24		07:11 19:02	08:19 16:45	08:51 15:48
29	05:10 21:34	06:11 20:22		07:13 18:59	08:21 16:43	08:51 15:47
30	05:12 21:32	06:52 (C1) 07:00 (C1)	06:13 20:19	07:15 18:56	08:22 16:40	08:51 15:46
31	05:14 21:30	06:49 (C1) 07:03 (C1)	06:15 20:17		08:20 16:38	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	22	749				489
Sun reduction	0.49	0.50				0.07
Oper. time red.	0.94	0.94				0.94
Wind dir. red.	0.65	0.65				0.64
Total reduction	0.30	0.30				0.04
Total, real	7	228				21

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	14:30 (C13) 15:12 (C13)	07:11 17:47	06:49 19:53	05:32 20:55
2	08:50 15:49	08:13 16:47	14:31 (C13) 15:12 (C13)	07:08 17:50	06:46 19:55	05:30 20:57
3	08:50 15:51	08:11 16:50	14:31 (C13) 15:12 (C13)	07:06 17:52	06:43 19:57	05:28 20:59
4	08:50 15:52	08:09 16:52	14:32 (C13) 15:12 (C13)	07:03 17:54	06:41 19:59	05:26 21:02
5	08:49 15:53	08:07 16:54	14:33 (C13) 15:12 (C13)	07:00 17:56	06:38 20:01	05:23 21:04
6	08:49 15:55	14:41 (C13) 14:45 (C13)	08:05 16:56	14:33 (C13) 15:11 (C13)	06:58 17:58	06:35 20:03
7	08:48 15:56	14:38 (C13) 14:48 (C13)	08:03 16:59	14:34 (C13) 15:11 (C13)	06:55 18:00	06:33 20:05
8	08:47 15:58	14:37 (C13) 14:51 (C13)	08:00 17:01	14:35 (C13) 15:10 (C13)	06:53 18:03	06:30 20:07
9	08:47 15:59	14:36 (C13) 14:53 (C13)	07:58 17:03	14:35 (C13) 15:09 (C13)	06:50 18:05	06:27 20:10
10	08:46 16:01	14:35 (C13) 14:55 (C13)	07:56 17:05	14:37 (C13) 15:08 (C13)	06:47 18:07	06:25 20:12
11	08:45 16:03	14:34 (C13) 14:56 (C13)	07:54 17:08	14:39 (C13) 15:07 (C13)	06:45 18:09	06:22 20:14
12	08:44 16:04	14:33 (C13) 14:57 (C13)	07:52 17:10	14:40 (C13) 15:05 (C13)	06:42 18:11	06:20 20:16
13	08:43 16:06	14:33 (C13) 14:59 (C13)	07:49 17:12	14:42 (C13) 15:04 (C13)	06:39 18:13	06:17 20:18
14	08:42 16:08	14:33 (C13) 15:00 (C13)	07:47 17:14	14:45 (C13) 15:00 (C13)	06:37 18:15	06:14 20:20
15	08:41 16:10	14:31 (C13) 15:01 (C13)	07:45 17:17	06:34 18:17	06:12 20:22	06:43 (C4) 20:18
16	08:40 16:12	14:32 (C13) 15:02 (C13)	07:43 17:19	06:31 18:20	06:09 20:24	06:50 (C4) 20:20
17	08:39 16:14	14:31 (C13) 15:03 (C13)	07:40 17:21	06:29 18:22	06:07 20:26	06:40 (C4) 20:24
18	08:37 16:16	14:31 (C13) 15:05 (C13)	07:38 17:23	06:26 18:24	06:04 20:28	06:38 (C4) 20:26
19	08:36 16:18	14:30 (C13) 15:05 (C13)	07:35 17:25	06:23 18:26	06:02 20:30	06:52 (C4) 20:22
20	08:35 16:20	14:31 (C13) 15:07 (C13)	07:33 17:28	06:21 18:28	06:38 (C4) 20:32	06:52 (C4) 20:20
21	08:33 16:22	14:30 (C13) 15:07 (C13)	07:31 17:30	06:18 18:30	06:32 (C4) 20:35	06:56 (C4) 20:24
22	08:32 16:24	14:30 (C13) 15:08 (C13)	07:28 17:32	06:15 18:32	06:30 (C4) 20:37	06:56 (C4) 20:26
23	08:30 16:26	14:29 (C13) 15:08 (C13)	07:26 17:34	06:13 18:34	06:52 (C4) 20:39	06:56 (C4) 20:28
24	08:29 16:28	14:29 (C13) 15:09 (C13)	07:23 17:37	06:10 18:36	06:54 (C4) 20:41	06:55 (C4) 20:30
25	08:27 16:30	14:30 (C13) 15:10 (C13)	07:21 17:39	06:07 18:38	06:57 (C4) 20:43	06:56 (C4) 20:32
26	08:25 16:32	14:30 (C13) 15:11 (C13)	07:18 17:41	06:05 18:40	06:54 (C4) 20:45	06:56 (C4) 20:34
27	08:24 16:34	14:30 (C13) 15:11 (C13)	07:16 17:43	06:02 18:43	06:53 (C4) 20:47	06:56 (C4) 20:36
28	08:22 16:36	14:30 (C13) 15:11 (C13)	07:13 17:45	05:59 18:45	06:50 (C4) 20:49	06:56 (C4) 20:38
29	08:20 16:39	14:30 (C13) 15:12 (C13)		06:57 19:47	06:38 (C4) 20:51	06:56 (C4) 20:40
30	08:18 16:41	14:30 (C13) 15:12 (C13)		06:54 19:49	06:48 (C4) 20:53	06:56 (C4) 20:42
31	08:17 16:43	14:30 (C13) 15:11 (C13)		06:51 19:51		06:56 (C4) 20:44
Potential sun hours	235	266	366	426	508	529
Total, worst case	803	468		321		
Sun reduction	0.13	0.20		0.50		
Oper. time red.	0.94	0.94		0.94		
Wind dir. red.	0.66	0.66		0.65		
Total reduction	0.08	0.13		0.31		
Total, real	67	59		99		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	14:06 (C13) 15:45
2	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	14:05 (C13) 15:44
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	14:04 (C13) 15:43
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	14:03 (C13) 15:42
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	14:02 (C13) 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	14:02 (C13) 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	14:02 (C13) 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	14:02 (C13) 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	14:01 (C13) 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	14:01 (C13) 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	14:01 (C13) 15:38
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	14:01 (C13) 15:38
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	14:02 (C13) 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	14:02 (C13) 15:38
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	14:02 (C13) 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	14:03 (C13) 15:38
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	14:03 (C13) 15:38
18	04:51 21:52	05:49 20:49	06:51 19:29	07:52 18:09	07:59 16:02	14:03 (C13) 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	14:04 (C13) 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	14:05 (C13) 15:39
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	14:05 (C13) 15:39
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	14:07 (C13) 15:39
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	14:07 (C13) 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	14:08 (C13) 15:40
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	14:09 (C13) 15:41
26	05:04 21:39	06:05 20:29	07:07 19:07	08:09 17:50	08:15 15:51	14:10 (C13) 15:42
27	05:06 21:37	06:07 20:27	07:09 19:04	08:11 17:47	08:17 15:49	14:11 (C13) 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:13 17:45	08:19 15:48	14:12 (C13) 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:15 17:43	08:21 15:47	14:13 (C13) 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:17 17:41	08:22 15:46	14:14 (C13) 15:46
31	05:14 21:30	06:15 20:17		08:19 17:38	08:24 15:45	14:15 (C13) 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		328		100	1099	88
Sun reduction		0.50		0.26	0.08	0.07
Oper. time red.		0.94		0.94	0.94	0.94
Wind dir. red.		0.65		0.66	0.66	0.66
Total reduction		0.31		0.16	0.05	0.04
Total, real		101		16	57	4

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
1	08:51		09:30 (C12)	08:15		09:00 (C11)	07:11			06:49			05:32		06:20 (C8)	04:36		06:16 (C8)
	15:48	13	09:43 (C12)	16:45	28	09:28 (C11)	17:47			19:53			20:55	32	06:52 (C8)	21:52	40	06:56 (C8)
2	08:50		09:29 (C12)	08:13		09:00 (C11)	07:08			06:46			05:30		06:19 (C8)	04:35		06:16 (C8)
	15:49	14	09:43 (C12)	16:47	29	09:29 (C11)	17:50			19:55			20:57	34	06:53 (C8)	21:54	40	06:56 (C8)
3	08:50		09:29 (C12)	08:11		09:00 (C11)	07:05		07:51 (C10)	06:43			05:28		06:18 (C8)	04:34		06:17 (C8)
	15:51	16	09:45 (C12)	16:50	30	09:30 (C11)	17:52	15	08:06 (C10)	19:57			20:59	36	06:54 (C8)	21:55	38	06:55 (C8)
4	08:50		09:28 (C12)	08:09		09:00 (C11)	07:03		07:47 (C10)	06:41			05:26		06:17 (C8)	04:33		06:17 (C8)
	15:52	17	09:45 (C12)	16:52	31	09:31 (C11)	17:54	22	08:09 (C10)	19:59			21:01	38	06:55 (C8)	21:56	38	06:55 (C8)
5	08:49		09:28 (C12)	08:07		08:59 (C11)	07:00		07:44 (C10)	06:38			05:23		06:16 (C8)	04:32		06:18 (C8)
	15:53	18	09:46 (C12)	16:54	31	09:30 (C11)	17:56	27	08:11 (C10)	20:01			21:03	40	06:56 (C8)	21:58	37	06:55 (C8)
6	08:49		09:29 (C12)	08:05		08:59 (C11)	06:58		07:43 (C10)	06:35			05:21		06:15 (C8)	04:31		06:19 (C8)
	15:55	19	09:48 (C12)	16:56	32	09:31 (C11)	17:58	30	08:13 (C10)	20:03			21:05	41	06:56 (C8)	21:59	36	06:55 (C8)
7	08:48		09:29 (C12)	08:02		08:59 (C11)	06:55		07:41 (C10)	06:33			05:19		06:15 (C8)	04:30		06:19 (C8)
	15:56	19	09:48 (C12)	16:58	33	09:32 (C11)	18:00	33	08:14 (C10)	20:05			21:08	42	06:57 (C8)	22:00	35	06:54 (C8)
8	08:47		09:29 (C12)	08:00		09:00 (C11)	06:53		07:39 (C10)	06:30			05:17		06:14 (C8)	04:29		06:20 (C8)
	15:58	20	09:49 (C12)	17:01	32	09:32 (C11)	18:02	36	08:15 (C10)	20:07			21:10	43	06:57 (C8)	22:01	35	06:55 (C8)
9	08:47		09:29 (C12)	07:58		08:59 (C11)	06:50		07:39 (C10)	06:27			05:15		06:13 (C8)	04:28		06:20 (C8)
	15:59	21	09:50 (C12)	17:03	32	09:31 (C11)	18:05	37	08:16 (C10)	20:09			21:12	45	06:58 (C8)	22:02	34	06:54 (C8)
10	08:46		09:29 (C12)	07:56		09:00 (C11)	06:47		07:37 (C10)	06:25			05:12		06:13 (C8)	04:28		06:21 (C8)
	16:01	22	09:51 (C12)	17:05	31	09:31 (C11)	18:07	39	08:16 (C10)	20:12			21:14	45	06:58 (C8)	22:03	33	06:54 (C8)
11	08:45		09:29 (C12)	07:54		08:59 (C11)	06:45		07:36 (C10)	06:22			05:10		06:12 (C8)	04:27		06:21 (C8)
	16:03	23	09:52 (C12)	17:07	31	09:30 (C11)	18:09	40	08:16 (C10)	20:14			21:16	46	06:58 (C8)	22:04	33	06:54 (C8)
12	08:44		09:29 (C12)	07:52		09:00 (C11)	06:42		07:35 (C10)	06:20			05:08		06:12 (C8)	04:27		06:22 (C8)
	16:04	22	09:51 (C12)	17:10	30	09:30 (C11)	18:11	41	08:16 (C10)	20:16			21:18	46	06:58 (C8)	22:05	32	06:54 (C8)
13	08:43		09:29 (C12)	07:49		09:01 (C11)	06:39		07:35 (C10)	06:17			05:06		06:12 (C8)	04:26		06:22 (C8)
	16:06	23	09:52 (C12)	17:12	29	09:30 (C11)	18:13	42	08:17 (C10)	20:18			21:19	46	06:58 (C8)	22:06	32	06:54 (C8)
14	08:42		09:30 (C12)	07:47		09:02 (C11)	06:37		07:34 (C10)	06:14			05:04		06:12 (C8)	04:26		06:22 (C8)
	16:08	23	09:53 (C12)	17:14	27	09:29 (C11)	18:15	43	08:17 (C10)	20:20			21:21	47	06:59 (C8)	22:06	31	06:53 (C8)
15	08:41		09:29 (C12)	07:45		09:03 (C11)	06:34		07:33 (C10)	06:12			05:02		06:12 (C8)	04:26		06:23 (C8)
	16:10	24	09:53 (C12)	17:16	25	09:28 (C11)	18:17	43	08:16 (C10)	20:22			21:23	47	06:59 (C8)	22:07	30	06:53 (C8)
16	08:40		09:30 (C12)	07:42		09:04 (C11)	06:31		07:34 (C10)	06:09			05:00		06:11 (C8)	04:25		06:23 (C8)
	16:12	24	09:54 (C12)	17:19	22	09:26 (C11)	18:19	43	08:17 (C10)	20:24			21:25	47	06:58 (C8)	22:08	30	06:53 (C8)
17	08:39		09:30 (C12)	07:40		09:06 (C11)	06:29		07:33 (C10)	06:07			04:59		06:11 (C8)	04:25		06:24 (C8)
	16:14	24	09:54 (C12)	17:21	19	09:25 (C11)	18:22	43	08:16 (C10)	20:26			21:27	47	06:58 (C8)	22:08	30	06:54 (C8)
18	08:37		09:31 (C12)	07:38		09:08 (C11)	06:26		07:33 (C10)	06:04			04:57		06:12 (C8)	04:25		06:24 (C8)
	16:16	24	09:55 (C12)	17:23	13	09:21 (C11)	18:24	42	08:15 (C10)	20:28			21:29	47	06:59 (C8)	22:09	30	06:54 (C8)
19	08:36		09:31 (C12)	07:35			06:23		07:33 (C10)	06:02			04:55		06:11 (C8)	04:25		06:24 (C8)
	16:18	24	09:55 (C12)	17:25			18:26	42	08:15 (C10)	20:30			21:31	47	06:58 (C8)	22:09	30	06:54 (C8)
20	08:35		09:31 (C12)	07:33			06:21		07:33 (C10)	05:59			04:53		06:12 (C8)	04:25		06:24 (C8)
	16:20	24	09:55 (C12)	17:28			18:28	41	08:14 (C10)	20:32			21:33	47	06:59 (C8)	22:10	30	06:54 (C8)
21	08:33		09:32 (C12)	07:31			06:18		07:33 (C10)	05:57			04:52		06:12 (C8)	04:25		06:24 (C8)
	16:22	23	09:55 (C12)	17:30			18:30	40	08:13 (C10)	20:34			21:35	46	06:58 (C8)	22:10	30	06:54 (C8)
22	08:32		09:32 (C12)	07:28			06:15		07:33 (C10)	05:54			04:50		06:12 (C8)	04:25		06:25 (C8)
	16:24	23	09:55 (C12)	17:32			18:32	38	08:11 (C10)	20:37			21:36	46	06:58 (C8)	22:10	30	06:55 (C8)
23	08:30		09:33 (C12)	07:26			06:13		07:35 (C10)	05:52			04:48		06:12 (C8)	04:26		06:25 (C8)
	16:26	22	09:55 (C12)	17:34			18:34	36	08:11 (C10)	20:39			21:38	46	06:58 (C8)	22:10	30	06:55 (C8)
24	08:29		09:33 (C12)	07:23			06:10		07:35 (C10)	05:49			04:47		06:13 (C8)	04:26		06:25 (C8)
	16:28	21	09:54 (C12)	17:36			18:36	34	08:09 (C10)	20:41			21:40	45	06:58 (C8)	22:10	30	06:55 (C8)
25	08:27		09:09 (C11)	07:21			06:07		07:36 (C10)	05:47			04:45		06:13 (C8)	04:26		06:26 (C8)
	16:30	27	09:54 (C12)	17:39			18:38	31	08:07 (C10)	20:43			21:41	45	06:58 (C8)	22:10	30	06:56 (C8)
26	08:25		09:07 (C11)	07:18			06:05		07:38 (C10)	05:44			04:44		06:13 (C8)	04:27		06:25 (C8)
	16:32	31	09:54 (C12)	17:41			18:40	28	08:06 (C10)	20:45			21:43	44	06:57 (C8)	22:10	31	06:56 (C8)
27	08:24		09:05 (C11)	07:16			06:02		07:39 (C10)	05:42		06:30 (C8)	04:42		06:14 (C8)	04:27		06:26 (C8)
	16:34	33	09:53 (C12)	17:43			18:42	24	08:03 (C10)	20:47	13	06:43 (C8)	21:45	43	06:57 (C8)	22:10	30	06:56 (C8)
28	08:22		09:04 (C11)	07:13			05:59		07:41 (C10)	05:39		06:27 (C8)	04:41		06:14 (C8)	04:28		06:25 (C8)
	16:36	32	09:52 (C12)	17:45			18:45	18	07:59 (C10)	20:49	20	06:47 (C8)	21:46	43	06:57 (C8)	22:10	31	06:56 (C8)
29	08:20		09:03 (C11)				06:57		08:46 (C10)	05:37		06:24 (C8)	04:39		06:15 (C8)	04:28		06:26 (C8)
	16:38	29	09:49 (C12)				19:47	9	08:55 (C10)	20:51	24	06:48 (C8)	21:48	42	06:57 (C8)	22:10	31	06:57 (C8)
30	08:18		09:01 (C11)				06:54			05:35		06:22 (C8)	04:38		06:15 (C8)	04:29		06:26 (C8)
	16:41	25	09:26 (C11)				19:49			20:53	28	06:50 (C8)	21:49	42	06:57 (C8)	22:09	32	06:58 (C8)
31	08:16		09:00 (C11)				06:51						04:37		06:16 (C8)			
	16:43	27	09:27 (C11)				19:51						21:51	40	06:56 (C8)			
Potential sun hours	235			266			366		426			508				529		
Total, worst case	707			505			917		85			1345				979		
Sun reduction	0.13			0.20			0.41		0.50			0.57				0.56		
Oper. time red.	0.94			0.94			0.94		0.94			0.94				0.94		
Wind dir. red.	0.60			0.59			0.62		0.66			0.66				0.66		
Total reduction	0.07			0.11			0.24		0.30			0.34				0.34		
Total, real	52			55			218		26			464				332		

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

July		August		September		October		November		December	
1	04:30	06:25 (C8)	05:16	06:22 (C8)	06:17	07:17	08:15 (C10)	07:22	08:29 (C11)	08:24	09:10 (C12)
2	22:09	33 06:58 (C8)	21:28	46 07:08 (C8)	20:14	18:53	41 08:56 (C10)	16:36	32 09:01 (C11)	15:45	23 09:33 (C12)
3	04:31	06:25 (C8)	05:17	06:23 (C8)	06:19	07:19	08:15 (C10)	07:25	08:29 (C11)	08:26	09:11 (C12)
4	22:08	33 06:58 (C8)	21:26	45 07:08 (C8)	20:11	18:51	41 08:56 (C10)	16:34	32 09:01 (C11)	15:44	22 09:33 (C12)
5	04:32	06:25 (C8)	05:19	06:23 (C8)	06:21	07:21	08:15 (C10)	07:27	08:28 (C11)	08:27	09:12 (C12)
6	22:08	34 06:59 (C8)	21:24	45 07:08 (C8)	20:09	18:48	40 08:55 (C10)	16:31	33 09:01 (C11)	15:43	21 09:33 (C12)
7	04:32	06:25 (C8)	05:21	06:24 (C8)	06:23	07:23	08:15 (C10)	07:29	08:29 (C11)	08:29	09:13 (C12)
8	22:07	35 07:00 (C8)	21:21	44 07:08 (C8)	20:06	18:45	38 08:53 (C10)	16:29	32 09:01 (C11)	15:42	20 09:33 (C12)
9	04:33	06:25 (C8)	05:23	06:23 (C8)	06:25	07:25	08:16 (C10)	07:31	08:28 (C11)	08:31	09:14 (C12)
10	22:06	35 07:00 (C8)	21:19	44 07:07 (C8)	20:03	18:43	36 08:52 (C10)	16:27	33 09:01 (C11)	15:41	19 09:33 (C12)
11	04:35	06:25 (C8)	05:25	06:24 (C8)	06:27	07:27	08:16 (C10)	07:33	08:29 (C11)	08:32	09:15 (C12)
12	22:06	36 07:01 (C8)	21:17	42 07:06 (C8)	20:01	18:40	35 08:51 (C10)	16:25	32 09:01 (C11)	15:41	19 09:34 (C12)
13	04:36	06:25 (C8)	05:27	06:25 (C8)	06:29	07:29	08:17 (C10)	07:35	08:29 (C11)	08:34	09:15 (C12)
14	22:05	37 07:02 (C8)	21:15	41 07:06 (C8)	19:58	18:38	32 08:49 (C10)	16:23	31 09:00 (C11)	15:40	18 09:33 (C12)
15	04:37	06:25 (C8)	05:29	06:26 (C8)	06:31	07:31	08:19 (C10)	07:38	08:29 (C11)	08:35	09:17 (C12)
16	22:04	37 07:02 (C8)	21:13	39 07:05 (C8)	19:55	18:35	28 08:47 (C10)	16:21	31 09:00 (C11)	15:40	16 09:33 (C12)
17	04:38	06:24 (C8)	05:31	06:27 (C8)	06:33	07:33	08:20 (C10)	07:40	08:31 (C11)	08:36	09:17 (C12)
18	22:03	39 07:03 (C8)	21:11	37 07:04 (C8)	19:53	18:32	25 08:45 (C10)	16:19	29 09:00 (C11)	15:39	16 09:33 (C12)
19	04:39	06:24 (C8)	05:33	06:27 (C8)	06:35	07:36	08:23 (C10)	07:42	08:31 (C11)	08:38	09:19 (C12)
20	22:02	39 07:03 (C8)	21:08	35 07:02 (C8)	19:50	18:30	20 08:43 (C10)	16:17	28 08:59 (C11)	15:39	14 09:33 (C12)
21	04:41	06:24 (C8)	05:35	06:28 (C8)	06:37	07:38	08:27 (C10)	07:44	08:32 (C11)	08:39	09:20 (C12)
22	22:01	39 07:03 (C8)	21:06	33 07:01 (C8)	19:47	18:27	11 08:38 (C10)	16:15	27 08:59 (C11)	15:38	13 09:33 (C12)
23	04:42	06:23 (C8)	05:37	06:29 (C8)	06:39	07:40		07:46	08:33 (C11)	08:40	09:21 (C12)
24	22:00	41 07:04 (C8)	21:04	31 07:00 (C8)	19:45	18:24		16:13	25 08:58 (C11)	15:38	12 09:33 (C12)
25	04:43	06:24 (C8)	05:39	06:31 (C8)	06:41	07:42		07:48	08:35 (C11)	08:41	09:23 (C12)
26	21:59	41 07:05 (C8)	21:01	27 06:58 (C8)	19:42	18:22		16:11	30 09:21 (C12)	15:38	10 09:33 (C12)
27	04:45	06:23 (C8)	05:41	06:33 (C8)	06:43	08:38 (C10)	07:44	07:51	08:36 (C11)	08:42	09:24 (C12)
28	21:58	42 07:05 (C8)	20:59	23 06:56 (C8)	19:39	6 08:44 (C10)	18:19	16:09	32 09:23 (C12)	15:38	9 09:33 (C12)
29	04:46	06:23 (C8)	05:43	06:35 (C8)	06:45	08:32 (C10)	07:46	07:53	08:37 (C11)	08:43	09:25 (C12)
30	21:56	42 07:05 (C8)	20:57	18 06:53 (C8)	19:37	17 08:49 (C10)	18:17	16:07	32 09:25 (C12)	15:38	8 09:33 (C12)
31	04:48	06:23 (C8)	05:45	06:39 (C8)	06:47	08:29 (C10)	07:48	07:55	08:40 (C11)	08:44	09:26 (C12)
32	21:55	43 07:06 (C8)	20:54	10 06:49 (C8)	19:34	23 08:52 (C10)	18:14	16:06	31 09:27 (C12)	15:38	7 09:33 (C12)
33	04:49	06:23 (C8)	05:47		06:49	08:26 (C10)	07:50	07:57	08:43 (C11)	08:45	09:27 (C12)
34	21:54	43 07:06 (C8)	20:52	19:31	28 08:54 (C10)	18:12		16:04	27 09:28 (C12)	15:38	6 09:33 (C12)
35	04:51	06:23 (C8)	05:49	06:51		08:23 (C10)	07:52	07:59	09:07 (C12)	08:46	09:28 (C12)
36	21:52	44 07:07 (C8)	20:49	19:28	31 08:54 (C10)	18:09		16:02	21 09:28 (C12)	15:38	5 09:33 (C12)
37	04:52	06:23 (C8)	05:51	06:53		08:22 (C10)	07:54	08:01	09:08 (C12)	08:47	09:28 (C12)
38	21:51	44 07:07 (C8)	20:47	19:26	33 08:55 (C10)	18:07		16:01	22 09:30 (C12)	15:38	4 09:32 (C12)
39	04:54	06:23 (C8)	05:53	06:55		08:20 (C10)	07:56	08:03	09:07 (C12)	08:48	09:29 (C12)
40	21:49	45 07:08 (C8)	20:44	19:23	36 08:56 (C10)	18:04		15:59	23 09:30 (C12)	15:38	4 09:33 (C12)
41	04:56	06:22 (C8)	05:55	06:57		08:19 (C10)	07:59	08:05	09:07 (C12)	08:48	09:29 (C12)
42	21:48	46 07:08 (C8)	20:42	19:20	38 08:57 (C10)	18:02		15:57	23 09:30 (C12)	15:39	4 09:33 (C12)
43	04:57	06:23 (C8)	05:57	06:59		08:18 (C10)	08:01	08:07	09:07 (C12)	08:49	09:30 (C12)
44	21:46	46 07:09 (C8)	20:39	19:18	39 08:57 (C10)	17:59		15:56	24 09:31 (C12)	15:39	3 09:33 (C12)
45	04:59	06:22 (C8)	05:59	07:01		08:17 (C10)	08:03	08:09	09:08 (C12)	08:49	09:30 (C12)
46	21:44	46 07:08 (C8)	20:37	19:15	41 08:58 (C10)	17:57	7 09:49 (C11)	15:55	24 09:32 (C12)	15:40	4 09:34 (C12)
47	05:01	06:22 (C8)	06:01	07:03		08:16 (C10)	08:05	08:11	09:08 (C12)	08:50	09:31 (C12)
48	21:43	47 07:09 (C8)	20:34	19:12	42 08:58 (C10)	17:54	15 09:53 (C11)	15:53	24 09:32 (C12)	15:40	4 09:35 (C12)
49	05:03	06:22 (C8)	06:03	07:05		08:16 (C10)	07:07	08:35 (C11)	08:13	08:50	09:31 (C12)
50	21:41	46 07:08 (C8)	20:32	19:10	42 08:58 (C10)	16:52	20 08:55 (C11)	15:52	24 09:32 (C12)	15:41	5 09:36 (C12)
51	05:04	06:22 (C8)	06:05	07:07		08:15 (C10)	07:09	08:34 (C11)	08:15	08:50	09:31 (C12)
52	21:39	47 07:09 (C8)	20:29	19:07	43 08:58 (C10)	16:50	23 08:57 (C11)	15:51	24 09:32 (C12)	15:42	5 09:36 (C12)
53	05:06	06:22 (C8)	06:07	07:09		08:14 (C10)	07:12	08:32 (C11)	08:17	08:51	09:31 (C12)
54	21:37	47 07:09 (C8)	20:27	19:04	44 08:58 (C10)	16:47	26 08:58 (C11)	15:49	24 09:32 (C12)	15:43	6 09:37 (C12)
55	05:08	06:22 (C8)	06:09	07:11		08:14 (C10)	07:14	08:31 (C11)	08:19	08:51	09:31 (C12)
56	21:35	47 07:09 (C8)	20:24	19:01	43 08:57 (C10)	16:45	27 08:58 (C11)	15:48	23 09:32 (C12)	15:44	7 09:38 (C12)
57	05:10	06:22 (C8)	06:11	07:13		08:14 (C10)	07:16	08:31 (C11)	08:20	08:51	09:31 (C12)
58	21:34	47 07:09 (C8)	20:22	18:59	43 08:57 (C10)	16:43	29 09:00 (C11)	15:47	23 09:33 (C12)	15:44	9 09:40 (C12)
59	05:12	06:22 (C8)	06:13	07:15		08:15 (C10)	07:18	08:30 (C11)	08:22	08:51	09:31 (C12)
60	21:32	47 07:09 (C8)	20:19	18:56	42 08:57 (C10)	16:40	30 09:00 (C11)	15:46	23 09:34 (C12)	15:45	10 09:41 (C12)
61	05:14	06:22 (C8)	06:15			07:20		08:29 (C11)		08:51	09:30 (C12)
62	21:30	46 07:08 (C8)	20:16			16:38	31 09:00 (C11)			15:47	11 09:41 (C12)
Potential sun hours	529		469		385		324		247		216
Total, worst case	1294		560		591		555		819		334
Sun reduction	0.49		0.50		0.43		0.26		0.08		0.07
Oper. time red.	0.94		0.94		0.94		0.94		0.94		0.94
Wind dir. red.	0.66		0.66		0.62		0.61		0.60		0.60
Total reduction	0.30		0.30		0.25		0.15		0.05		0.04
Total, real	387		169		146		81		37		13

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

January			February			March			April			May			June		
1	08:51	09:52 (C14)	08:15	08:50 (C15)	07:11	06:49			05:33	04:36							
	15:48	13	10:05 (C14)	16:45	64	10:29 (C14)	17:48	19:53		20:55	21:53						
2	08:50	09:52 (C14)	08:13	08:50 (C15)	07:08	06:46			05:30	04:35							
	15:49	15	10:07 (C14)	16:48	65	10:29 (C14)	17:50	19:55		20:57	21:54						
3	08:50	09:51 (C14)	08:11	08:50 (C15)	07:06	06:43		07:24 (C13)	05:28	04:34							
	15:51	17	10:08 (C14)	16:50	65	10:29 (C14)	17:52	19:57	6	07:30 (C13)	21:00	21:55					
4	08:50	09:50 (C14)	08:09	08:50 (C15)	07:03	06:41		07:18 (C13)	05:26	04:33							
	15:52	19	10:09 (C14)	16:52	64	10:29 (C14)	17:54	19:59	16	07:34 (C13)	21:02	21:57					
5	08:49	09:50 (C14)	08:07	08:50 (C15)	07:01	06:38		07:14 (C13)	05:23	04:32							
	15:53	21	10:11 (C14)	16:54	63	10:28 (C14)	17:56	20:01	22	07:36 (C13)	21:04	21:58					
6	08:49	09:50 (C14)	08:05	08:50 (C15)	06:58	06:35		07:13 (C13)	05:21	04:31							
	15:55	22	10:12 (C14)	16:56	61	10:27 (C14)	17:58	20:03	26	07:39 (C13)	21:06	21:59					
7	08:48	09:49 (C14)	08:03	08:50 (C15)	06:55	06:33		07:10 (C13)	05:19	04:30							
	15:56	24	10:13 (C14)	16:59	59	10:26 (C14)	18:01	20:05	29	07:39 (C13)	21:08	22:00					
8	08:48	09:49 (C14)	08:01	08:51 (C15)	06:53	06:30		07:09 (C13)	05:17	04:29							
	15:58	26	10:15 (C14)	17:01	56	10:26 (C14)	18:03	20:08	32	07:41 (C13)	21:10	22:01					
9	08:47	09:48 (C14)	07:58	08:51 (C15)	06:50	06:28		07:08 (C13)	05:15	04:29							
	16:00	28	10:16 (C14)	17:03	53	10:24 (C14)	18:05	20:10	33	07:41 (C13)	21:12	22:02					
10	08:46	09:48 (C14)	07:56	08:52 (C15)	06:47	06:25		07:06 (C13)	05:13	04:28							
	16:01	29	10:17 (C14)	17:05	49	10:23 (C14)	18:07	20:12	35	07:41 (C13)	21:14	22:03					
11	08:45	09:48 (C14)	07:54	08:54 (C15)	06:45	06:22		07:06 (C13)	05:11	04:27							
	16:03	30	10:18 (C14)	17:08	41	10:21 (C14)	18:09	20:14	36	07:42 (C13)	21:16	22:04					
12	08:44	09:47 (C14)	07:52	08:54 (C15)	06:42	06:20		07:04 (C13)	05:09	04:27							
	16:05	31	10:18 (C14)	17:10	34	10:18 (C14)	18:11	20:16	38	07:42 (C13)	21:18	22:05					
13	08:43	09:47 (C14)	07:50	08:56 (C15)	06:40	06:17		07:04 (C13)	05:07	04:26							
	16:06	33	10:20 (C14)	17:12	21	10:13 (C14)	18:13	20:18	39	07:43 (C13)	21:20	22:06					
14	08:42	09:47 (C14)	07:47	08:59 (C15)	06:37	06:15		07:03 (C13)	05:05	04:26							
	16:08	34	10:21 (C14)	17:14	7	09:06 (C15)	18:15	20:20	39	07:42 (C13)	21:22	22:07					
15	08:41	09:46 (C14)	07:45	06:34	06:12			07:03 (C13)	05:03	04:26							
	16:10	35	10:21 (C14)	17:17		18:18	20:22	40	07:43 (C13)	21:24	22:07						
16	08:40	09:47 (C14)	07:43	06:32	06:09			07:02 (C13)	05:01	04:26							
	16:12	36	10:23 (C14)	17:19		18:20	20:24	40	07:42 (C13)	21:25	22:08						
17	08:39	09:46 (C14)	07:40	06:29	06:07			07:03 (C13)	04:59	04:25							
	16:14	37	10:23 (C14)	17:21		18:22	20:26	39	07:42 (C13)	21:27	22:08						
18	08:37	09:46 (C14)	07:38	06:26	06:04			07:02 (C13)	04:57	04:25							
	16:16	38	10:24 (C14)	17:23		18:24	20:28	39	07:41 (C13)	21:29	22:09						
19	08:36	09:46 (C14)	07:36	06:24	06:02			07:03 (C13)	04:55	04:25							
	16:18	39	10:25 (C14)	17:26		18:26	20:30	38	07:41 (C13)	21:31	22:09						
20	08:35	09:47 (C14)	07:33	06:21	05:59			07:02 (C13)	04:53	04:25							
	16:20	39	10:26 (C14)	17:28		18:28	20:33	38	07:40 (C13)	21:33	22:10						
21	08:33	09:46 (C14)	07:31	06:18	05:57			07:03 (C13)	04:52	04:25							
	16:22	40	10:26 (C14)	17:30		18:30	20:35	36	07:39 (C13)	21:35	22:10						
22	08:32	09:46 (C14)	07:28	06:16	05:54			07:03 (C13)	04:50	04:26							
	16:24	41	10:27 (C14)	17:32		18:32	20:37	36	07:39 (C13)	21:37	22:10						
23	08:30	09:46 (C14)	07:26	06:13	05:52			07:03 (C13)	04:48	04:26							
	16:26	41	10:27 (C14)	17:34		18:34	20:39	34	07:37 (C13)	21:38	22:10						
24	08:29	09:47 (C14)	07:23	06:10	05:49			07:04 (C13)	04:47	04:26							
	16:28	42	10:29 (C14)	17:37		18:36	20:41	32	07:36 (C13)	21:40	22:10						
25	08:27	09:47 (C14)	07:21	06:08	05:47			07:05 (C13)	04:45	04:26							
	16:30	42	10:29 (C14)	17:39		18:38	20:43	30	07:35 (C13)	21:42	22:10						
26	08:26	08:58 (C15)	07:18	06:05	05:44			07:06 (C13)	04:44	04:27							
	16:32	50	10:29 (C14)	17:41		18:41	20:45	27	07:33 (C13)	21:43	22:10						
27	08:24	08:56 (C15)	07:16	06:02	05:42			07:07 (C13)	04:42	04:27							
	16:34	54	10:29 (C14)	17:43		18:43	20:47	25	07:32 (C13)	21:45	22:10						
28	08:22	08:54 (C15)	07:13	05:59	05:40			07:09 (C13)	04:41	04:28							
	16:37	59	10:30 (C14)	17:45		18:45	20:49	21	07:30 (C13)	21:47	22:10						
29	08:20	08:52 (C15)		06:57	05:37			07:12 (C13)	04:40	04:29							
	16:39	62	10:30 (C14)			19:47	20:51	15	07:27 (C13)	21:48	22:10						
30	08:18	08:52 (C15)		06:54	05:35			07:15 (C13)	04:38	04:29							
	16:41	62	10:30 (C14)			19:49	20:53	7	07:22 (C13)	21:50	22:09						
31	08:17	08:51 (C15)		06:51					04:37								
	16:43	64	10:30 (C14)			19:51			21:51								
Potential sun hours	235		266			366		426		508		529					
Total, worst case	1123		702					848									
Sun reduction	0.13		0.20					0.50									
Oper. time red.	0.94		0.94					0.94									
Wind dir. red.	0.61		0.60					0.66									
Total reduction	0.07		0.11					0.30									
Total, real	84		78					256									

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:05 (C13) 18:54	07:17 16:36	08:22 (C15) 15:45
2	04:31 22:08	05:18 21:26	06:19 20:11	07:05 (C13) 18:51	07:19 16:34	08:21 (C15) 15:44
3	04:32 22:08	05:20 21:24	06:21 20:09	07:06 (C13) 18:48	07:21 16:32	08:21 (C15) 15:43
4	04:33 22:07	05:21 21:22	06:23 20:06	07:06 (C13) 18:46	07:23 16:29	08:20 (C15) 15:42
5	04:34 22:07	05:23 21:20	06:25 20:03	07:07 (C13) 18:43	07:25 16:27	08:19 (C15) 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:08 (C13) 18:40	07:27 16:25	08:20 (C15) 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:09 (C13) 18:38	07:30 16:23	08:20 (C15) 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:12 (C13) 18:35	07:32 16:21	08:21 (C15) 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:16 (C13) 18:32	07:34 16:19	08:21 (C15) 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:24 (C13) 18:30	07:36 16:17	08:21 (C15) 15:39
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:22 (C15) 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:23 (C15) 15:38
13	04:43 21:59	05:39 21:02	07:22 (C13) 19:42	07:42 18:22	07:49 16:11	08:24 (C15) 15:38
14	04:45 21:58	05:41 20:59	07:18 (C13) 19:39	07:44 18:20	07:51 16:09	08:26 (C15) 15:38
15	04:46 21:57	05:43 20:57	07:16 (C13) 19:37	07:46 18:17	07:53 16:08	08:28 (C15) 15:38
16	04:48 21:55	05:45 20:54	07:14 (C13) 19:34	07:48 18:14	07:55 16:06	08:31 (C15) 15:38
17	04:49 21:54	05:47 20:52	07:13 (C13) 19:31	07:50 18:12	07:57 16:04	09:20 (C14) 15:38
18	04:51 21:52	05:49 20:50	07:11 (C13) 19:29	07:52 18:09	07:59 16:02	09:21 (C14) 15:38
19	04:53 21:51	05:51 20:47	07:10 (C13) 19:26	07:55 18:07	08:01 16:01	09:21 (C14) 15:38
20	04:54 21:49	05:53 20:45	07:09 (C13) 19:23	07:57 18:04	08:03 15:59	09:21 (C14) 15:39
21	04:56 21:48	05:55 20:42	07:08 (C13) 19:21	07:59 18:02	08:05 15:58	09:21 (C14) 15:39
22	04:58 21:46	05:57 20:40	07:07 (C13) 19:18	08:01 18:00	08:07 15:56	09:23 (C14) 15:40
23	04:59 21:45	05:59 20:37	07:07 (C13) 19:15	08:03 17:57	08:09 15:55	09:23 (C14) 15:40
24	05:01 21:43	06:01 20:35	07:06 (C13) 19:12	08:05 17:55	08:11 15:53	09:23 (C14) 15:41
25	05:03 21:41	06:03 20:32	07:06 (C13) 19:10	08:07 17:52	08:13 15:52	09:24 (C14) 15:41
26	05:05 21:39	06:05 20:30	07:05 (C13) 19:07	08:10 17:50	08:15 15:51	09:25 (C14) 15:42
27	05:06 21:38	06:07 20:27	07:04 (C13) 19:04	08:12 17:48	08:17 15:49	09:26 (C14) 15:43
28	05:08 21:36	06:09 20:24	07:04 (C13) 19:02	08:14 17:46	08:19 15:48	09:27 (C14) 15:44
29	05:10 21:34	06:11 20:22	07:04 (C13) 18:59	08:16 17:43	08:21 15:47	09:28 (C14) 15:45
30	05:12 21:32	06:13 20:19	07:04 (C13) 18:56	08:18 17:41	08:23 (C15) 15:46	09:29 (C14) 15:46
31	05:14 21:30	06:15 20:17	07:04 (C13) 18:54	08:22 (C15) 17:40	08:25 (C15) 15:45	10:01 (C14) 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		620	239	114	1476	297
Sun reduction		0.50	0.43	0.26	0.08	0.07
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.66	0.66	0.60	0.61	0.61
Total reduction		0.30	0.26	0.14	0.05	0.04
Total, real		186	62	16	68	12

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April		May		June		
1	08:51	08:15	07:11		07:40 (C14)	06:49		05:33	06:14 (C13)	04:36	
	15:48	16:45	17:48	8	07:48 (C14)	19:53		20:55	22	06:36 (C13)	21:53
2	08:50	08:13	07:08		07:36 (C14)	06:46		05:30		06:15 (C13)	04:35
	15:50	16:48	17:50	15	07:51 (C14)	19:55		20:58	20	06:35 (C13)	21:54
3	08:50	08:11	07:06		07:34 (C14)	06:43		05:28		06:16 (C13)	04:34
	15:51	16:50	17:52	20	07:54 (C14)	19:57		21:00	18	06:34 (C13)	21:55
4	08:50	08:09	07:03		07:31 (C14)	06:41		05:26		06:17 (C13)	04:33
	15:52	16:52	17:54	24	07:55 (C14)	19:59		21:02	16	06:33 (C13)	21:57
5	08:49	08:07	07:01		07:30 (C14)	06:38		05:24		06:19 (C13)	04:32
	15:54	16:54	17:56	26	07:56 (C14)	20:01		21:04	12	06:31 (C13)	21:58
6	08:49	08:05	06:58		07:29 (C14)	06:36		05:21		06:21 (C13)	04:31
	15:55	16:56	17:58	28	07:57 (C14)	20:03		21:06	8	06:29 (C13)	21:59
7	08:48	08:03	06:55		07:28 (C14)	06:33		05:19			04:30
	15:56	16:59	18:01	29	07:57 (C14)	20:06		21:08			22:00
8	08:48	08:01	06:53		07:26 (C14)	06:30		05:17			04:29
	15:58	17:01	18:03	31	07:57 (C14)	20:08		21:10			22:01
9	08:47	07:58	06:50		07:26 (C14)	06:28		05:15		04:29	
	16:00	17:03	18:05	32	07:58 (C14)	20:10		21:12		22:02	
10	08:46	07:56	06:48		07:26 (C14)	06:25		05:13		04:28	
	16:01	17:05	18:07	32	07:58 (C14)	20:12		21:14		22:03	
11	08:45	07:54	06:45		07:25 (C14)	06:22		05:11		04:27	
	16:03	17:08	18:09	33	07:58 (C14)	20:14		21:16		22:04	
12	08:44	07:52	06:42		07:25 (C14)	06:20		05:09		04:27	
	16:05	17:10	18:11	33	07:58 (C14)	20:16		21:18		22:05	
13	08:43	07:50	06:40		07:25 (C14)	06:17		05:07		04:27	
	16:06	17:12	18:13	32	07:57 (C14)	20:18		21:20		22:06	
14	08:42	07:47	06:37		07:25 (C14)	06:15		05:05		04:26	
	16:08	17:14	18:15	31	07:56 (C14)	20:20		21:22		22:07	
15	08:41	07:45	06:34		07:26 (C14)	06:12		05:03		04:26	
	16:10	17:17	18:18	30	07:56 (C14)	20:22		21:24		22:07	
16	08:40	07:43	06:32		07:26 (C14)	06:09		05:01		04:26	
	16:12	17:19	18:20	29	07:55 (C14)	20:24		21:25		22:08	
17	08:39	07:40	06:29		07:26 (C14)	06:07		04:59		04:25	
	16:14	17:21	18:22	27	07:53 (C14)	20:26		21:27		22:08	
18	08:38	07:38	06:26		07:27 (C14)	06:04		04:57		04:25	
	16:16	17:23	18:24	24	07:51 (C14)	20:28		21:29		22:09	
19	08:36	07:36	06:24		07:29 (C14)	06:02	06:28 (C13)	04:55		04:25	
	16:18	17:26	18:26	21	07:50 (C14)	20:31	5	06:33 (C13)		22:09	
20	08:35	07:33	06:21		07:31 (C14)	05:59	06:26 (C13)	04:53		04:25	
	16:20	17:28	18:28	16	07:47 (C14)	20:33	9	06:35 (C13)		22:10	
21	08:33	07:31	06:18		07:34 (C14)	05:57	06:23 (C13)	04:52		04:25	
	16:22	17:30	18:30	8	07:42 (C14)	20:35	13	06:36 (C13)		22:10	
22	08:32	07:28	06:16			05:54	06:21 (C13)	04:50		04:26	
	16:24	17:32	18:32			20:37	06:37 (C13)	21:37		22:10	
23	08:30	07:26	06:13			05:52	06:18 (C13)	04:48		04:26	
	16:26	17:34	18:34			20:39	06:37 (C13)	21:38		22:10	
24	08:29	07:23	06:10			05:49	06:16 (C13)	04:47		04:26	
	16:28	17:37	18:36			20:41	06:38 (C13)	21:40		22:10	
25	08:27	07:21	06:08			05:47	06:15 (C13)	04:45		04:27	
	16:30	17:39	18:39			20:43	06:38 (C13)	21:42		22:10	
26	08:26	07:18	06:05			05:44	06:14 (C13)	04:44		04:27	
	16:32	17:41	18:41			20:45	06:38 (C13)	21:43		22:10	
27	08:24	07:16	06:02			05:42	06:14 (C13)	04:42		04:27	
	16:34	17:43	18:43			20:47	06:38 (C13)	21:45		22:10	
28	08:22	07:13	06:00			05:40	06:14 (C13)	04:41		04:28	
	16:37	17:45	18:45			20:49	06:38 (C13)	21:47		22:10	
29	08:20		06:57			05:37	06:14 (C13)	04:40		04:29	
	16:39		19:47			20:51	06:38 (C13)	21:48		22:10	
30	08:19		06:54			05:35	06:15 (C13)	04:38		04:29	
	16:41		19:49			20:53	06:37 (C13)	21:50		22:09	
31	08:17		06:51					04:37			
	16:43		19:51					21:51			
Potential sun hours	235	266	366		426		508			529	
Total, worst case			529		225		96				
Sun reduction			0.41		0.50		0.57				
Oper. time red.			0.94		0.94		0.94				
Wind dir. red.			0.62		0.65		0.65				
Total reduction			0.24		0.31		0.35				
Total, real			127		69		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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	08:05 (C14)	07:23
	22:09	21:28	20:14	18:54	32 08:37 (C14)	16:36
2	04:31	05:18	06:19	07:19	08:04 (C14)	07:25
	22:09	21:26	20:11	18:51	33 08:37 (C14)	16:34
3	04:32	05:20	06:21	07:21	08:04 (C14)	07:27
	22:08	21:24	20:09	18:48	32 08:36 (C14)	16:32
4	04:33	05:22	06:23	07:23	08:03 (C14)	07:29
	22:07	21:22	20:06	18:46	33 08:36 (C14)	16:30
5	04:34	05:23	06:25	07:25	08:03 (C14)	07:31
	22:07	21:20	20:03	18:43	32 08:35 (C14)	16:27
6	04:35	05:25	06:27	07:28	08:03 (C14)	07:33
	22:06	21:17	20:01	18:40	31 08:34 (C14)	16:25
7	04:36	05:27	06:29 (C13)	07:30	08:04 (C14)	07:36
	22:05	21:15	10 06:39 (C13)	18:38	29 08:33 (C14)	16:23
8	04:37	05:29	06:27 (C13)	07:32	08:04 (C14)	07:38
	22:04	21:13	14 06:41 (C13)	18:35	27 08:31 (C14)	16:21
9	04:38	05:31	06:26 (C13)	07:34	08:06 (C14)	07:40
	22:03	21:11	17 06:43 (C13)	18:33	25 08:31 (C14)	16:19
10	04:40	05:33	06:25 (C13)	07:36	08:07 (C14)	07:42
	22:02	21:08	19 06:44 (C13)	18:30	22 08:29 (C14)	16:17
11	04:41	05:35	06:24 (C13)	07:38	08:08 (C14)	07:44
	22:01	21:06	21 06:45 (C13)	18:27	19 08:27 (C14)	16:15
12	04:42	05:37	06:23 (C13)	07:40	08:11 (C14)	07:46
	22:00	21:04	21 06:44 (C13)	18:25	13 08:24 (C14)	16:13
13	04:44	05:39	06:22 (C13)	07:42		07:49
	21:59	21:02	23 06:45 (C13)	18:22		16:11
14	04:45	05:41	06:22 (C13)	07:44		07:51
	21:58	20:59	23 06:45 (C13)	18:20		16:10
15	04:46	05:43	06:21 (C13)	07:46		07:53
	21:57	20:57	24 06:45 (C13)	18:17		16:08
16	04:48	05:45	06:21 (C13)	07:48		07:55
	21:55	20:54	24 06:45 (C13)	18:15		16:06
17	04:49	05:47	06:21 (C13)	07:50		07:57
	21:54	20:52	24 06:45 (C13)	18:12		16:04
18	04:51	05:49	06:22 (C13)	07:52		07:59
	21:52	20:50	23 06:45 (C13)	18:09		16:03
19	04:53	05:51	06:22 (C13)	07:55		08:01
	21:51	20:47	21 06:43 (C13)	18:07		16:01
20	04:54	05:53	06:24 (C13)	07:57		08:03
	21:49	20:45	19 06:43 (C13)	18:04		15:59
21	04:56	05:55	06:26 (C13)	07:59		08:05
	21:48	20:42	16 06:42 (C13)	18:02		15:58
22	04:58	05:57	06:28 (C13)	08:01	08:22 (C14)	08:07
	21:46	20:40	12 06:40 (C13)	18:00	08:26 (C14)	15:56
23	04:59	05:59	06:30 (C13)	08:03	08:16 (C14)	08:09
	21:45	20:37	9 06:39 (C13)	17:57	08:31 (C14)	15:55
24	05:01	06:01	06:32 (C13)	08:05	08:13 (C14)	08:11
	21:43	20:35	4 06:36 (C13)	17:55	08:33 (C14)	15:53
25	05:03	06:03		08:11 (C14)	07:07	08:13
	21:41	20:32		17:52	08:34 (C14)	15:52
26	05:05	06:05		08:10 (C14)	07:10	08:15
	21:39	20:30		16:50	08:35 (C14)	15:51
27	05:06	06:07		07:12	08:08 (C14)	08:17
	21:38	20:27		16:48	08:36 (C14)	15:50
28	05:08	06:09		07:14	08:07 (C14)	08:19
	21:36	20:24		16:45	08:37 (C14)	15:48
29	05:10	06:11		07:16	08:06 (C14)	08:21
	21:34	20:22		16:43	08:37 (C14)	15:47
30	05:12	06:13		07:18	08:05 (C14)	08:22
	21:32	20:19		16:41	08:37 (C14)	15:46
31	05:14	06:15		07:20		08:51
	21:30	20:17		16:38		15:47
Potential sun hours	529	469	385	324		216
Total, worst case			208		328	
Sun reduction		324	0.50		0.26	
Oper. time red.		0.94	0.94		0.94	
Wind dir. red.		0.65	0.62		0.62	
Total reduction		0.31	0.25		0.15	
Total, real		99	52	50		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:37 (C14)	06:49	05:33
	15:48	16:45	17:48	23 08:00 (C14)	19:53	20:55
2	08:50	08:13	07:08	07:35 (C14)	06:46	05:30
	15:50	16:48	17:50	25 08:00 (C14)	19:55	20:58
3	08:50	08:11	07:06	07:35 (C14)	06:44	05:28
	15:51	16:50	17:52	26 08:01 (C14)	19:57	21:00
4	08:50	08:09	07:03	07:34 (C14)	06:41	05:26
	15:52	16:52	17:54	27 08:01 (C14)	19:59	21:02
5	08:49	08:07	07:01	07:33 (C14)	06:38	05:24
	15:54	16:54	17:56	28 08:01 (C14)	20:01	21:04
6	08:49	08:05	06:58	07:33 (C14)	06:36	05:21
	15:55	16:57	17:58	29 08:02 (C14)	20:03	21:06
7	08:48	08:03	06:55	07:33 (C14)	06:33	05:19
	15:56	16:59	18:01	28 08:01 (C14)	20:06	21:08
8	08:48	08:01	06:53	07:33 (C14)	06:30	05:17
	15:58	17:01	18:03	27 08:00 (C14)	20:08	21:10
9	08:47	07:58	06:50	07:33 (C14)	06:28	05:15
	16:00	17:03	18:05	27 08:00 (C14)	20:10	21:12
10	08:46	07:56	06:48	07:33 (C14)	06:25	05:13
	16:01	17:05	18:07	26 07:59 (C14)	20:12	21:14
11	08:45	07:54	06:45	07:34 (C14)	06:22	05:11
	16:03	17:08	18:09	24 07:58 (C14)	20:14	21:16
12	08:44	07:52	06:42	07:35 (C14)	06:20	06:45 (C13)
	16:05	17:10	18:11	22 07:57 (C14)	20:16	06:50 (C13)
13	08:43	07:50	06:40	07:36 (C14)	06:17	06:43 (C13)
	16:06	17:12	18:13	19 07:55 (C14)	20:18	06:52 (C13)
14	08:42	07:47	06:37	07:38 (C14)	06:15	06:40 (C13)
	16:08	17:14	18:15	14 07:52 (C14)	20:20	06:52 (C13)
15	08:41	07:45	06:34	07:42 (C14)	06:12	06:38 (C13)
	16:10	17:17	18:18	6 07:48 (C14)	20:22	06:54 (C13)
16	08:40	07:43	06:32		06:09	06:35 (C13)
	16:12	17:19	18:20		20:24	06:53 (C13)
17	08:39	07:40	06:29		06:07	06:33 (C13)
	16:14	17:21	18:22		20:26	06:54 (C13)
18	08:38	07:38	06:26		06:04	06:31 (C13)
	16:16	17:23	18:24		20:28	06:53 (C13)
19	08:36	07:36	06:24		06:02	06:32 (C13)
	16:18	17:26	18:26		20:31	06:53 (C13)
20	08:35	07:33	06:21		05:59	06:32 (C13)
	16:20	17:28	18:28		20:33	06:53 (C13)
21	08:33	07:31	06:18		05:57	06:32 (C13)
	16:22	17:30	18:30		20:35	06:52 (C13)
22	08:32	07:28	06:16		05:54	06:32 (C13)
	16:24	17:32	18:32		20:37	06:52 (C13)
23	08:30	07:26	06:13		05:52	06:32 (C13)
	16:26	17:34	18:34		20:39	06:50 (C13)
24	08:29	07:23	06:10		05:49	06:34 (C13)
	16:28	17:37	18:36		20:41	06:49 (C13)
25	08:27	07:21	06:08		05:47	06:35 (C13)
	16:30	17:39	18:39		20:43	06:47 (C13)
26	08:26	07:18	07:45 (C14)	06:05	05:44	06:37 (C13)
	16:32	17:41	10 07:55 (C14)	18:41	20:45	6 06:43 (C13)
27	08:24	07:16	07:42 (C14)	06:02	05:42	
	16:34	17:43	15 07:57 (C14)	18:43	20:47	
28	08:22	07:13	07:40 (C14)	06:00	05:40	
	16:37	17:45	19 07:59 (C14)	18:45	20:49	
29	08:20			06:57	05:37	
	16:39			19:47	20:51	
30	08:19			06:54	05:35	
	16:41			19:49	20:53	
31	08:17			06:52		
	16:43			19:51		
Potential sun hours	235	266	366	426	508	529
Total, worst case			351		236	
Sun reduction		0.20	0.41		0.50	
Oper. time red.		0.94	0.94		0.94	
Wind dir. red.		0.62	0.62		0.65	
Total reduction		0.12	0.24		0.31	
Total, real		5	85		72	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	08:15 (C14) 16:36	07:23 15:45
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	08:13 (C14) 16:34	07:25 15:44
3	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	08:12 (C14) 16:32	07:27 15:43
4	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	08:11 (C14) 16:30	07:29 15:43
5	04:34 22:07	05:24 21:20	06:25 20:04	07:25 18:43	08:10 (C14) 16:27	07:31 15:42
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:09 (C14) 16:25	07:33 15:41
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:09 (C14) 16:23	07:36 15:40
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:08 (C14) 16:21	07:38 15:40
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:09 (C14) 16:19	07:40 15:39
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:09 (C14) 16:17	07:42 15:39
11	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	08:09 (C14) 16:15	07:44 15:39
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:10 (C14) 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 (C14) 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 (C14) 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 (C14) 16:08	07:53 15:38
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:18 (C14) 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 (C14) 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 15:38
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07		08:01 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04		08:03 15:39
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02		08:05 15:39
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00		08:07 15:40
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57		08:09 15:40
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55		08:11 15:41
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52		08:13 15:41
26	05:05 21:39	06:05 20:30	07:07 19:07	08:10 17:50		08:15 15:42
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48		08:17 15:43
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 17:46		08:19 15:44
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:44		08:21 15:45
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:42		08:23 15:46
31	05:14 21:30	06:15 20:17	07:17 18:54	08:20 (C14) 17:40		08:25 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		239	29		369	
Sun reduction		0.50	0.43		0.26	
Oper. time red.		0.94	0.94		0.94	
Wind dir. red.		0.65	0.62		0.62	
Total reduction		0.31	0.25		0.15	
Total, real		73	7		56	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	25	07:57 (C14) 08:22 (C14)	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50		06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11		07:19 18:51	25	07:57 (C14) 08:22 (C14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	4	07:32 (C14) 07:36 (C14)	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	25	07:56 (C14) 08:21 (C14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	10	07:29 (C14) 07:39 (C14)	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	25	07:56 (C14) 08:21 (C14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	14	07:26 (C14) 07:40 (C14)	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	24	07:56 (C14) 08:20 (C14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	18	07:24 (C14) 07:42 (C14)	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	23	07:56 (C14) 08:19 (C14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	22	07:21 (C14) 07:43 (C14)	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	20	07:58 (C14) 08:18 (C14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	24	07:19 (C14) 07:43 (C14)	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	16	08:00 (C14) 08:16 (C14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	25	07:19 (C14) 07:44 (C14)	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	12	08:03 (C14) 08:15 (C14)	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	25	07:18 (C14) 07:43 (C14)	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	8	08:05 (C14) 08:13 (C14)	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	26	07:17 (C14) 07:43 (C14)	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27			07:44 16:15	08:39 15:39
12	08:44 16:04	07:52 17:10	06:42 18:11	25	07:18 (C14) 07:43 (C14)	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25			07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	24	07:18 (C14) 07:42 (C14)	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22			07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	23	07:18 (C14) 07:41 (C14)	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	22	07:19 (C14) 07:41 (C14)	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	19	07:20 (C14) 07:39 (C14)	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	16	07:21 (C14) 07:37 (C14)	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	10	07:24 (C14) 07:34 (C14)	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:09			07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26		06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26		07:55 18:07			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28		05:59 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23		07:57 18:04			08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30		05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21		07:59 18:02			08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32		05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18		08:01 18:00			08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34		05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15		08:03 17:57			08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12		08:05 17:55			08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	8	08:08 (C14) 08:16 (C14)			07:07 16:52	08:13 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	15	08:04 (C14) 08:19 (C14)			07:10 16:50	08:15 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43		05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:38	06:07 20:27	07:09 19:04	18	08:02 (C14) 08:20 (C14)			07:12 16:48	08:17 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45		05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	21	08:00 (C14) 08:21 (C14)			07:14 16:45	08:19 15:44
29	08:20 16:39		06:57 19:47		05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	23	07:59 (C14) 08:22 (C14)			07:16 16:43	08:21 15:45
30	08:19 16:41		06:54 19:49		05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	24	07:58 (C14) 08:22 (C14)			07:18 16:41	08:22 15:46
31	08:17 16:43		06:52 19:51			04:37 21:51		05:14 21:30	06:15 20:17			07:20 16:38			07:20 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	529	529	469	385		324		247	216	
Total, worst case			307							109		203				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.94							0.94		0.94				
Wind dir. red.			0.62							0.62		0.62				
Total reduction			0.24							0.25		0.15				
Total, real			74							27		31				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:42 (C14)	06:49	05:33
	15:48	16:45	17:48	27 08:09 (C14)	19:53	20:55
2	08:51	08:13	07:08	07:42 (C14)	06:46	05:30
	15:50	16:48	17:50	27 08:09 (C14)	19:55	20:58
3	08:50	08:11	07:06	07:42 (C14)	06:44	05:28
	15:51	16:50	17:52	27 08:09 (C14)	19:57	21:00
4	08:50	08:09	07:03	07:42 (C14)	06:41	05:26
	15:52	16:52	17:54	27 08:09 (C14)	19:59	21:02
5	08:49	08:07	07:01	07:41 (C14)	06:38	05:24
	15:54	16:54	17:56	27 08:08 (C14)	20:01	21:04
6	08:49	08:05	06:58	07:42 (C14)	06:36	05:21
	15:55	16:57	17:58	26 08:08 (C14)	20:03	21:06
7	08:48	08:03	06:55	07:43 (C14)	06:33	05:19
	15:56	16:59	18:01	23 08:06 (C14)	20:06	21:08
8	08:48	08:01	06:53	07:43 (C14)	06:30	05:17
	15:58	17:01	18:03	22 08:05 (C14)	20:08	21:10
9	08:47	07:58	06:50	07:45 (C14)	06:28	05:15
	16:00	17:03	18:05	19 08:04 (C14)	20:10	21:12
10	08:46	07:56	06:48	07:46 (C14)	06:25	05:13
	16:01	17:05	18:07	15 08:01 (C14)	20:12	21:14
11	08:45	07:54	06:45	07:49 (C14)	06:22	05:11
	16:03	17:08	18:09	8 07:57 (C14)	20:14	21:16
12	08:44	07:52	06:42		06:20	05:09
	16:05	17:10	18:11		20:16	21:18
13	08:43	07:50	06:40		06:17	05:07
	16:06	17:12	18:13		20:18	21:20
14	08:42	07:47	06:37		06:15	05:05
	16:08	17:14	18:15		20:20	21:22
15	08:41	07:45	06:34		06:12	05:03
	16:10	17:17	18:18		20:22	21:24
16	08:40	07:43	06:32		06:09	05:01
	16:12	17:19	18:20		20:24	21:26
17	08:39	07:40	06:29		06:07	04:59
	16:14	17:21	18:22		20:26	21:27
18	08:38	07:38	06:26		06:04	04:57
	16:16	17:23	18:24		20:28	21:29
19	08:36	07:36	06:24		06:02	04:55
	16:18	17:26	18:26		20:31	21:31
20	08:35	07:33	06:21		05:59	04:53
	16:20	17:28	18:28		20:33	21:33
21	08:33	07:31	06:18		05:57	04:52
	16:22	17:30	18:30		20:35	21:35
22	08:32	07:28	07:55 (C14)	06:16	05:54	04:50
	16:24	17:32	5 08:00 (C14)	18:32	20:37	21:37
23	08:30	07:26	07:53 (C14)	06:13	05:52	04:48
	16:26	17:34	11 08:04 (C14)	18:34	20:39	21:38
24	08:29	07:23	07:50 (C14)	06:10	05:49	04:47
	16:28	17:37	15 08:05 (C14)	18:36	20:41	21:40
25	08:27	07:21	07:48 (C14)	06:08	05:47	04:45
	16:30	17:39	19 08:07 (C14)	18:39	20:43	21:42
26	08:26	07:18	07:45 (C14)	06:05	05:44	04:44
	16:32	17:41	23 08:08 (C14)	18:41	20:45	21:43
27	08:24	07:16	07:44 (C14)	06:02	05:42	04:42
	16:34	17:43	24 08:08 (C14)	18:43	20:47	21:45
28	08:22	07:13	07:43 (C14)	06:00	05:40	04:41
	16:37	17:45	26 08:09 (C14)	18:45	20:49	21:47
29	08:20			06:57	05:37	04:40
	16:39			19:47	20:51	21:48
30	08:19			06:54	05:35	04:38
	16:41			19:49	20:53	21:50
31	08:17			06:52		04:37
	16:43			19:51		21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		123	248	225		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.63	0.63	0.66		
Total reduction		0.12	0.24	0.31		
Total, real		14	60	69		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (C13) 07:01 (C13)	07:17 18:54	07:23 16:36
2	04:31 22:09	05:18 21:26	06:19 20:11	06:49 (C13) 07:00 (C13)	07:19 18:51	07:25 16:34
3	04:32 22:08	05:20 21:24	06:21 20:09	06:51 (C13) 06:59 (C13)	07:21 18:48	07:27 16:32
4	04:33 22:07	05:22 21:22	06:23 20:06	06:53 (C13) 06:56 (C13)	07:23 18:46	07:29 16:30
5	04:34 22:07	05:24 21:20	06:25 20:04	07:25 18:43	07:25 20	08:21 (C14) 16:27
6	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	08:19 (C14) 23	07:34 16:25
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:18 (C14) 25	07:36 16:23
8	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	08:17 (C14) 26	07:38 16:21
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	08:17 (C14) 27	07:40 16:19
10	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:16 (C14) 28	07:42 16:17
11	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	08:16 (C14) 27	07:44 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:16 (C14) 27	07:46 16:13
13	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:16 (C14) 26	07:49 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:16 (C14) 25	07:51 16:10
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:17 (C14) 24	07:53 16:08
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	08:18 (C14) 22	07:55 16:06
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:20 (C14) 18	07:57 16:04
18	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:09	08:22 (C14) 14	07:59 16:03
19	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:36 (C14) 9	16:03 15:38
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:34 (C14)	08:03 15:59
21	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02		08:05 15:58
22	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00		08:07 15:56
23	04:59 21:45	05:59 20:37	07:01 (C13) 07:02 (C13)	18:00 17:57		15:50 15:55
24	05:01 21:43	06:01 20:35	07:03 (C13) 07:03 (C13)	08:03 17:55		08:09 15:53
25	05:03 21:41	06:03 20:32	07:05 (C13) 07:04 (C13)	17:55 16:52		15:51 15:52
26	05:05 21:39	06:05 20:30	07:07 (C13) 07:04 (C13)	16:52 16:50		15:51 15:51
27	05:06 21:38	06:07 20:27	07:09 (C13) 07:05 (C13)	15:51 16:48		15:42 15:50
28	05:08 21:36	06:09 20:24	07:11 (C13) 07:04 (C13)	16:48 16:45		15:43 15:48
29	05:10 21:34	06:11 20:22	07:13 (C13) 07:03 (C13)	16:45 16:43		15:44 15:47
30	05:12 21:32	06:13 20:19	07:15 (C13) 07:03 (C13)	16:43 16:41		15:45 15:46
31	05:14 21:30	06:15 20:17	07:17 (C13) 07:02 (C13)	16:41 16:38		15:46 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		191	36	370		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.66	0.66	0.63		
Total reduction		0.31	0.26	0.15		
Total, real		58	9	56		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March			April			May			June		
	1	08:51 15:48 20	09:34 (C12) 09:54 (C12) 08:13	08:15 16:45 32	09:09 (C11) 09:41 (C11) 07:08	07:11 17:47 29	07:57 (C10) 08:26 (C10) 19:53	06:49 19:53 06:46				05:32 20:55 39	06:25 (C8) 07:04 (C8) 21:52	04:36 21:52 41	06:24 (C8) 07:05 (C8) 06:24 (C8)			
	2	08:50 15:49 20	09:34 (C12) 09:54 (C12) 08:11	08:13 16:47 32	09:09 (C11) 09:41 (C11) 07:05	07:08 17:50 33	07:55 (C10) 08:28 (C10) 19:55	06:46 19:55 06:43				05:30 20:57 41	06:24 (C8) 07:05 (C8) 21:54	04:35 21:54 40	06:24 (C8) 07:04 (C8) 06:25 (C8)			
	3	08:50 15:51 21	09:34 (C12) 09:55 (C12) 08:09	08:11 16:50 33	09:09 (C11) 09:42 (C11) 07:03	07:05 17:52 35	07:54 (C10) 08:29 (C10) 19:57	06:43 19:57 06:41				05:28 20:59 43	06:23 (C8) 07:06 (C8) 21:55	04:34 21:55 39	06:25 (C8) 07:04 (C8) 06:25 (C8)			
	4	08:50 15:52 22	09:34 (C12) 09:56 (C12) 08:07	08:09 16:52 32	09:10 (C11) 09:42 (C11) 07:00	07:03 17:54 38	07:52 (C10) 08:30 (C10) 19:59	06:41 19:59 06:38				05:26 21:01 44	06:22 (C8) 07:06 (C8) 21:56	04:33 21:56 38	06:25 (C8) 07:03 (C8) 06:27 (C8)			
	5	08:49 15:53 22	09:34 (C12) 09:56 (C12) 08:05	08:07 16:54 32	09:09 (C11) 09:41 (C11) 07:00	07:00 17:56 39	07:51 (C10) 08:30 (C10) 20:01	06:38 20:01 06:35				05:23 21:03 45	06:22 (C8) 07:07 (C8) 21:58	04:32 21:58 37	06:27 (C8) 07:04 (C8) 06:27 (C8)			
	6	08:49 15:55 23	09:35 (C12) 09:58 (C12) 08:02	08:05 16:56 32	09:10 (C11) 09:42 (C11) 06:58	06:58 17:58 40	07:51 (C10) 08:31 (C10) 20:03	06:35 20:03 06:33				05:21 21:05 46	06:21 (C8) 07:07 (C8) 21:59	04:31 21:59 36	06:27 (C8) 07:03 (C8) 06:27 (C8)			
	7	08:48 15:56 23	09:35 (C12) 09:58 (C12) 08:00	08:02 16:58 32	09:10 (C11) 09:42 (C11) 06:55	06:55 18:00 42	07:49 (C10) 08:31 (C10) 20:05	06:33 20:05 06:30				05:19 21:08 47	06:21 (C8) 07:08 (C8) 22:00	04:30 22:00 36	06:27 (C8) 07:03 (C8) 06:28 (C8)			
	8	08:47 15:58 24	09:35 (C12) 09:59 (C12) 07:58	08:00 17:01 31	09:11 (C11) 09:42 (C11) 06:50	06:53 18:02 43	07:48 (C10) 08:31 (C10) 20:07	06:30 20:07 06:27				05:17 21:10 48	06:20 (C8) 07:08 (C8) 22:01	04:29 22:01 35	06:28 (C8) 07:03 (C8) 06:28 (C8)			
	9	08:47 15:59 23	09:36 (C12) 09:59 (C12) 07:56	07:58 17:03 30	09:11 (C11) 09:41 (C11) 06:47	06:50 18:05 43	07:49 (C10) 08:32 (C10) 20:09	06:27 20:09 06:25				05:15 21:12 48	06:20 (C8) 07:08 (C8) 22:02	04:28 22:02 34	06:28 (C8) 07:02 (C8) 06:29 (C8)			
	10	08:46 16:01 24	09:36 (C12) 10:00 (C12) 07:54	07:56 17:05 28	09:12 (C11) 09:40 (C11) 06:45	06:47 18:07 44	07:48 (C10) 08:32 (C10) 20:12	06:25 20:12 06:22				05:12 21:14 49	06:19 (C8) 07:08 (C8) 22:03	04:28 22:03 33	06:29 (C8) 07:02 (C8) 06:29 (C8)			
	11	08:45 16:03 25	09:36 (C12) 10:01 (C12) 07:52	07:54 17:07 26	09:13 (C11) 09:39 (C11) 06:42	06:45 18:09 44	07:47 (C10) 08:31 (C10) 20:14	06:22 20:14 06:20				05:10 21:16 49	06:19 (C8) 07:08 (C8) 22:04	04:27 22:04 33	06:29 (C8) 07:02 (C8) 06:30 (C8)			
	12	08:44 16:04 24	09:36 (C12) 10:00 (C12) 07:49	07:52 17:10 24	09:14 (C11) 09:38 (C11) 06:39	06:42 18:11 45	07:46 (C10) 08:31 (C10) 20:16	06:20 20:16 06:17				05:08 21:18 49	06:19 (C8) 07:08 (C8) 22:05	04:27 22:05 32	06:30 (C8) 07:02 (C8) 06:31 (C8)			
	13	08:43 16:06 24	09:37 (C12) 10:01 (C12) 07:47	07:49 17:12 21	09:16 (C11) 09:37 (C11) 06:37	06:39 18:13 44	07:47 (C10) 08:31 (C10) 20:18	06:17 20:18 06:14				05:06 21:19 50	06:18 (C8) 07:08 (C8) 22:06	04:26 22:06 31	06:31 (C8) 07:02 (C8) 06:31 (C8)			
	14	08:42 16:08 25	09:37 (C12) 10:02 (C12) 07:45	07:47 17:14 17	09:17 (C11) 09:34 (C11) 06:34	06:37 18:15 43	07:47 (C10) 08:30 (C10) 20:20	06:14 20:20 06:12				05:04 21:21 50	06:19 (C8) 07:09 (C8) 22:06	04:26 22:06 30	06:31 (C8) 07:01 (C8) 06:31 (C8)			
	15	08:41 16:10 24	09:37 (C12) 10:01 (C12) 07:42	07:45 17:16 11	09:21 (C11) 09:32 (C11) 06:31	06:34 18:17 43	07:46 (C10) 08:29 (C10) 20:22	06:12 20:22 06:09				05:02 21:23 50	06:19 (C8) 07:09 (C8) 22:07	04:26 22:07 30	06:31 (C8) 07:01 (C8) 06:32 (C8)			
	16	08:40 16:12 24	09:38 (C12) 10:02 (C12) 07:40	07:42 17:19 17	09:32 (C11) 09:38 (C12) 06:29	06:31 18:19 42	07:47 (C10) 08:29 (C10) 20:24	06:09 20:24 06:07				05:00 21:25 50	06:18 (C8) 07:08 (C8) 22:08	04:25 22:08 29	06:32 (C8) 07:01 (C8) 06:32 (C8)			
	17	08:39 16:14 24	09:38 (C12) 10:02 (C12) 07:38	07:40 17:21 18	09:38 (C12) 09:39 (C12) 06:26	06:29 18:22 41	07:47 (C10) 08:28 (C10) 20:26	06:07 20:26 06:04				04:59 21:27 50	06:18 (C8) 07:08 (C8) 22:08	04:25 22:08 29	06:32 (C8) 07:01 (C8) 06:33 (C8)			
	18	08:37 16:16 23	09:39 (C12) 10:02 (C12) 07:35	07:38 17:23 19	09:39 (C12) 09:40 (C12) 06:23	06:26 18:24 39	07:47 (C10) 08:26 (C10) 20:28	06:04 20:28 06:02				04:57 21:29 49	06:19 (C8) 07:08 (C8) 22:09	04:25 22:09 28	06:33 (C8) 07:01 (C8) 06:33 (C8)			
	19	08:36 16:18 22	09:40 (C12) 10:02 (C12) 07:33	07:35 17:25 20	09:40 (C12) 09:18 (C11) 07:33	06:23 18:26 38	07:48 (C10) 08:26 (C10) 20:30	06:02 20:30 05:59				04:55 21:31 49	06:19 (C8) 07:08 (C8) 22:09	04:25 22:09 29	06:33 (C8) 07:02 (C8) 06:33 (C8)			
	20	08:35 16:20 29	09:40 (C12) 10:01 (C12) 07:31	07:33 17:28 21	09:18 (C11) 09:16 (C11) 07:31	06:21 18:28 35	07:49 (C10) 08:24 (C10) 20:32	05:59 20:32 05:57				04:53 21:33 49	06:19 (C8) 07:08 (C8) 22:10	04:25 22:10 29	06:33 (C8) 07:02 (C8) 06:33 (C8)			
	21	08:33 16:22 34	09:16 (C11) 10:02 (C12) 07:30	07:31 17:30 22	07:31 09:37 (C11) 06:37	06:18 18:30 32	07:50 (C10) 08:22 (C10) 20:34	05:57 20:34 05:54				04:51 21:35 48	06:19 (C8) 07:07 (C8) 22:10	04:25 22:10 29	06:33 (C8) 07:02 (C8) 06:34 (C8)			
	22	08:32 16:24 36	09:14 (C11) 10:01 (C12) 07:28	07:28 17:32 23	07:28 09:13 (C11) 07:26	06:15 18:32 29	07:51 (C10) 08:20 (C10) 20:37	05:54 20:37 05:52				04:50 21:36 48	06:20 (C8) 07:08 (C8) 22:10	04:25 22:10 29	06:34 (C8) 07:03 (C8) 06:34 (C8)			
	23	08:30 16:26 37	09:13 (C11) 10:00 (C12) 07:26	07:26 17:34 24	07:26 09:10 (C11) 07:23	06:13 18:34 25	07:53 (C10) 08:18 (C10) 20:39	05:52 20:39 05:49				04:48 21:38 48	06:19 (C8) 07:07 (C8) 22:10	04:26 22:10 29	06:34 (C8) 07:03 (C8) 06:34 (C8)			
	24	08:29 16:28 37	09:12 (C11) 09:59 (C12) 07:36	07:23 17:36 25	07:23 09:11 (C11) 07:21	06:10 18:36 20	07:55 (C10) 08:15 (C10) 20:41	05:49 20:41 05:47		06:42 (C8)	04:47	04:47 21:40 47	06:20 (C8) 07:07 (C8) 22:10	04:26 22:10 28	06:34 (C8) 07:02 (C8) 06:34 (C8)			
	25	08:27 16:30 36	09:11 (C11) 09:58 (C12) 07:39	07:21 17:39 26	07:21 09:11 (C11) 07:18	06:07 18:38 12	07:58 (C10) 08:10 (C10) 20:43	05:47 20:43 05:44		06:50 (C8)	04:45	04:45 21:41 46	06:21 (C8) 07:07 (C8) 22:10	04:26 22:10 29	06:34 (C8) 07:03 (C8) 06:34 (C8)			
	26	08:25 16:32 33	09:11 (C11) 09:57 (C12) 07:41	07:18 17:41 13	08:06 (C10) 08:19 (C10) 06:05	06:05 18:40 24	05:44 20:45 05:42	05:44 20:45 05:42		06:33 (C8)	04:44	04:44 21:43 45	06:21 (C8) 07:06 (C8) 22:10	04:27 22:10 29	06:34 (C8) 07:03 (C8) 06:34 (C8)			
	27	08:24 16:34 27	09:11 (C11) 09:58 (C12) 07:43	07:16 17:43 20	08:02 (C10) 08:22 (C10) 06:02	06:02 18:42 28	05:42 20:47 05:39	05:42 20:47 05:39		06:31 (C8)	04:42	04:42 21:45 45	06:21 (C8) 07:06 (C8) 22:10	04:27 22:10 30	06:34 (C8) 07:04 (C8) 06:34 (C8)			
	28	08:22 16:36 29	09:10 (C11) 09:59 (C11) 07:45	07:13 17:45 25	07:59 (C10) 08:24 (C10) 06:05	06:05 18:45 29	05:39 20:49 05:37	05:39 20:49 05:37		06:29 (C8)	04:41	04:41 21:46 44	06:22 (C8) 07:06 (C8) 22:10	04:28 22:10 31	06:34 (C8) 07:04 (C8) 06:34 (C8)			
	29	08:20 16:38 30	09:10 (C11) 09:59 (C12) 07:45	07:13 17:45 30	08:24 (C10) 09:10 (C11) 06:05	06:05 18:45 30	05:37 20:51 05:35	05:37 20:51 05:35		07:01 (C8)	04:41	04:39 21:48 44	06:22 (C8) 07:06 (C8) 22:10	04:28 22:10 31	06:34 (C8) 07:05 (C8) 06:34 (C8)			
	30	08:18 16:41 31	09:09 (C11) 09:40 (C12) 07:45	07:13 17:45 31	09:09 (C11) 09:40 (C12) 06:05	06:05 18:45 31	05:35 20:53 05:33	05:35 20:53 05:33		07:03 (C8)	04:41	04:38 21:49 42	06:23 (C8) 07:05 (C8) 22:09	04:29 22:09 32	06:34 (C8) 07:06 (C8) 06:34 (C8)			
	31	08:16 16:43 31	09:09 (C11) 09:40 (C12) 07:45	07:13 17:45 31	09:09 (C11) 09:40 (C12) 06:05	06:05 18:45 31	05:33 20:53 05:31	05:33 20:53 05:31				04:37 21:51 41	06:24 (C8) 07:05 (C8) 22:09	04:29 22:09 32	06:34 (C8) 07:06 (C8) 06:34 (C8)			
Potential sun hours		235		266		366		426				508		529				
Total, worst case		827		471		918		182				1443		965				
Sun reduction		0.13		0.20		0.41		0.50				0.57		0.56				
Oper. time red.		0.94		0.94		0.94		0.94				0.94		0.94				
Wind dir. red.		0.60		0.59		0.63		0.65				0.65		0.65				
Total reduction		0.07		0.11		0.24		0.30				0.34		0.34				
Total, real		61		52		219		55				494		325				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July		August		September		October		November		December	
1	04:30	06:34 (C8)	05:16	06:29 (C8)	06:17	07:17	08:26 (C10)	07:22	08:42 (C11)	08:24	09:18 (C12)	
2	22:09	32 07:06 (C8)	21:28	49 07:18 (C8)	20:14	18:53	45 09:11 (C10)	16:36	28 09:10 (C11)	15:45	24 09:42 (C12)	
	04:31	06:34 (C8)	05:17	06:29 (C8)	06:19	07:19	08:26 (C10)	07:25	08:41 (C11)	08:26	09:18 (C12)	
3	22:08	33 07:07 (C8)	21:26	50 07:19 (C8)	20:11	18:51	44 09:10 (C10)	16:34	29 09:10 (C11)	15:44	24 09:42 (C12)	
	04:32	06:34 (C8)	05:19	06:30 (C8)	06:21	07:21	08:26 (C10)	07:27	08:40 (C11)	08:27	09:19 (C12)	
4	22:08	33 07:07 (C8)	21:24	49 07:19 (C8)	20:09	18:48	44 09:10 (C10)	16:31	30 09:10 (C11)	15:43	23 09:42 (C12)	
	04:32	06:34 (C8)	05:21	06:30 (C8)	06:23	07:23	08:25 (C10)	07:29	08:40 (C11)	08:29	09:19 (C12)	
5	22:07	34 07:08 (C8)	21:21	48 07:18 (C8)	20:06	18:45	44 09:09 (C10)	16:29	31 09:11 (C11)	15:42	24 09:43 (C12)	
	04:33	06:33 (C8)	05:23	06:30 (C8)	06:25	07:25	08:25 (C10)	07:31	08:39 (C11)	08:31	09:20 (C12)	
6	22:06	36 07:09 (C8)	21:19	47 07:17 (C8)	20:03	18:43	44 09:09 (C10)	16:27	32 09:11 (C11)	15:41	23 09:43 (C12)	
	04:35	06:33 (C8)	05:25	06:30 (C8)	06:27	07:27	08:25 (C10)	07:33	08:40 (C11)	08:32	09:21 (C12)	
7	22:06	36 07:09 (C8)	21:17	47 07:17 (C8)	20:01	18:40	43 09:08 (C10)	16:25	32 09:12 (C11)	15:41	23 09:44 (C12)	
	04:36	06:33 (C8)	05:27	06:31 (C8)	06:29	07:29	08:26 (C10)	07:35	08:39 (C11)	08:34	09:21 (C12)	
8	22:05	37 07:10 (C8)	21:15	46 07:17 (C8)	19:58	18:38	41 09:07 (C10)	16:23	33 09:12 (C11)	15:40	22 09:43 (C12)	
	04:37	06:33 (C8)	05:29	06:31 (C8)	06:31	07:31	08:26 (C10)	07:38	08:39 (C11)	08:35	09:22 (C12)	
9	22:04	38 07:11 (C8)	21:13	45 07:16 (C8)	19:55	18:35	40 09:06 (C10)	16:21	33 09:12 (C11)	15:40	22 09:44 (C12)	
	04:38	06:32 (C8)	05:31	06:32 (C8)	06:33	07:33	08:26 (C10)	07:40	08:40 (C11)	08:36	09:22 (C12)	
10	22:03	39 07:11 (C8)	21:11	44 07:16 (C8)	19:53	18:32	39 09:05 (C10)	16:19	32 09:12 (C11)	15:39	22 09:44 (C12)	
	04:39	06:32 (C8)	05:33	06:32 (C8)	06:35	07:36	08:28 (C10)	07:42	08:40 (C11)	08:38	09:24 (C12)	
11	22:02	40 07:12 (C8)	21:08	42 07:14 (C8)	19:50	18:30	36 09:04 (C10)	16:17	32 09:12 (C11)	15:39	20 09:44 (C12)	
	04:41	06:32 (C8)	05:35	06:33 (C8)	06:37	07:38	08:29 (C10)	07:44	08:41 (C11)	08:39	09:24 (C12)	
12	22:01	40 07:12 (C8)	21:06	40 07:13 (C8)	19:47	18:27	34 09:03 (C10)	16:15	31 09:12 (C11)	15:38	20 09:44 (C12)	
	04:42	06:31 (C8)	05:37	06:33 (C8)	06:39	07:40	08:30 (C10)	07:46	08:41 (C11)	08:40	09:24 (C12)	
13	22:00	41 07:12 (C8)	21:04	39 07:12 (C8)	19:45	18:24	31 09:01 (C10)	16:13	31 09:12 (C11)	15:38	20 09:44 (C12)	
	04:43	06:32 (C8)	05:39	06:35 (C8)	06:41	07:42	08:31 (C10)	07:48	08:42 (C11)	08:41	09:26 (C12)	
14	21:59	42 07:14 (C8)	21:01	36 07:11 (C8)	19:42	18:22	28 08:59 (C10)	16:11	30 09:12 (C11)	15:38	19 09:45 (C12)	
	04:45	06:31 (C8)	05:41	06:36 (C8)	06:43	07:44	08:32 (C10)	07:51	08:42 (C11)	08:42	09:26 (C12)	
15	21:58	43 07:14 (C8)	20:59	34 07:10 (C8)	19:39	18:19	24 08:56 (C10)	16:09	29 09:11 (C11)	15:38	19 09:45 (C12)	
	04:46	06:31 (C8)	05:43	06:37 (C8)	06:45	07:46	08:35 (C10)	07:53	08:43 (C11)	08:43	09:27 (C12)	
16	21:56	43 07:14 (C8)	20:57	31 07:08 (C8)	19:36	18:17	18 08:53 (C10)	16:07	27 09:10 (C11)	15:38	18 09:45 (C12)	
	04:48	06:31 (C8)	05:45	06:39 (C8)	06:47	07:48	08:40 (C10)	07:55	08:44 (C11)	08:44	09:27 (C12)	
17	21:55	44 07:15 (C8)	20:54	27 07:06 (C8)	19:34	18:14	9 08:49 (C10)	16:06	33 09:30 (C12)	15:38	19 09:46 (C12)	
	04:49	06:30 (C8)	05:47	06:40 (C8)	06:49	07:50		07:57	08:45 (C11)	08:45	09:28 (C12)	
18	21:54	45 07:15 (C8)	20:52	23 07:03 (C8)	19:31	18:12		16:04	36 09:32 (C12)	15:38	18 09:46 (C12)	
	04:51	06:31 (C8)	05:49	06:43 (C8)	06:51	07:52	08:47 (C10)	07:59	08:46 (C11)	08:46	09:29 (C12)	
19	21:52	45 07:16 (C8)	20:49	17 07:00 (C8)	19:28	9 08:56 (C10)	18:09	16:02	37 09:33 (C12)	15:38	17 09:46 (C12)	
	04:52	06:30 (C8)	05:51	06:49 (C8)	06:53	07:54	08:42 (C10)	07:54	08:01	08:48 (C11)	08:47	09:29 (C12)
20	21:51	46 07:16 (C8)	20:47	5 06:54 (C8)	19:26	18 09:00 (C10)	18:07	16:01	37 09:35 (C12)	15:38	17 09:46 (C12)	
	04:54	06:30 (C8)	05:53		06:55	08:39 (C10)	07:56	08:03	08:49 (C11)	08:48	09:30 (C12)	
21	21:49	47 07:17 (C8)	20:44		19:23	24 09:03 (C10)	18:04	15:59	36 09:36 (C12)	15:38	17 09:47 (C12)	
	04:56	06:30 (C8)	05:55		06:57	08:37 (C10)	07:59	08:05	08:51 (C11)	08:48	09:30 (C12)	
22	21:48	47 07:17 (C8)	20:42		19:20	28 09:05 (C10)	18:02	15:57	33 09:37 (C12)	15:39	17 09:47 (C12)	
	04:57	06:30 (C8)	05:57		06:59	08:35 (C10)	08:01	08:07	08:54 (C11)	08:49	09:31 (C12)	
23	21:46	48 07:18 (C8)	20:39		19:18	31 09:06 (C10)	17:59	15:56	30 09:38 (C12)	15:39	17 09:48 (C12)	
	04:59	06:29 (C8)	05:59		07:01	08:33 (C10)	08:03	08:09	09:17 (C12)	08:49	09:31 (C12)	
24	21:44	49 07:18 (C8)	20:37		19:15	34 09:07 (C10)	17:57	15:55	22 09:39 (C12)	15:40	17 09:48 (C12)	
	05:01	06:30 (C8)	06:01		07:03	08:32 (C10)	08:05	08:11	09:16 (C12)	08:50	09:32 (C12)	
25	21:43	48 07:18 (C8)	20:34		19:12	36 09:08 (C10)	17:54	15:53	23 09:39 (C12)	15:40	17 09:49 (C12)	
	05:03	06:29 (C8)	06:03		07:05	08:30 (C10)	07:07	08:13	09:16 (C12)	08:50	09:32 (C12)	
26	21:41	49 07:18 (C8)	20:32		19:10	39 09:09 (C10)	16:52	15:52	24 09:40 (C12)	15:41	17 09:49 (C12)	
	05:04	06:29 (C8)	06:05		07:07	08:29 (C10)	07:09	08:15	09:16 (C12)	08:50	09:32 (C12)	
27	21:39	50 07:19 (C8)	20:29		19:07	40 09:09 (C10)	16:50	15:51	24 09:40 (C12)	15:42	18 09:50 (C12)	
	05:06	06:29 (C8)	06:07		07:09	08:28 (C10)	07:12	08:17	09:16 (C12)	08:51	09:32 (C12)	
28	21:37	50 07:19 (C8)	20:27		19:04	42 09:10 (C10)	16:47	13 09:02 (C11)	24 09:40 (C12)	15:43	18 09:50 (C12)	
	05:08	06:29 (C8)	06:09		07:11	08:27 (C10)	07:14	08:19	09:16 (C12)	08:51	09:33 (C12)	
29	21:35	49 07:18 (C8)	20:24		19:01	43 09:10 (C10)	16:45	18 09:04 (C11)	25 09:41 (C12)	15:44	18 09:51 (C12)	
	05:10	06:29 (C8)	06:11		07:13	08:27 (C10)	07:16	08:45 (C11)	08:20	08:51	09:33 (C12)	
30	21:34	50 07:19 (C8)	20:22		18:59	43 09:10 (C10)	16:43	22 09:07 (C11)	24 09:42 (C12)	15:44	19 09:52 (C12)	
	05:12	06:29 (C8)	06:13		07:15	08:27 (C10)	07:18	08:43 (C11)	08:22	08:51	09:34 (C12)	
31	21:32	50 07:19 (C8)	20:19		18:56	44 09:11 (C10)	16:40	25 09:08 (C11)	24 09:42 (C12)	15:45	19 09:53 (C12)	
	05:14	06:29 (C8)	06:15				07:20	08:42 (C11)		08:51	09:33 (C12)	
Potential sun hours	529	07:18 (C8)	20:16				16:38	26 09:08 (C11)		15:47	20 09:53 (C12)	
Total, worst case	1333		719		431		668		892		608	
Sun reduction	0.49		0.50		0.43		0.26		0.08		0.07	
Oper. time red.	0.94		0.94		0.94		0.94		0.94		0.94	
Wind dir. red.	0.65		0.65		0.63		0.62		0.60		0.61	
Total reduction	0.30		0.30		0.25		0.15		0.05		0.04	
Total, real	396		216		107		99		41		24	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	09:14 (C13) 17:48	07:11 19:53	06:49 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:54 (C13) 15:45
2	08:51 15:49	08:13 16:47	09:15 (C13) 17:50	07:08 19:55	06:46 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:51 (C13) 15:44
3	08:50 15:51	08:11 16:50	09:16 (C13) 17:52	07:06 19:57	06:43 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:50 (C13) 15:43
4	08:50 15:52	08:09 16:52	09:17 (C13) 17:54	07:03 19:59	06:41 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:49 (C13) 15:42
5	08:49 15:53	08:07 16:54	09:18 (C13) 17:56	07:01 20:01	06:38 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:48 (C13) 15:42
6	08:49 15:55	08:05 16:56	09:18 (C13) 17:58	06:58 20:03	06:35 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:47 (C13) 15:41
7	08:48 15:56	08:03 16:59	09:19 (C13) 18:01	06:55 20:06	06:33 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:46 (C13) 15:40
8	08:48 15:58	08:01 17:01	09:21 (C13) 18:03	06:53 20:08	06:30 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:46 (C13) 15:40
9	08:47 15:59	07:58 17:03	09:22 (C13) 18:05	06:50 20:10	06:28 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:46 (C13) 15:39
10	08:46 16:01	07:56 17:05	09:25 (C13) 18:07	06:47 20:12	06:25 21:14	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:46 (C13) 15:39
11	08:45 16:03	07:54 17:08	09:35 (C13) 18:07	06:45 20:12	06:22 21:14	04:27 22:03	04:41 22:02	05:35 21:08	06:37 19:50	07:38 18:30	07:44 16:17	08:46 (C13) 15:39
12	08:44 16:05	07:52 17:10	09:36 (C13) 18:08	06:42 20:14	06:20 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:47	07:40 18:27	07:46 16:15	08:46 (C13) 15:38
13	08:43 16:06	07:50 17:12	09:37 (C13) 18:09	06:40 20:16	06:17 21:18	04:26 22:05	04:43 22:00	05:39 21:04	06:41 19:45	07:42 18:25	07:49 16:13	08:46 (C13) 15:38
14	08:42 16:08	07:47 17:14	09:38 (C13) 18:11	06:37 20:18	06:15 21:20	04:26 22:06	04:45 21:59	05:41 21:02	06:43 19:42	07:44 18:22	07:51 16:11	08:46 (C13) 15:38
15	08:41 16:10	07:45 17:17	09:39 (C13) 18:13	06:34 20:20	06:12 21:22	04:26 22:07	04:46 21:58	05:43 20:59	06:45 19:39	07:46 18:20	07:53 16:09	08:47 (C13) 15:38
16	08:40 16:12	07:43 17:19	09:40 (C13) 18:15	06:32 20:22	06:09 21:24	04:25 22:07	04:48 21:57	05:45 20:57	06:47 19:37	07:48 18:17	07:55 16:08	08:47 (C13) 15:38
17	08:39 16:14	07:40 17:21	09:41 (C13) 18:17	06:29 20:24	06:07 21:26	04:25 22:08	04:49 21:55	05:47 20:54	06:49 19:34	07:50 18:14	07:57 16:06	08:48 (C13) 15:38
18	08:38 16:16	07:38 17:23	09:42 (C13) 18:19	06:26 20:26	06:04 21:27	04:25 22:09	04:51 21:54	05:49 20:52	06:51 19:31	07:52 18:12	07:59 16:04	08:49 (C13) 15:38
19	08:36 16:18	07:36 17:26	09:43 (C13) 18:21	06:24 20:28	06:02 21:29	04:25 22:09	04:52 21:53	05:51 20:50	06:53 19:29	07:55 18:09	08:01 16:02	08:49 (C13) 15:38
20	08:35 16:20	07:33 17:28	09:44 (C13) 18:23	06:21 20:30	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 15:59	08:50 (C13) 15:39
21	08:33 16:22	07:31 17:30	09:45 (C13) 18:25	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	08:51 (C13) 15:39
22	08:32 16:24	07:28 17:32	09:46 (C13) 18:27	06:16 20:37	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 15:56	08:53 (C13) 15:39
23	08:30 16:26	07:26 17:34	09:47 (C13) 18:29	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	08:54 (C13) 15:40
24	08:29 16:28	07:23 17:37	09:48 (C13) 18:31	06:10 20:41	05:49 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:55 (C13) 15:41
25	08:27 16:30	07:21 17:39	09:49 (C13) 18:33	06:08 20:43	05:47 21:42	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:57 (C13) 15:41
26	08:26 16:32	07:18 17:41	09:50 (C13) 18:35	06:05 20:44	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 15:51	08:59 (C13) 15:42
27	08:24 16:34	07:16 17:43	09:51 (C13) 18:37	06:02 20:45	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 15:49	08:51 (C13) 15:43
28	08:22 16:36	07:13 17:45	09:52 (C13) 18:39	05:59 20:46	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 15:48	08:51 (C13) 15:44
29	08:20 16:39	07:11 17:48	09:53 (C13) 18:41	05:57 20:47	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 (C13) 15:45
30	08:19 16:41	07:07 17:54	09:54 (C13) 18:43	05:54 20:53	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 15:46	08:51 (C13) 15:46
31	08:17 16:43	07:05 17:56	09:55 (C13) 18:45	05:51 20:54	05:37 21:51	04:30 22:10	05:14 21:30	06:15 20:17	07:20 18:38	08:23 17:38	08:25 15:47	08:51 (C13) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	376	228									606	
Sun reduction	0.13	0.20									0.08	
Oper. time red.	0.94	0.94									0.94	
Wind dir. red.	0.59	0.59									0.59	
Total reduction	0.07	0.11									0.05	
Total, real	28	26									28	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	6 07:14 (C14) 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:02 (C14) 17 07:19 (C14)	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	10 07:11 (C14) 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:01 (C14) 19 07:20 (C14)	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	14 07:09 (C14) 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:00 (C14) 20 07:20 (C14)	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	17 07:06 (C14) 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	06:59 (C14) 21 07:20 (C14)	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	20 07:23 (C14) 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	06:59 (C14) 21 07:20 (C14)	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	21 07:03 (C14) 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	06:59 (C14) 21 07:20 (C14)	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	21 07:24 (C14) 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	06:59 (C14) 20 07:19 (C14)	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	21 07:02 (C14) 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:00 (C14) 17 07:17 (C14)	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	21 07:23 (C14) 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:02 (C14) 14 07:16 (C14)	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	20 07:02 (C14) 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:04 (C14) 11 07:15 (C14)	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	19 07:21 (C14) 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:06 (C14) 7 07:13 (C14)	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	17 07:20 (C14) 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:08 (C14) 1 07:09 (C14)	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	15 07:18 (C14) 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:09 (C14) 12 07:17 (C14)	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	12 07:17 (C14) 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:04 (C14) 18:20	07:44 18:17	07:51 16:08	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	5 07:13 (C14) 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:05 (C14) 17 07:19 (C14)	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:06 (C14) 18:15	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	07:07 (C14) 18:12	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 18:03	08:01 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 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 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 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 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 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 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 17:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 17:51	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	08:12 16:48	08:17 17:50	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 17:48	08:19 15:48	08:51 15:44
29	08:20 16:39	07:11 17:49	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	07:16 16:43	08:21 17:48	08:21 15:47	08:51 15:45
30	08:19 16:41	07:09 17:54	06:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:15 16:41	08:22 17:46	08:22 15:46	08:51 15:46
31	08:17 16:43	07:07 17:51	06:52 18:45	05:31 20:49	04:37 21:51	04:37 22:10	05:14 21:30	06:15 20:17	07:17 18:56	07:17 16:38	08:22 17:46	08:22 15:46	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216	
Total, worst case				218				33	189				
Sun reduction				0.50				0.50	0.43				
Oper. time red.				0.94				0.94	0.94				
Wind dir. red.				0.66				0.66	0.66				
Total reduction				0.31				0.31	0.26				
Total, real				68				10	50				

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January			February			March	April	May	June
1	08:51	14:00 (C13)	08:15	14:05 (C13)	07:11	06:49			05:32	04:36
	15:48	29	14:29 (C13)	16:45	40	14:45 (C13)	17:47	19:53	20:55	21:53
2	08:50	14:00 (C13)	08:13	14:06 (C13)	07:08	06:46			05:30	04:35
	15:49	31	14:31 (C13)	16:47	39	14:45 (C13)	17:50	19:55	20:57	21:54
3	08:50	14:00 (C13)	08:11	14:07 (C13)	07:06	06:43			05:28	04:34
	15:51	31	14:31 (C13)	16:50	37	14:44 (C13)	17:52	19:57	20:59	21:55
4	08:50	14:00 (C13)	08:09	14:08 (C13)	07:03	06:41			05:26	04:33
	15:52	32	14:32 (C13)	16:52	36	14:44 (C13)	17:54	19:59	21:02	21:57
5	08:49	14:00 (C13)	08:07	14:09 (C13)	07:00	06:38			05:23	04:32
	15:53	33	14:33 (C13)	16:54	34	14:43 (C13)	17:56	20:01	21:04	21:58
6	08:49	14:00 (C13)	08:05	14:10 (C13)	06:58	06:35			05:21	04:31
	15:55	34	14:34 (C13)	16:56	32	14:42 (C13)	17:58	20:03	21:06	21:59
7	08:48	14:00 (C13)	08:03	14:12 (C13)	06:55	06:33			05:19	04:30
	15:56	35	14:35 (C13)	16:59	29	14:41 (C13)	18:00	20:05	21:08	22:00
8	08:47	14:00 (C13)	08:00	14:14 (C13)	06:53	06:30			05:17	04:29
	15:58	36	14:36 (C13)	17:01	25	14:39 (C13)	18:03	20:07	21:10	22:01
9	08:47	14:00 (C13)	07:58	14:16 (C13)	06:50	06:27			05:15	04:28
	15:59	36	14:36 (C13)	17:03	21	14:37 (C13)	18:05	20:10	21:12	22:02
10	08:46	14:00 (C13)	07:56	14:19 (C13)	06:47	06:25			05:13	04:28
	16:01	37	14:37 (C13)	17:05	15	14:34 (C13)	18:07	20:12	21:14	22:03
11	08:45	14:00 (C13)	07:54			06:45	06:22		06:48 (C4)	05:10
	16:03	38	14:38 (C13)	17:08		18:09	20:14	9	06:57 (C4)	21:16
12	08:44	13:59 (C13)	07:52			06:42	06:20		06:45 (C4)	05:08
	16:04	39	14:38 (C13)	17:10		18:11	20:16	13	06:58 (C4)	21:18
13	08:43	14:00 (C13)	07:49			06:39	06:17		06:43 (C4)	05:06
	16:06	39	14:39 (C13)	17:12		18:13	20:18	16	06:59 (C4)	21:20
14	08:42	14:00 (C13)	07:47			06:37	06:14		06:40 (C4)	05:04
	16:08	40	14:40 (C13)	17:14		18:15	20:20	20	07:00 (C4)	21:22
15	08:41	14:00 (C13)	07:45			06:34	06:12		06:40 (C4)	05:02
	16:10	40	14:40 (C13)	17:17		18:17	20:22	21	07:01 (C4)	21:24
16	08:40	14:00 (C13)	07:43			06:31	06:09		06:38 (C4)	05:01
	16:12	42	14:42 (C13)	17:19		18:20	20:24	22	07:00 (C4)	21:25
17	08:39	14:00 (C13)	07:40			06:29	06:07		06:38 (C4)	04:59
	16:14	42	14:42 (C13)	17:21		18:22	20:26	23	07:01 (C4)	21:27
18	08:37	14:00 (C13)	07:38			06:26	06:04		06:38 (C4)	04:57
	16:16	43	14:43 (C13)	17:23		18:24	20:28	22	07:00 (C4)	21:29
19	08:36	14:00 (C13)	07:35			06:23	06:02		06:38 (C4)	04:55
	16:18	43	14:43 (C13)	17:25		18:26	20:30	22	07:00 (C4)	21:31
20	08:35	14:01 (C13)	07:33			06:21	05:59		06:37 (C4)	04:53
	16:20	43	14:44 (C13)	17:28		18:28	20:32	22	06:59 (C4)	21:33
21	08:33	14:01 (C13)	07:31			06:18	05:57		06:38 (C4)	04:52
	16:22	43	14:44 (C13)	17:30		18:30	20:35	20	06:58 (C4)	21:35
22	08:32	14:01 (C13)	07:28			06:15	05:54		06:39 (C4)	04:50
	16:24	44	14:45 (C13)	17:32		18:32	20:37	19	06:58 (C4)	21:36
23	08:30	14:01 (C13)	07:26			06:13	05:52		06:39 (C4)	04:48
	16:26	44	14:45 (C13)	17:34		18:34	20:39	17	06:56 (C4)	21:38
24	08:29	14:01 (C13)	07:23			06:10	05:49		06:41 (C4)	04:47
	16:28	44	14:45 (C13)	17:37		18:36	20:41	14	06:55 (C4)	21:40
25	08:27	14:02 (C13)	07:21			06:07	05:47		06:43 (C4)	04:45
	16:30	44	14:46 (C13)	17:39		18:38	20:43	10	06:53 (C4)	21:42
26	08:25	14:02 (C13)	07:18			06:05	05:44			04:44
	16:32	44	14:46 (C13)	17:41		18:40	20:45			21:43
27	08:24	14:03 (C13)	07:16			06:02	05:42			04:42
	16:34	43	14:46 (C13)	17:43		18:43	20:47			21:45
28	08:22	14:03 (C13)	07:13			05:59	05:40			04:41
	16:36	43	14:46 (C13)	17:45		18:45	20:49			21:47
29	08:20	14:04 (C13)				06:57	05:37			04:39
	16:39	42	14:46 (C13)			19:47	20:51			21:48
30	08:18	14:04 (C13)				06:54	05:35			04:38
	16:41	42	14:46 (C13)			19:49	20:53			21:50
31	08:17	14:04 (C13)				06:51				04:37
	16:43	41	14:45 (C13)			19:51				21:51
Potential sun hours	235		266			366	426		508	529
Total, worst case	1217		308				270			
Sun reduction	0.13		0.20				0.50			
Oper. time red.	0.94		0.94				0.94			
Wind dir. red.	0.66		0.66				0.66			
Total reduction	0.08		0.13				0.31			
Total, real	101		39				84			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December		
1	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (C4) 18:54	07:17 16:36	13:48 (C13) 14:04 (C13)	08:24 15:45	13:42 (C13) 14:20 (C13)
2	04:31 22:08	05:17 21:26	06:19 20:11	06:55 (C4) 18:51	07:19 16:34	13:45 (C13) 14:07 (C13)	08:26 15:44	13:43 (C13) 14:20 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	13:43 (C13) 14:09 (C13)	08:28 15:43	13:43 (C13) 14:20 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	13:41 (C13) 14:10 (C13)	08:29 15:42	13:44 (C13) 14:20 (C13)
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	13:39 (C13) 14:11 (C13)	08:31 15:42	13:45 (C13) 14:20 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	13:39 (C13) 14:13 (C13)	08:32 15:41	13:46 (C13) 14:20 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	13:38 (C13) 14:14 (C13)	08:34 15:40	13:47 (C13) 14:19 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	13:37 (C13) 14:15 (C13)	08:35 15:40	13:48 (C13) 14:20 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	13:36 (C13) 14:15 (C13)	08:37 15:39	13:48 (C13) 14:19 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	13:35 (C13) 14:16 (C13)	08:38 15:39	13:50 (C13) 14:20 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	13:36 (C13) 14:17 (C13)	08:39 15:38	13:50 (C13) 14:20 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	13:35 (C13) 14:17 (C13)	08:40 15:38	13:52 (C13) 14:20 (C13)
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	13:35 (C13) 14:18 (C13)	08:42 15:38	13:52 (C13) 14:20 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	13:35 (C13) 14:18 (C13)	08:43 15:38	13:53 (C13) 14:20 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	13:34 (C13) 14:18 (C13)	08:44 15:38	13:53 (C13) 14:20 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	13:35 (C13) 14:19 (C13)	08:45 15:38	13:54 (C13) 14:20 (C13)
17	04:49 21:54	05:47 20:52	06:52 (C4) 06:55 (C4)	06:49 19:31	07:50 18:12	13:35 (C13) 14:19 (C13)	08:45 15:38	13:55 (C13) 14:21 (C13)
18	04:51 21:52	05:49 20:49	06:48 (C4) 06:59 (C4)	06:51 19:29	07:52 18:09	13:35 (C13) 14:19 (C13)	08:46 15:38	13:56 (C13) 14:21 (C13)
19	04:52 21:51	05:51 20:47	06:46 (C4) 07:01 (C4)	06:53 19:26	07:54 18:07	13:36 (C13) 14:20 (C13)	08:47 15:38	13:56 (C13) 14:21 (C13)
20	04:54 21:49	05:53 20:45	06:45 (C4) 07:02 (C4)	06:55 19:23	07:57 18:04	13:36 (C13) 14:20 (C13)	08:48 15:39	13:57 (C13) 14:21 (C13)
21	04:56 21:48	05:55 20:42	06:43 (C4) 07:03 (C4)	06:57 19:20	07:59 18:02	13:36 (C13) 14:19 (C13)	08:48 15:39	13:58 (C13) 14:22 (C13)
22	04:57 21:46	05:57 20:40	06:43 (C4) 07:03 (C4)	06:59 19:18	08:01 17:59	13:37 (C13) 14:20 (C13)	08:49 15:39	13:58 (C13) 14:22 (C13)
23	04:59 21:45	05:59 20:37	06:42 (C4) 07:04 (C4)	07:01 19:15	08:03 17:57	13:37 (C13) 14:20 (C13)	08:49 15:40	13:59 (C13) 14:23 (C13)
24	05:01 21:43	06:01 20:35	06:42 (C4) 07:04 (C4)	07:03 19:12	08:05 17:55	13:37 (C13) 14:20 (C13)	08:50 15:40	13:59 (C13) 14:24 (C13)
25	05:03 21:41	06:03 20:32	06:41 (C4) 07:04 (C4)	07:05 19:10	08:13 16:52	13:38 (C13) 14:20 (C13)	08:50 15:41	13:59 (C13) 14:24 (C13)
26	05:04 21:39	06:05 20:29	06:40 (C4) 07:02 (C4)	07:07 19:07	08:15 16:50	13:38 (C13) 14:20 (C13)	08:51 15:42	13:59 (C13) 14:24 (C13)
27	05:06 21:37	06:07 20:27	06:40 (C4) 07:02 (C4)	07:09 19:04	08:17 16:47	13:40 (C13) 14:21 (C13)	08:51 15:43	13:59 (C13) 14:25 (C13)
28	05:08 21:36	06:09 20:24	06:41 (C4) 07:01 (C4)	07:11 19:02	08:19 16:45	13:40 (C13) 14:20 (C13)	08:51 15:44	13:59 (C13) 14:26 (C13)
29	05:10 21:34	06:11 20:22	06:41 (C4) 07:00 (C4)	07:13 18:59	08:21 16:43	13:41 (C13) 14:20 (C13)	08:51 15:45	14:00 (C13) 14:27 (C13)
30	05:12 21:32	06:13 20:19	06:43 (C4) 06:59 (C4)	07:15 18:56	08:22 16:40	13:42 (C13) 14:20 (C13)	08:51 15:46	14:00 (C13) 14:28 (C13)
31	05:14 21:30	06:15 20:17	06:45 (C4) 06:58 (C4)		07:20 16:38	13:54 (C13) 13:58 (C13)	08:51 15:47	14:00 (C13) 14:29 (C13)
Potential sun hours	529	469	385	324	247	216		
Total, worst case		265	8	4	1160	892		
Sun reduction		0.50	0.43	0.26	0.08	0.07		
Oper. time red.		0.94	0.94	0.94	0.94	0.94		
Wind dir. red.		0.66	0.66	0.66	0.66	0.66		
Total reduction		0.31	0.26	0.16	0.05	0.04		
Total, real		82	2	1	60	39		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	14:21 (C13) 15:05 (C13)	07:11 17:47	06:49 19:53	05:32 21:52
2	08:50 15:49	08:13 16:47	14:22 (C13) 15:05 (C13)	07:08 17:50	06:46 19:55	05:30 21:54
3	08:50 15:51	08:11 16:50	14:22 (C13) 15:05 (C13)	07:06 17:52	06:43 19:57	05:28 21:55
4	08:50 15:52	14:30 (C13) 08:09 16:52	14:23 (C13) 15:05 (C13)	07:03 17:54	06:41 19:59	05:26 21:57
5	08:49 15:53	14:29 (C13) 08:07 16:54	14:24 (C13) 15:05 (C13)	07:00 17:56	06:38 20:01	05:23 21:58
6	08:49 15:55	14:28 (C13) 08:05 16:56	14:24 (C13) 15:04 (C13)	06:58 17:58	06:35 20:03	05:21 21:59
7	08:48 15:56	14:27 (C13) 08:03 16:59	14:25 (C13) 15:04 (C13)	06:55 18:00	06:33 20:05	05:19 22:00
8	08:47 15:58	14:26 (C13) 08:00 17:01	14:26 (C13) 15:04 (C13)	06:53 18:03	06:30 20:07	05:17 22:01
9	08:47 15:59	14:25 (C13) 07:58 17:03	14:26 (C13) 15:02 (C13)	06:50 18:05	06:27 20:10	05:15 22:02
10	08:46 16:01	14:25 (C13) 07:56 17:05	14:28 (C13) 15:02 (C13)	06:47 18:07	06:25 20:12	05:13 22:03
11	08:45 16:03	14:25 (C13) 07:54 17:08	14:29 (C13) 15:01 (C13)	06:45 18:09	06:22 20:14	05:10 22:04
12	08:44 16:04	14:23 (C13) 07:52 17:10	14:30 (C13) 15:01 (C13)	06:42 18:11	06:20 20:16	05:08 22:05
13	08:43 16:06	14:23 (C13) 07:49 17:12	14:33 (C13) 15:08 (C13)	06:39 18:13	06:17 20:18	05:06 22:06
14	08:42 16:08	14:23 (C13) 07:47 17:14	14:35 (C13) 15:05 (C13)	06:37 18:15	06:14 20:20	05:04 22:07
15	08:41 16:10	14:22 (C13) 07:45 17:17	14:39 (C13) 15:02 (C13)	06:34 18:17	9 06:40 (C4) 06:49 (C4)	05:02 22:07
16	08:40 16:12	14:22 (C13) 07:43 17:19	14:52 (C13) 15:06 (C13)	06:31 18:20	13 06:51 (C4) 06:35 (C4)	21:24 05:01
17	08:39 16:14	14:21 (C13) 07:40 17:21	14:59 (C13) 15:07 (C13)	06:29 18:22	17 06:52 (C4) 06:33 (C4)	22:07 05:01
18	08:37 16:16	14:22 (C13) 07:38 17:23	14:58 (C13) 15:08 (C13)	06:26 18:24	20 06:53 (C4) 06:32 (C4)	22:08 05:01
19	08:36 16:18	14:21 (C13) 07:35 17:25	14:55 (C13) 15:09 (C13)	06:23 18:26	21 06:54 (C4) 06:33 (C4)	22:09 05:02
20	08:35 16:20	14:22 (C13) 07:33 17:28	14:52 (C13) 15:10 (C13)	06:21 18:28	22 06:54 (C4) 06:30 (C4)	22:09 05:03
21	08:33 16:22	14:21 (C13) 07:31 17:30	14:58 (C13) 15:11 (C13)	06:18 18:30	23 06:53 (C4) 06:30 (C4)	22:10 05:04
22	08:32 16:24	14:21 (C13) 07:28 17:32	14:57 (C13) 15:12 (C13)	06:15 18:32	24 06:54 (C4) 06:31 (C4)	22:10 05:05
23	08:30 16:26	14:20 (C13) 07:26 17:34	14:56 (C13) 15:13 (C13)	06:13 18:34	23 06:54 (C4) 06:30 (C4)	22:10 05:06
24	08:29 16:28	14:20 (C13) 07:23 17:37	14:55 (C13) 15:14 (C13)	06:10 18:36	23 06:53 (C4) 06:30 (C4)	22:10 05:07
25	08:27 16:30	14:21 (C13) 07:21 17:39	14:54 (C13) 15:15 (C13)	06:07 18:38	22 06:52 (C4) 06:31 (C4)	22:10 05:08
26	08:25 16:32	14:21 (C13) 07:18 17:41	14:53 (C13) 15:16 (C13)	06:05 18:40	21 06:52 (C4) 06:30 (C4)	22:10 05:09
27	08:24 16:34	14:21 (C13) 07:16 17:43	14:52 (C13) 15:17 (C13)	06:02 18:43	19 06:50 (C4) 06:32 (C4)	22:10 05:10
28	08:22 16:36	14:21 (C13) 07:13 17:45	14:51 (C13) 15:18 (C13)	05:59 18:45	17 06:49 (C4) 06:34 (C4)	22:10 05:11
29	08:20 16:39	14:21 (C13) 07:11 17:47	14:50 (C13) 15:19 (C13)	05:57 19:47	14 06:48 (C4) 06:36 (C4)	22:10 05:12
30	08:18 16:41	14:21 (C13) 07:09 17:49	14:49 (C13) 15:20 (C13)	05:55 19:49	10 06:46 (C4) 06:38 (C4)	22:10 05:13
31	08:17 16:43	14:21 (C13) 07:07 17:51	14:48 (C13) 15:21 (C13)	05:53 19:51	06:37 (C4) 06:40 (C4)	22:09 05:14
Potential sun hours	235	266	366	426	508	529
Total, worst case	921	519		298		
Sun reduction	0.13	0.20		0.50		
Oper. time red.	0.94	0.94		0.94		
Wind dir. red.	0.66	0.66		0.65		
Total reduction	0.08	0.13		0.31		
Total, real	77	66		92		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July	August	September	October	November	December		
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	13:57 (C13) 14:32 (C13)	08:24 15:45	14:07 (C13) 14:33 (C13)
2	04:31 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	13:56 (C13) 14:32 (C13)	08:26 15:44	14:08 (C13) 14:33 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	13:55 (C13) 14:34 (C13)	08:27 15:43	14:08 (C13) 14:31 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	13:54 (C13) 14:34 (C13)	08:29 15:42	14:10 (C13) 14:31 (C13)
5	04:34 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	13:53 (C13) 14:34 (C13)	08:31 15:42	14:12 (C13) 14:30 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	13:53 (C13) 14:35 (C13)	08:32 15:41	14:14 (C13) 14:29 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	13:53 (C13) 14:35 (C13)	08:34 15:40	14:15 (C13) 14:28 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	13:53 (C13) 14:36 (C13)	08:35 15:40	14:18 (C13) 14:27 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	13:52 (C13) 14:36 (C13)	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	13:52 (C13) 14:36 (C13)	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	13:53 (C13) 14:37 (C13)	08:39 15:38	
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	13:52 (C13) 14:36 (C13)	08:40 15:38	
13	04:43 21:59	05:39 21:01	06:46 (C4) 06:51 (C4)	07:42 19:42	07:49 16:11	13:53 (C13) 14:37 (C13)	08:41 15:38	
14	04:45 21:58	05:41 20:59	06:42 (C4) 06:54 (C4)	07:44 19:39	07:51 16:09	13:53 (C13) 14:37 (C13)	08:43 15:38	
15	04:46 21:57	05:43 20:57	06:41 (C4) 06:56 (C4)	07:46 19:37	07:53 16:08	13:53 (C13) 14:37 (C13)	08:44 15:38	
16	04:48 21:55	05:45 20:54	06:39 (C4) 06:57 (C4)	07:48 19:34	07:55 16:06	13:54 (C13) 14:37 (C13)	08:45 15:38	
17	04:49 21:54	05:47 20:52	06:37 (C4) 06:57 (C4)	07:50 19:31	07:57 16:04	13:54 (C13) 14:37 (C13)	08:45 15:38	
18	04:51 21:52	05:49 20:49	06:37 (C4) 06:58 (C4)	07:52 19:29	07:59 16:02	13:54 (C13) 14:36 (C13)	08:46 15:38	
19	04:52 21:51	05:51 20:47	06:36 (C4) 06:58 (C4)	07:54 19:26	08:01 16:01	13:55 (C13) 14:37 (C13)	08:47 15:38	
20	04:54 21:49	05:53 20:45	06:36 (C4) 06:58 (C4)	07:57 19:23	08:03 15:59	13:56 (C13) 14:36 (C13)	08:48 15:39	
21	04:56 21:48	05:55 20:42	06:35 (C4) 06:58 (C4)	07:59 19:20	08:05 15:58	13:56 (C13) 14:36 (C13)	08:48 15:39	
22	04:57 21:46	05:57 20:40	06:35 (C4) 06:58 (C4)	08:01 19:18	08:07 15:56	13:58 (C13) 14:36 (C13)	08:49 15:39	
23	04:59 21:45	05:59 20:37	06:35 (C4) 06:58 (C4)	08:03 19:15	08:09 15:55	13:58 (C13) 14:36 (C13)	08:49 15:40	
24	05:01 21:43	06:01 20:35	06:35 (C4) 06:57 (C4)	08:05 19:12	08:11 15:53	13:59 (C13) 14:35 (C13)	08:50 15:40	
25	05:03 21:41	06:03 20:32	06:36 (C4) 06:57 (C4)	08:07 19:10	08:13 15:52	13:59 (C13) 14:35 (C13)	08:50 15:41	
26	05:04 21:39	06:05 20:29	06:35 (C4) 06:55 (C4)	08:09 19:07	08:15 15:51	14:00 (C13) 14:34 (C13)	08:51 15:42	
27	05:06 21:37	06:07 20:27	06:37 (C4) 06:53 (C4)	08:11 19:04	08:17 15:49	14:02 (C13) 14:35 (C13)	08:51 15:43	
28	05:08 21:36	06:09 20:24	06:39 (C4) 06:52 (C4)	08:14 19:02	08:19 15:48	14:03 (C13) 14:34 (C13)	08:51 15:44	
29	05:10 21:34	06:11 20:22	06:41 (C4) 06:49 (C4)	08:16 18:59	08:21 15:47	14:04 (C13) 14:34 (C13)	08:51 15:45	
30	05:12 21:32	06:13 20:19		08:18 18:56	08:22 15:46	14:05 (C13) 14:34 (C13)	08:51 15:46	
31	05:14 21:30	06:15 20:17		08:20 16:38	08:22 14:30 (C13)	13:58 (C13)	08:51 15:47	
Potential sun hours	529	469	385	324	247		216	
Total, worst case		304		123	1181		150	
Sun reduction		0.50		0.26	0.08		0.07	
Oper. time red.		0.94		0.94	0.94		0.94	
Wind dir. red.		0.65		0.66	0.66		0.66	
Total reduction		0.31		0.16	0.05		0.04	
Total, real		94		20	61		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)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

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

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

January			February			March			April			May			June		
1	08:51	12:54 (C16)	08:15		13:16 (C16)	07:11		15:36 (C15)	06:49		05:32				04:36		20:28 (C13)
	15:48	46	13:40 (C16)	16:45	23	13:39 (C16)	17:47	38	16:14 (C15)	19:53	20:55				21:52	31	20:59 (C13)
2	08:50	12:54 (C16)	08:13		13:19 (C16)	07:08		15:36 (C15)	06:46		05:30				04:35		20:28 (C13)
	15:49	46	13:40 (C16)	16:47	18	13:37 (C16)	17:50	36	16:12 (C15)	19:55	20:57				21:54	31	20:59 (C13)
3	08:50	12:55 (C16)	08:11		13:23 (C16)	07:06		15:38 (C15)	06:43		05:28				04:34		20:27 (C13)
	15:51	46	13:41 (C16)	16:50	10	13:33 (C16)	17:52	34	16:12 (C15)	19:57	20:59				21:55	32	20:59 (C13)
4	08:50	12:55 (C16)	08:09			07:03		15:39 (C15)	06:41		05:26				04:33		20:27 (C13)
	15:52	46	13:41 (C16)	16:52		17:54	31	16:10 (C15)	19:59	21:01					21:56	33	21:00 (C13)
5	08:49	12:55 (C16)	08:07			07:00		15:40 (C15)	06:38		05:23				04:32		20:27 (C13)
	15:53	46	13:41 (C16)	16:54		17:56	27	16:07 (C15)	20:01	21:04					21:58	34	21:01 (C13)
6	08:49	12:56 (C16)	08:05		15:52 (C15)	06:58		15:43 (C15)	06:35		05:21				04:31		20:27 (C13)
	15:55	47	13:43 (C16)	16:56	5	15:57 (C15)	17:58	23	16:06 (C15)	20:03	21:06				21:59	34	21:01 (C13)
7	08:48	12:57 (C16)	08:03		15:48 (C15)	06:55		15:46 (C15)	06:33		05:19				04:30		20:27 (C13)
	15:56	46	13:43 (C16)	16:59	15	16:03 (C15)	18:00	16	16:02 (C15)	20:05	21:08				22:00	34	21:01 (C13)
8	08:47	12:57 (C16)	08:00		15:45 (C15)	06:53			06:30		05:17				04:29		20:27 (C13)
	15:58	47	13:44 (C16)	17:01	21	16:06 (C15)	18:03		20:07		21:10				22:01	35	21:02 (C13)
9	08:47	12:57 (C16)	07:58		15:42 (C15)	06:50			06:27		05:15				04:29		20:27 (C13)
	15:59	47	13:44 (C16)	17:03	26	16:08 (C15)	18:05		20:10		21:12				22:02	35	21:02 (C13)
10	08:46	12:58 (C16)	07:56		15:41 (C15)	06:47		17:27 (C14)	06:25		05:13				04:28		20:27 (C13)
	16:01	47	13:45 (C16)	17:05	29	16:10 (C15)	18:07	8	17:35 (C14)	20:12	21:14				22:03	36	21:03 (C13)
11	08:45	12:58 (C16)	07:54		15:39 (C15)	06:45		17:23 (C14)	06:22		05:10				04:27		20:27 (C13)
	16:03	47	13:45 (C16)	17:08	32	16:11 (C15)	18:09	15	17:38 (C14)	20:14	21:16				22:04	36	21:03 (C13)
12	08:44	12:58 (C16)	07:52		15:38 (C15)	06:42		17:22 (C14)	06:20		05:08				04:27		20:27 (C13)
	16:04	47	13:45 (C16)	17:10	35	16:13 (C15)	18:11	18	17:40 (C14)	20:16	21:18				22:05	36	21:03 (C13)
13	08:43	12:59 (C16)	07:49		15:38 (C15)	06:39		17:20 (C14)	06:17		05:06				04:26		20:27 (C13)
	16:06	46	13:45 (C16)	17:12	36	16:14 (C15)	18:13	21	17:41 (C14)	20:18	21:20				22:06	37	21:04 (C13)
14	08:42	12:59 (C16)	07:47		15:36 (C15)	06:37		17:18 (C14)	06:14		05:04				04:26		20:28 (C13)
	16:08	47	13:46 (C16)	17:14	38	16:14 (C15)	18:15	24	17:42 (C14)	20:20	21:21				22:06	36	21:04 (C13)
15	08:41	12:59 (C16)	07:45		15:36 (C15)	06:34		17:17 (C14)	06:12		05:03				04:26		20:27 (C13)
	16:10	47	13:46 (C16)	17:17	40	16:16 (C15)	18:17	25	17:42 (C14)	20:22	21:23				22:07	37	21:04 (C13)
16	08:40	13:00 (C16)	07:42		15:35 (C15)	06:31		17:16 (C14)	06:09		05:01				04:25		20:27 (C13)
	16:12	46	13:46 (C16)	17:19	41	16:16 (C15)	18:20	27	17:43 (C14)	20:24	21:25				22:08	37	21:04 (C13)
17	08:39	13:00 (C16)	07:40		15:35 (C15)	06:29		17:15 (C14)	06:07		04:59				04:25		20:28 (C13)
	16:14	46	13:46 (C16)	17:21	42	16:17 (C15)	18:22	28	17:43 (C14)	20:26	21:27				22:08	37	21:05 (C13)
18	08:37	13:01 (C16)	07:38		15:34 (C15)	06:26		17:15 (C14)	06:04		04:57				04:25		20:28 (C13)
	16:16	46	13:47 (C16)	17:23	43	16:17 (C15)	18:24	27	17:42 (C14)	20:28	21:29				22:09	37	21:05 (C13)
19	08:36	13:01 (C16)	07:35		15:34 (C15)	06:23		17:15 (C14)	06:02		04:55				04:25		20:28 (C13)
	16:18	46	13:47 (C16)	17:25	43	16:17 (C15)	18:26	28	17:43 (C14)	20:30	21:31				22:09	37	21:05 (C13)
20	08:35	13:02 (C16)	07:33		15:33 (C15)	06:21		17:15 (C14)	05:59		04:53				04:25		20:28 (C13)
	16:20	44	13:46 (C16)	17:28	44	16:17 (C15)	18:28	27	17:42 (C14)	20:32	21:33				22:10	37	21:05 (C13)
21	08:33	13:03 (C16)	07:31		15:34 (C15)	06:18		17:15 (C14)	05:57		04:52				04:25		20:29 (C13)
	16:22	44	13:47 (C16)	17:30	44	16:18 (C15)	18:30	26	17:41 (C14)	20:35	21:35				22:10	37	21:06 (C13)
22	08:32	13:03 (C16)	07:28		15:33 (C15)	06:15		17:16 (C14)	05:54		04:50			20:40 (C13)	04:25		20:29 (C13)
	16:24	44	13:47 (C16)	17:32	44	16:17 (C15)	18:32	24	17:40 (C14)	20:37	21:36	5	20:45 (C13)		22:10	37	21:06 (C13)
23	08:30	13:04 (C16)	07:26		15:34 (C15)	06:13		17:16 (C14)	05:52		04:48			20:37 (C13)	04:26		20:29 (C13)
	16:26	42	13:46 (C16)	17:34	44	16:18 (C15)	18:34	23	17:39 (C14)	20:39	21:38	12	20:49 (C13)		22:10	37	21:06 (C13)
24	08:29	13:05 (C16)	07:23		15:33 (C15)	06:10		17:16 (C14)	05:49		04:47			20:34 (C13)	04:26		20:29 (C13)
	16:28	41	13:46 (C16)	17:37	44	16:17 (C15)	18:36	21	17:37 (C14)	20:41	21:40	16	20:50 (C13)		22:10	37	21:06 (C13)
25	08:27	13:05 (C16)	07:21		15:33 (C15)	06:07		17:18 (C14)	05:47		04:45			20:33 (C13)	04:26		20:30 (C13)
	16:30	40	13:45 (C16)	17:39	43	16:16 (C15)	18:38	17	17:35 (C14)	20:43	21:42	19	20:52 (C13)		22:10	37	21:07 (C13)
26	08:25	13:07 (C16)	07:18		15:34 (C15)	06:05		17:20 (C14)	05:44		04:44			20:32 (C13)	04:27		20:29 (C13)
	16:32	39	13:46 (C16)	17:41	42	16:16 (C15)	18:40	13	17:33 (C14)	20:45	21:43	22	20:54 (C13)		22:10	37	21:06 (C13)
27	08:24	13:08 (C16)	07:16		15:34 (C15)	06:02		17:25 (C14)	05:42		04:42			20:30 (C13)	04:27		20:30 (C13)
	16:34	37	13:45 (C16)	17:43	41	16:15 (C15)	18:43	2	17:27 (C14)	20:47	21:45	24	20:54 (C13)		22:10	37	21:07 (C13)
28	08:22	13:10 (C16)	07:13		15:35 (C15)	05:59			05:40		04:41			20:30 (C13)	04:28		20:30 (C13)
	16:36	35	13:45 (C16)	17:45	40	16:15 (C15)	18:45		20:49		21:46	25	20:55 (C13)		22:10	37	21:07 (C13)
29	08:20	13:11 (C16)				06:57			05:37		04:40			20:29 (C13)	04:29		20:31 (C13)
	16:39	33	13:44 (C16)			19:47			20:51		21:48	27	20:56 (C13)		22:10	36	21:07 (C13)
30	08:18	13:11 (C16)				06:54			05:35		04:38			20:29 (C13)	04:29		20:31 (C13)
	16:41	31	13:42 (C16)			19:49			20:53		21:49	28	20:57 (C13)		22:09	37	21:08 (C13)
31	08:16	13:13 (C16)				06:51					04:37			20:28 (C13)			
	16:43	28	13:41 (C16)			19:51					21:51	30	20:58 (C13)				
Potential sun hours	235		266			366			426		508				528		
Total, worst case	1340		883			579					208					1071	
Sun reduction	0.13		0.20			0.41					0.57					0.56	
Oper. time red.	0.94		0.94			0.94					0.94					0.94	
Wind dir. red.	0.63		0.66			0.66					0.62					0.62	
Total reduction	0.08		0.13			0.26					0.33					0.33	
Total, real	107		112			149					69					350	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

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

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

	July				August		September			October			November			December		
1	04:30		20:31 (C13)	05:16	06:17				07:17	18:00 (C14)	07:22	15:11 (C15)	08:24		12:40 (C16)			
	22:09	36	21:07 (C13)	21:28	20:14				18:54	20	18:20 (C14)	16:36	28	15:39 (C15)	15:45	47	13:27 (C16)	
2	04:31		20:31 (C13)	05:18	06:19				07:19	18:01 (C14)	07:25	15:12 (C15)	08:26		12:40 (C16)			
	22:08	36	21:07 (C13)	21:26	20:11				18:51	17	18:18 (C14)	16:34	25	15:37 (C15)	15:44	47	13:27 (C16)	
3	04:32		20:32 (C13)	05:19	06:21				07:21	18:03 (C14)	07:27	15:15 (C15)	08:27		12:40 (C16)			
	22:08	35	21:07 (C13)	21:24	20:09				18:48	12	18:15 (C14)	16:32	21	15:36 (C15)	15:43	47	13:27 (C16)	
4	04:33		20:32 (C13)	05:21	06:23				07:23		07:29	15:18 (C15)	08:29		12:41 (C16)			
	22:07	36	21:08 (C13)	21:21	20:06				18:46		16:29	14	15:32 (C15)	15:42	47	13:28 (C16)		
5	04:34		20:33 (C13)	05:23	06:25				07:25		07:31		08:31		12:42 (C16)			
	22:07	35	21:08 (C13)	21:19	20:03				18:43		16:27		15:42	46	13:28 (C16)			
6	04:35		20:33 (C13)	05:25	06:27				07:27		16:25 (C15)	07:33	08:32		12:42 (C16)			
	22:06	35	21:08 (C13)	21:17	20:01				18:40	11	16:36 (C15)	16:25		15:41	47	13:29 (C16)		
7	04:36		20:34 (C13)	05:27	06:29				07:29		16:20 (C15)	07:35	08:34		12:42 (C16)			
	22:05	34	21:08 (C13)	21:15	19:58				18:38	19	16:39 (C15)	16:23	15:40	47	13:29 (C16)			
8	04:37		20:34 (C13)	05:29	06:31				07:31		16:17 (C15)	07:38	12:54 (C16)	08:35	12:43 (C16)			
	22:04	33	21:07 (C13)	21:13	19:55				18:35	24	16:41 (C15)	16:21	10	13:04 (C16)	15:40	46	13:29 (C16)	
9	04:38		20:34 (C13)	05:31	06:33				07:34		16:14 (C15)	07:40	12:49 (C16)	08:36	12:43 (C16)			
	22:03	33	21:07 (C13)	21:11	19:53				18:32	29	16:43 (C15)	16:19	19	13:08 (C16)	15:39	46	13:29 (C16)	
10	04:39		20:35 (C13)	05:33	06:35				07:36		16:13 (C15)	07:42	12:46 (C16)	08:38	12:44 (C16)			
	22:02	32	21:07 (C13)	21:08	19:50				18:30	32	16:45 (C15)	16:17	24	13:10 (C16)	15:39	46	13:30 (C16)	
11	04:41		20:35 (C13)	05:35	06:37				07:38		16:11 (C15)	07:44	12:45 (C16)	08:39	12:44 (C16)			
	22:01	31	21:06 (C13)	21:06	19:47				18:27	35	16:46 (C15)	16:15	27	13:12 (C16)	15:38	46	13:30 (C16)	
12	04:42		20:37 (C13)	05:37	06:39				07:40		16:10 (C15)	07:46	12:43 (C16)	08:40	12:45 (C16)			
	22:00	30	21:07 (C13)	21:04	19:45				18:25	37	16:47 (C15)	16:13	31	13:14 (C16)	15:38	45	13:30 (C16)	
13	04:43		20:37 (C13)	05:39	06:41				07:42		16:08 (C15)	07:48	12:43 (C16)	08:41	12:46 (C16)			
	21:59	29	21:06 (C13)	21:01	19:42				18:22	39	16:47 (C15)	16:11	33	13:16 (C16)	15:38	45	13:31 (C16)	
14	04:45		20:37 (C13)	05:41	06:43				07:44		16:07 (C15)	07:51	12:41 (C16)	08:42	12:46 (C16)			
	21:58	28	21:05 (C13)	20:59	19:39				18:19	40	16:47 (C15)	16:09	36	13:17 (C16)	15:38	45	13:31 (C16)	
15	04:46		20:38 (C13)	05:43	06:45				07:46		16:07 (C15)	07:53	12:40 (C16)	08:44	12:47 (C16)			
	21:56	26	21:04 (C13)	20:57	19:37				18:17	41	16:48 (C15)	16:08	37	13:17 (C16)	15:38	45	13:32 (C16)	
16	04:48		20:39 (C13)	05:45	06:47				07:48		16:06 (C15)	07:55	12:40 (C16)	08:44	12:47 (C16)			
	21:55	25	21:04 (C13)	20:54	19:34				18:14	42	16:48 (C15)	16:06	39	13:19 (C16)	15:38	45	13:32 (C16)	
17	04:49		20:40 (C13)	05:47	06:49		18:09 (C14)	07:50		16:05 (C15)	07:57	12:39 (C16)	08:45	12:48 (C16)				
	21:54	23	21:03 (C13)	20:52	19:31	12	18:21 (C14)	18:12	43	16:48 (C15)	16:04	40	13:19 (C16)	15:38	45	13:33 (C16)		
18	04:51		20:42 (C13)	05:49	06:51		18:07 (C14)	07:52		16:04 (C15)	07:59	12:39 (C16)	08:46	12:49 (C16)				
	21:52	21	21:03 (C13)	20:49	19:28	16	18:23 (C14)	18:09	44	16:48 (C15)	16:02	41	13:20 (C16)	15:38	44	13:33 (C16)		
19	04:52		20:43 (C13)	05:51	06:53		18:04 (C14)	07:54		16:04 (C15)	08:01	12:39 (C16)	08:47	12:48 (C16)				
	21:51	18	21:01 (C13)	20:47	19:26	20	18:24 (C14)	18:07	44	16:48 (C15)	16:01	42	13:21 (C16)	15:38	45	13:33 (C16)		
20	04:54		20:45 (C13)	05:53	06:55		18:02 (C14)	07:57		16:04 (C15)	08:03	12:38 (C16)	08:48	12:49 (C16)				
	21:49	15	21:00 (C13)	20:44	19:23	22	18:24 (C14)	18:04	44	16:48 (C15)	15:59	44	13:22 (C16)	15:39	45	13:34 (C16)		
21	04:56		20:47 (C13)	05:55	06:57		18:00 (C14)	07:59		16:04 (C15)	08:05	12:38 (C16)	08:48	12:49 (C16)				
	21:48	10	20:57 (C13)	20:42	19:20	25	18:25 (C14)	18:02	44	16:48 (C15)	15:58	44	13:22 (C16)	15:39	45	13:34 (C16)		
22	04:57			05:57	06:59		17:59 (C14)	08:01		16:04 (C15)	08:07	12:39 (C16)	08:49	12:50 (C16)				
	21:46			20:40	19:18	26	18:25 (C14)	17:59	43	16:47 (C15)	15:56	44	13:23 (C16)	15:39	45	13:35 (C16)		
23	04:59			05:59	07:01		17:59 (C14)	08:03		16:04 (C15)	08:09	12:38 (C16)	08:49	12:50 (C16)				
	21:44			20:37	19:15	26	18:25 (C14)	17:57	44	16:48 (C15)	15:55	46	13:24 (C16)	15:40	45	13:35 (C16)		
24	05:01			06:01	07:03		17:58 (C14)	08:05		16:04 (C15)	08:11	12:38 (C16)	08:50	12:51 (C16)				
	21:43			20:34	19:12	27	18:25 (C14)	17:55	43	16:47 (C15)	15:53	46	13:24 (C16)	15:41	45	13:36 (C16)		
25	05:03			06:03	07:05		17:57 (C14)	07:07		15:04 (C15)	08:13	12:38 (C16)	08:50	12:51 (C16)				
	21:41			20:32	19:10	28	18:25 (C14)	16:52	42	15:46 (C15)	15:52	46	13:24 (C16)	15:41	45	13:36 (C16)		
26	05:04			06:05	07:07		17:57 (C14)	07:09		15:05 (C15)	08:15	12:38 (C16)	08:50	12:52 (C16)				
	21:39			20:29	19:07	27	18:24 (C14)	16:50	41	15:46 (C15)	15:51	46	13:24 (C16)	15:42	44	13:36 (C16)		
27	05:06			06:07	07:09		17:57 (C14)	07:12		15:06 (C15)	08:17	12:38 (C16)	08:51	12:52 (C16)				
	21:37			20:27	19:04	27	18:24 (C14)	16:47	39	15:45 (C15)	15:49	47	13:25 (C16)	15:43	45	13:37 (C16)		
28	05:08			06:09	07:11		17:57 (C14)	07:14		15:06 (C15)	08:19	12:39 (C16)	08:51	12:53 (C16)				
	21:36			20:24	19:02	26	18:23 (C14)	16:45	38	15:44 (C15)	15:48	47	13:26 (C16)	15:44	44	13:37 (C16)		
29	05:10			06:11	07:13		17:58 (C14)	07:16		15:07 (C15)	08:20	12:40 (C16)	08:51	12:53 (C16)				
	21:34			20:22	18:59	25	18:23 (C14)	16:43	36	15:43 (C15)	15:47	46	13:26 (C16)	15:45	45	13:38 (C16)		
30	05:12			06:13	07:15		17:59 (C14)	07:18		15:08 (C15)	08:22	12:40 (C16)	08:51	12:54 (C16)				
	21:32			20:19	18:56	23	18:22 (C14)	16:40	34	15:42 (C15)	15:46	47	13:27 (C16)	15:46	45	13:39 (C16)		
31	05:14			06:15				07:20		15:09 (C15)			08:51	12:53 (C16)				
	21:30			20:16				16:38	31	15:40 (C15)			15:47	46	13:39 (C16)			
Potential sun hours	529			469	385			324			247		216					
Total, worst case	601				330			1008			970		1410					
Sun reduction	0.49				0.43			0.26			0.08		0.07					
Oper. time red.	0.94				0.94			0.94			0.94		0.94					
Wind dir. red.	0.62				0.66			0.67			0.64		0.63					
Total reduction	0.29				0.26			0.16			0.05		0.04					
Total, real	173				87			164			48		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:
09/04/2024 19:39/4.0.531

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
425 448 518 446 469 751 755 902 1,169 1,037 801 535 8,256
Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	09:06 (C13) 17:48	07:11 19:53	06:49 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	06:17 18:54	07:23 16:36	08:29 (C13) 15:45
2	08:50 15:49	08:13 16:47	09:05 (C13) 17:50	07:08 19:55	06:46 20:57	05:30 21:54	04:35 22:09	04:31 21:26	05:18 20:11	06:19 18:51	07:25 16:34	08:29 (C13) 15:44
3	08:50 15:51	08:11 16:50	09:04 (C13) 17:52	07:06 19:57	06:43 20:58	05:28 21:55	04:34 22:08	04:32 21:24	05:20 20:09	06:21 18:48	07:27 16:32	08:30 (C13) 15:43
4	08:50 15:52	08:09 16:52	09:03 (C13) 17:54	07:03 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:21 20:06	06:23 18:46	07:23 16:29	08:30 (C13) 15:42
5	08:49 15:53	08:07 16:54	09:02 (C13) 17:56	07:01 19:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 18:43	07:25 16:27	08:31 (C13) 15:42
6	08:49 15:55	08:05 16:56	09:01 (C13) 17:58	06:58 20:03	06:35 21:06	05:21 21:59	04:31 22:06	04:35 21:17	05:25 20:01	06:27 18:40	07:27 16:25	08:32 (C13) 15:41
7	08:48 15:56	08:03 16:59	09:01 (C13) 18:01	06:55 20:05	06:33 21:08	05:19 22:00	04:30 22:05	04:36 21:15	05:27 19:58	06:29 18:38	07:30 16:23	08:33 (C13) 15:40
8	08:48 15:58	08:01 17:01	09:00 (C13) 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:29 22:04	04:37 21:13	05:29 19:55	06:31 18:35	07:32 16:21	08:35 (C13) 15:40
9	08:47 15:59	07:58 17:03	08:59 (C13) 18:05	06:50 20:10	06:28 21:12	05:15 22:02	04:29 22:03	04:38 21:11	05:31 19:53	06:33 18:32	07:34 16:19	08:36 (C13) 15:39
10	08:46 16:01	07:56 17:05	08:59 (C13) 18:07	06:47 20:12	06:25 21:14	05:13 22:03	04:28 22:02	04:39 21:08	05:33 19:50	06:35 18:30	07:36 16:17	08:38 (C13) 15:39
11	08:45 16:03	07:54 17:08	08:59 (C13) 18:09	06:45 20:14	06:22 21:16	05:11 22:04	04:27 22:01	04:41 21:06	05:35 19:47	06:37 18:27	07:38 16:15	08:40 (C13) 15:38
12	08:44 16:05	07:52 17:10	08:58 (C13) 18:11	06:42 20:16	06:20 21:18	05:08 22:05	04:27 22:00	04:42 21:04	05:37 19:45	06:39 18:25	07:40 16:13	08:42 (C13) 15:38
13	08:43 16:06	07:50 17:12	08:59 (C13) 18:13	06:40 20:18	06:17 21:20	05:06 22:06	04:26 21:59	04:43 21:02	05:39 19:42	06:41 18:22	07:42 16:11	08:47 (C13) 15:38
14	08:42 16:08	07:47 17:14	08:58 (C13) 18:15	06:37 20:20	06:15 21:22	05:04 22:07	04:26 21:58	04:45 20:59	05:41 19:39	06:43 18:20	07:44 16:09	08:48 (C13) 15:38
15	08:41 16:10	07:45 17:17	08:59 (C13) 18:18	06:34 20:22	06:12 21:24	05:03 22:07	04:26 21:57	04:46 20:57	05:43 19:37	06:45 18:17	07:46 16:21	08:49 (C13) 15:38
16	08:40 16:12	07:43 17:19	08:58 (C13) 18:20	06:32 20:24	06:09 21:25	05:01 22:08	04:25 21:55	04:48 20:54	05:45 19:34	06:47 18:14	07:48 16:25	08:50 (C13) 15:38
17	08:39 16:14	07:40 17:21	08:59 (C13) 18:22	06:29 20:26	06:07 21:27	04:59 22:08	04:25 21:54	04:49 20:52	05:47 19:31	06:49 18:10	07:50 16:04	08:51 (C13) 15:38
18	08:37 16:16	07:38 17:23	08:59 (C13) 18:24	06:26 20:28	06:04 21:29	04:57 22:09	04:25 21:52	04:51 20:50	05:49 19:29	06:51 18:09	07:52 16:02	08:52 (C13) 15:38
19	08:36 16:18	07:36 17:26	08:59 (C13) 18:26	06:24 20:30	06:02 21:31	04:55 22:09	04:25 21:51	04:52 20:47	05:51 19:26	06:53 18:07	07:55 16:01	08:53 (C13) 15:38
20	08:35 16:20	07:33 17:28	08:59 (C13) 18:28	06:21 20:33	06:01 21:33	04:54 22:10	04:25 21:49	04:54 20:45	05:53 19:23	06:55 18:04	07:57 16:08	08:54 (C13) 15:39
21	08:33 16:22	07:31 17:30	09:01 (C13) 18:30	06:18 20:35	05:57 21:35	04:52 22:10	04:25 21:48	04:56 20:42	05:55 19:20	06:57 18:02	07:59 16:05	08:55 (C13) 15:39
22	08:32 16:24	07:28 17:32	09:01 (C13) 18:32	06:16 20:37	05:54 21:37	04:50 22:10	04:25 21:46	04:57 20:40	05:57 19:18	06:59 17:59	07:59 16:09	08:56 (C13) 15:39
23	08:30 16:26	07:26 17:34	09:02 (C13) 18:34	06:13 20:39	05:52 21:38	04:48 22:10	04:26 21:45	04:59 20:37	05:59 19:15	07:01 17:57	08:03 16:10	08:57 (C13) 15:40
24	08:29 16:28	07:23 17:37	09:03 (C13) 18:36	06:10 20:41	05:49 21:40	04:47 22:10	04:26 21:43	05:01 20:35	06:01 19:12	07:03 17:55	08:05 16:11	08:58 (C13) 15:41
25	08:27 16:30	07:21 17:39	09:05 (C13) 18:38	06:07 20:43	05:47 21:42	04:45 22:10	04:26 21:41	05:03 20:32	06:03 19:10	07:05 17:52	08:07 16:15	08:59 (C13) 15:41
26	08:26 16:32	07:18 17:41	09:06 (C13) 18:41	06:05 20:45	05:44 21:43	04:44 22:10	04:27 21:39	05:05 20:30	06:05 19:07	07:07 17:50	08:09 16:12	08:59 (C13) 15:42
27	08:24 16:34	07:16 17:43	09:08 (C13) 18:43	06:02 20:47	05:42 21:45	04:42 22:10	04:27 21:38	05:06 20:27	06:07 19:04	07:09 17:47	08:11 16:14	08:59 (C13) 15:43
28	08:22 16:36	07:13 17:45	09:13 (C13) 18:45	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	08:13 16:15	08:59 (C13) 15:44
29	08:20 16:39	07:11 17:46	09:15 (C13) 18:46	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	08:15 16:16	08:59 (C13) 15:45
30	08:18 16:41	07:09 17:51	09:16 (C13) 18:47	05:54 20:53	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 16:17	08:59 (C13) 15:46
31	08:17 16:43	07:09 17:51	09:17 (C13) 18:48	05:51 20:51	05:31 21:51	04:37 22:10	04:27 21:30	05:14 20:17	06:15 18:56	07:20 17:42	08:19 16:18	08:59 (C13) 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	41	969								639	375	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.94	0.94								0.94	0.94	
Wind dir. red.	0.59	0.59								0.59	0.59	
Total reduction	0.07	0.11								0.14	0.05	
Total, real	3	108								92	17	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

SHADOW - Calendar

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

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N NNE ENE E ESE SSE S SSW WSW W WNW NNW Sum
425 448 518 446 469 751 755 902 1,169 1,037 801 535 8,256
Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December				
1	08:50	08:14	15:34 (C3)	07:10	06:48	05:32	04:35	04:29	05:15	06:17	07:17	07:22	08:24			
	15:48	16:45	22	15:56 (C3)	17:47	19:53	20:55	21:52	22:09	21:28	20:14	18:53	16:35	15:44		
2	08:50	08:12	15:34 (C3)	07:08	06:46	05:30	04:34	04:30	05:17	06:19	07:19	07:24	08:26			
	15:49	16:47	22	15:56 (C3)	17:49	19:55	20:57	21:54	22:08	21:25	20:11	18:50	16:33	15:43		
3	08:50	08:10	15:35 (C3)	07:05	06:43	05:27	04:33	04:31	05:19	06:21	07:21	07:27	15:10 (C3)	08:27		
	15:50	16:49	21	15:56 (C3)	17:51	19:57	20:59	21:55	22:08	21:23	20:08	18:48	16:31	10	15:20 (C3)	15:43
4	08:49	08:08	15:36 (C3)	07:03	06:40	05:25	04:32	04:32	05:21	06:23	07:23	07:29	15:09 (C3)	08:29		
	15:51	16:51	20	15:56 (C3)	17:54	19:59	21:01	21:56	22:07	21:21	20:06	18:45	16:29	14	15:23 (C3)	15:42
5	08:49	08:06	15:36 (C3)	07:00	06:38	05:23	04:31	04:33	05:23	06:25	07:25	07:31	15:07 (C3)	08:30		
	15:53	16:54	18	15:54 (C3)	17:56	20:01	21:03	21:58	22:06	21:19	20:03	18:42	16:27	17	15:24 (C3)	15:41
6	08:49	08:04	15:37 (C3)	06:57	06:35	05:21	04:30	04:34	05:25	06:27	07:27	07:33	15:07 (C3)	08:32		
	15:54	16:56	17	15:54 (C3)	17:58	20:03	21:05	21:59	22:06	21:17	20:00	18:40	16:25	18	15:25 (C3)	15:40
7	08:48	08:02	15:39 (C3)	06:55	06:32	05:18	04:29	04:35	05:27	06:29	07:29	07:35	15:05 (C3)	08:33		
	15:56	16:58	14	15:53 (C3)	18:00	20:05	21:07	22:00	22:05	21:15	19:58	18:37	16:22	21	15:26 (C3)	15:40
8	08:47	08:00	15:41 (C3)	06:52	06:30	05:16	04:29	04:36	05:29	06:31	07:31	07:37	15:05 (C3)	08:35		
	15:57	17:00	9	15:50 (C3)	18:02	20:07	21:09	22:01	22:04	21:13	19:55	18:35	16:20	21	15:26 (C3)	15:39
9	08:47	07:58		06:50	06:27	05:14	04:28	04:37	05:31	06:33	07:33	07:40	15:05 (C3)	08:36		
	15:59	17:03		18:04	20:09	21:11	22:02	22:03	21:10	19:52	18:32	16:18	22	15:27 (C3)	15:39	
10	08:46	07:56		06:47	06:24	05:12	04:27	04:39	05:33	06:35	07:35	07:42	15:04 (C3)	08:38		
	16:00	17:05		18:06	20:11	21:13	22:03	22:02	21:08	19:50	18:29	16:16	23	15:27 (C3)	15:38	
11	08:45	07:54		06:44	06:22	05:10	04:27	04:40	05:35	06:37	07:37	07:44	15:05 (C3)	08:39		
	16:02	17:07		18:09	20:13	21:15	22:04	22:01	21:06	19:47	18:27	16:14	23	15:28 (C3)	15:38	
12	08:44	07:51		06:42	06:19	05:08	04:26	04:41	05:37	06:39	07:39	07:46	15:05 (C3)	08:40		
	16:04	17:09		18:11	20:15	21:17	22:05	22:00	21:03	19:44	18:24	16:13	22	15:27 (C3)	15:38	
13	08:43	07:49		06:39	06:17	05:06	04:26	04:43	05:39	06:41	07:42	07:48	15:05 (C3)	08:41		
	16:06	17:12		18:13	20:18	21:19	22:06	21:59	21:01	19:42	18:22	16:11	22	15:27 (C3)	15:37	
14	08:42	07:47		06:36	06:14	05:04	04:25	04:44	05:41	06:43	07:44	07:50	15:06 (C3)	08:42		
	16:07	17:14		18:15	20:20	21:21	22:06	21:58	20:59	19:39	18:19	16:09	21	15:27 (C3)	15:37	
15	08:41	07:45		06:34	06:11	05:02	04:25	04:46	05:43	06:45	07:46	07:52	15:06 (C3)	08:43		
	16:09	17:16		18:17	20:22	21:23	22:07	21:56	20:56	19:36	18:16	16:07	21	15:27 (C3)	15:37	
16	08:40	07:42		06:31	06:09	05:00	04:25	04:47	05:45	06:47	07:48	07:55	15:07 (C3)	08:44		
	16:11	17:18		18:19	20:24	21:25	22:08	21:55	20:54	19:34	18:14	16:05	20	15:27 (C3)	15:37	
17	08:38	07:40		06:28	06:06	04:58	04:25	04:49	05:47	06:49	07:50	07:57	15:08 (C3)	08:45		
	16:13	17:21		18:21	20:26	21:27	22:08	21:54	20:52	19:31	18:11	16:03	18	15:26 (C3)	15:37	
18	08:37	07:38		06:26	06:04	04:56	04:24	04:50	05:49	06:51	07:52	07:59	15:08 (C3)	08:46		
	16:15	17:23		18:23	20:28	21:29	22:09	21:52	20:49	19:28	18:09	16:02	16	15:24 (C3)	15:37	
19	08:36	07:35		06:23	06:01	04:54	04:24	04:52	05:51	06:53	07:54	08:01	15:10 (C3)	08:47		
	16:17	17:25		18:25	20:30	21:31	22:09	21:51	20:47	19:25	18:06	16:00	13	15:23 (C3)	15:38	
20	08:34	07:33		06:20	05:59	04:53	04:25	04:53	05:53	06:55	07:56	08:03	15:11 (C3)	08:48		
	16:19	17:27		18:28	20:32	21:33	22:09	21:49	20:44	19:23	18:04	15:59	10	15:21 (C3)	15:38	
21	08:33	15:38 (C3)	07:30	06:18	05:56	04:51	04:25	04:55	05:55	06:57	07:58	08:05	15:13 (C3)	08:48		
	16:21	5	15:43 (C3)	17:29	18:30	20:34	21:34	22:10	21:48	20:42	19:20	18:01	15:57	6	15:19 (C3)	15:38
22	08:32	15:36 (C3)	07:28	06:15	05:54	04:49	04:25	04:57	05:57	06:59	08:01	08:07				08:49
	16:23	10	15:46 (C3)	17:32	18:32	20:36	21:36	22:10	21:46	20:39	19:17	17:59	15:56			15:39
23	08:30	15:35 (C3)	07:25	06:12	05:51	04:48	04:25	04:59	05:59	07:01	08:03	08:09				08:49
	16:25	13	15:48 (C3)	17:34	18:34	20:38	21:38	22:10	21:44	20:37	19:15	17:56	15:54			15:39
24	08:28	15:34 (C3)	07:23	06:10	05:49	04:46	04:25	05:00	06:01	07:03	08:05	08:11				08:50
	16:27	16	15:50 (C3)	17:36	18:36	20:41	21:40	22:10	21:43	20:34	19:12	17:54	15:53			15:40
25	08:27	15:34 (C3)	07:20	06:07	05:46	04:45	04:26	05:02	06:03	07:05	08:07	08:13				08:50
	16:29	18	15:52 (C3)	17:38	18:38	20:43	21:41	22:10	21:41	20:32	19:09	16:52	15:51			15:41
26	08:25	15:33 (C3)	07:18	06:04	05:44	04:43	04:26	05:04	06:05	07:07	08:09	08:15				08:50
	16:32	20	15:53 (C3)	17:40	18:40	20:45	21:43	22:10	21:39	20:29	19:07	16:49	15:50			15:41
27	08:24	15:33 (C3)	07:15	06:02	05:41	04:42	04:27	05:06	06:07	07:09	08:11	08:17				08:51
	16:34	21	15:54 (C3)	17:43	18:42	20:47	21:45	22:10	21:37	20:27	19:04	16:47	15:49			15:42
28	08:22	15:33 (C3)	07:13	05:59	05:39	04:40	04:27	05:08	06:09	07:11	08:13	08:19				08:51
	16:36	21	15:54 (C3)	17:45	18:44	20:49	21:46	22:10	21:35	20:24	19:01	16:45	15:48			15:43
29	08:20	15:33 (C3)		06:56	05:37	04:39	04:28	05:09	06:11	07:13	08:15	08:20				08:51
	16:38	22	15:55 (C3)		19:46	20:51	21:48	22:09	21:33	20:21	18:58	16:42	15:46			15:44
30	08:18	15:33 (C3)		06:54	05:34	04:38	04:29	05:11	06:13	07:15	08:17	08:22				08:51
	16:40	22	15:55 (C3)		19:48	20:53	21:49	22:09	21:32	20:19	18:56	16:40	15:45			15:45
31	08:16	15:33 (C3)		06:51		04:36		05:13	06:15		07:20					08:51
	16:42	23	15:56 (C3)		19:50	21:51		21:30	20:16		16:38					15:46
Potential sun hours	235	266		366	426	508	529	529	469	385	324	247				216
Total, worst case	191	143											338			
Sun reduction	0.13	0.20											0.08			
Oper. time red.	0.94	0.94											0.94			
Wind dir. red.	0.66	0.66											0.66			
Total reduction	0.08	0.12											0.05			
Total, real	16	18										17				

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

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	Minutes with flicker		

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Malkalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (64)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Masanpurvs - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (192)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:50	08:12 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:46 16:00	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:51 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:05	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:05 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:01 21:25	04:26 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:47	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (46)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:40 15:38
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 22:10	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 22:11	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 22:09	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)	Minutes with flicker	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 5 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (131)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 7 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (87)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Neretas 8 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (90)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51	08:15	07:11	06:49	05:33	04:36	04:30	05:16	06:17	07:17	07:23	08:24
	15:48	16:45	17:48	19:53	20:56	21:53	22:09	21:28	20:14	18:54	16:36	15:45
2	08:51	08:13	07:08	06:46	05:30	04:35	04:31	05:18	06:19	07:19	07:25	08:26
	15:49	16:48	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	16:29	15:42
5	08:49	08:07	07:01	06:38	05:24	04:32	04:34	05:23	06:25	07:26	07:31	08:31
	15:53	16:54	17:56	20:01	21:04	21:58	22:07	21:20	20:04	18:43	16:27	15:42
6	08:49	08:05	06:58	06:36	05:21	04:31	04:35	05:25	06:27	07:28	07:34	08:32
	15:55	16:56	17:58	20:03	21:06	21:59	22:06	21:17	20:01	18:40	16:25	15:41
7	08:48	08:03	06:55	06:33	05:19	04:30	04:36	05:27	06:29	07:30	07:36	08:34
	15:56	16:59	18:01	20:06	21:08	22:00	22:05	21:15	19:58	18:38	16:23	15:40
8	08:48	08:01	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:32	07:38	08:35
	15:58	17:01	18:03	20:08	21:10	22:01	22:04	21:13	19:56	18:35	16:21	15:40
9	08:47	07:58	06:50	06:28	05:15	04:29	04:38	05:31	06:33	07:34	07:40	08:37
	16:00	17:03	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:33	16:19	15:39
10	08:46	07:56	06:48	06:25	05:13	04:28	04:39	05:33	06:35	07:36	07:42	08:38
	16:01	17:05	18:07	20:12	21:14	22:03	22:02	21:09	19:50	18:30	16:17	15:39
11	08:45	07:54	06:45	06:22	05:11	04:27	04:41	05:35	06:37	07:38	07:44	08:39
	16:03	17:08	18:09	20:14	21:16	22:04	22:01	21:06	19:48	18:27	16:15	15:39
12	08:44	07:52	06:42	06:20	05:09	04:27	04:42	05:37	06:39	07:40	07:47	08:40
	16:05	17:10	18:11	20:16	21:18	22:05	22:00	21:04	19:45	18:25	16:13	15:38
13	08:43	07:50	06:40	06:17	05:07	04:26	04:43	05:39	06:41	07:42	07:49	08:42
	16:06	17:12	18:13	20:18	21:20	22:06	21:59	21:02	19:42	18:22	16:11	15:38
14	08:42	07:47	06:37	06:15	05:05	04:26	04:45	05:41	06:43	07:44	07:51	08:43
	16:08	17:14	18:15	20:20	21:22	22:07	21:58	20:59	19:39	18:20	16:09	15:38
15	08:41	07:45	06:34	06:12	05:03	04:26	04:46	05:43	06:45	07:46	07:53	08:44
	16:10	17:17	18:18	20:22	21:24	22:07	21:57	20:57	19:37	18:17	16:08	15:38
16	08:40	07:43	06:32	06:09	05:01	04:26	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	18:14	16:06	15:38
17	08:39	07:40	06:29	06:07	04:59	04:25	04:49	05:47	06:49	07:50	07:57	08:46
	16:14	17:21	18:22	20:26	21:27	22:09	21:54	20:52	19:31	18:12	16:04	15:38
18	08:38	07:38	06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:53	07:59	08:46
	16:16	17:23	18:24	20:28	21:29	22:09	21:53	20:50	19:29	18:09	16:03	15:38
19	08:36	07:36	06:24	06:02	04:55	04:25	04:53	05:51	06:53	07:55	08:01	08:47
	16:18	17:26	18:26	20:31	21:31	22:09	21:51	20:47	19:26	18:07	16:01	15:38
20	08:35	07:33	06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:03	08:48
	16:20	17:28	18:28	20:33	21:33	22:10	21:50	20:45	19:23	18:04	15:59	15:39
21	08:33	07:31	06:18	05:57	04:52	04:25	04:56	05:55	06:57	07:59	08:05	08:49
	16:22	17:30	18:30	20:35	21:35	22:10	21:48	20:42	19:21	18:02	15:58	15:39
22	08:32	07:28	06:16	05:54	04:50	04:26	04:58	05:57	06:59	08:01	08:07	08:49
	16:24	17:32	18:32	20:37	21:37	22:10	21:46	20:40	19:18	18:00	15:56	15:40
23	08:30	07:26	06:13	05:52	04:48	04:26	04:59	05:59	07:01	08:03	08:09	08:50
	16:26	17:34	18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:55	15:40
24	08:29	07:23	06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:11	08:50
	16:28	17:37	18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:55	15:53	15:41
25	08:27	07:21	06:08	05:47	04:45	04:26	05:03	06:03	07:05	07:07	08:13	08:50
	16:30	17:39	18:39	20:43	21:42	22:10	21:41	20:32	19:10	16:52	15:52	15:41
26	08:26	07:18	06:05	05:44	04:44	04:27	05:05	06:05	07:07	07:10	08:15	08:51
	16:32	17:41	18:41	20:45	21:43	22:10	21:39	20:30	19:07	16:50	15:51	15:42
27	08:24	07:16	06:02	05:42	04:42	04:27	05:06	06:07	07:09	07:12	08:17	08:51
	16:34	17:43	18:43	20:47	21:45	22:10	21:38	20:27	19:04	16:48	15:49	15:43
28	08:22	07:13	06:00	05:40	04:41	04:28	05:08	06:09	07:11	07:14	08:19	08:51
	16:37	17:45	18:45	20:49	21:47	22:10	21:36	20:24	19:02	16:45	15:48	15:44
29	08:20		06:57	05:37	04:40	04:29	05:10	06:11	07:13	07:16	08:21	08:51
	16:39		19:47	20:51	21:48	22:10	21:34	20:22	18:59	16:43	15:47	15:45
30	08:19		06:54	05:35	04:38	04:29	05:12	06:13	07:15	07:18	08:23	08:51
	16:41		19:49	20:53	21:50	22:09	21:32	20:19	18:56	16:41	15:46	15:46
31	08:17		06:52		04:37		05:14	06:15		07:20		08:51
	16:43		19:51		21:51		21:30	20:17		16:38		15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Nomales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (160)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ogu purvs - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (103)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December	
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:23 16:36	08:24 15:45	
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44	
3	08:50 15:50	08:11 16:49	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43	
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:25 21:02	04:32 21:57	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42	
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41	
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41	
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:36 16:23	08:34 15:40	
8	08:48 15:57	08:00 17:01	06:53 18:02	06:30 20:07	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39	
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39	
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:38	
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38	
12	08:44 16:04	07:52 17:10	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:24	07:46 16:13	08:40 15:38	
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38	
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:26 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37	
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:24	04:25 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:07	08:44 15:37	
16	08:40 16:11	07:43 17:19	06:31 18:19	06:09 20:24	05:00 21:26	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:37	
17	08:39 16:13	07:40 17:21	06:29 18:22	06:07 20:26	04:58 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38	5 11:19 (C17)
18	08:38 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38	6 11:25 (C17)
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:00	08:47 15:38	7 11:26 (C17)
20	08:35 16:19	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38	8 11:27 (C17)
21	08:33 16:21	07:31 17:30	06:18 18:30	05:56 20:35	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39	8 11:28 (C17)
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39	8 11:28 (C17)
23	08:30 16:25	07:26 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:40	8 11:29 (C17)
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40	8 11:29 (C17)
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:42	04:26 22:11	05:02 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41	6 11:28 (C17)
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:51 15:42	5 11:28 (C17)
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	08:51 15:42	3 11:27 (C17)
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:47	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43	
29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:44	
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:51 15:45	
31	08:17 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:17		07:20 16:38		08:51 15:46	
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216	
Total, worst case													72
Sun reduction													0.07
Oper. time red.													0.94
Wind dir. red.													0.62
Total reduction													0.04
Total, real													3

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ozoli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (1)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:28 15:44
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:24 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:28	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:41	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 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 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 20:06	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 20:06	08:07 17:52	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 20:06	08:09 17:50	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 20:06	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	06:10 20:24	07:11 20:06	08:14 17:45	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 20:06	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 20:06	08:18 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:16 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ozolmuiža - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (148)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:46 16:00	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:06	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:05 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	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	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	08:11 17:47	08:17 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	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 21:33	06:11 20:22	07:13 18:59	07:16 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	07:18 17:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ozolsalina - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (106)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:34 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:06	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:21	04:26 22:06	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:29	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:34	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: OŠ ini (kad. apz. 76860060068001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (218)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:16 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:16	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:52 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:40	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: OŠ ini (kad. apz. 76860060068006) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (223)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:16	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:52 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:40	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Paegli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (41)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	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	08:08 17:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Palejas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (188)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	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	04:57 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	06:08 20:43	05:47 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	06:05 20:45	05:45 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:09 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	06:02 20:47	05:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	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	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	06:57 20:51	05:37 21:48	04:40 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	06:54 20:53	05:35 21:50	04:38 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	04:37 21:51	05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Pilskalni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (32)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:41	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:23 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:40	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:24	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:08 16:52	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:16 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales - Shadow Receptor: 1.0 × 1.0
Assumptions for shadow calculations

Azimuth: 0.0° Slope: 90.0° (118)

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	16:36 (C13) 17:00 (C13)	06:49 19:53	05:32 20:55
2	08:50 15:49	08:13 16:47	07:08 17:50	16:36 (C13) 16:58 (C13)	06:46 19:55	05:30 20:57
3	08:50 15:51	08:11 16:50	07:06 17:52	16:38 (C13) 16:58 (C13)	06:43 19:57	05:28 20:59
4	08:50 15:52	08:09 16:52	07:03 17:54	16:39 (C13) 16:56 (C13)	06:41 19:59	05:26 21:01
5	08:49 15:53	08:07 16:54	07:00 17:56	16:40 (C13) 16:54 (C13)	06:38 20:01	05:23 21:04
6	08:49 15:55	08:05 16:56	06:58 17:58	16:44 (C13) 16:51 (C13)	06:35 20:03	05:21 21:06
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	05:19 21:08
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:10	05:17 21:10
9	08:47 15:59	07:58 17:03	06:50 18:05	07:21 (C8) 07:30 (C8)	06:27 20:10	05:15 21:12
10	08:46 16:01	07:56 17:05	06:47 18:07	07:18 (C8) 07:33 (C8)	06:25 20:12	05:12 21:14
11	08:45 16:03	07:54 17:07	06:45 18:09	07:15 (C8) 07:34 (C8)	06:22 20:14	05:10 21:16
12	08:44 16:04	07:52 17:10	06:42 18:11	07:13 (C8) 07:35 (C8)	06:20 20:16	05:08 21:18
13	08:43 16:06	07:49 17:12	06:39 18:13	07:12 (C8) 07:37 (C8)	06:17 20:18	05:06 21:20
14	08:42 16:08	07:47 17:14	06:37 18:15	07:11 (C8) 07:37 (C8)	06:14 20:20	05:04 21:22
15	08:41 16:10	07:45 17:16	06:34 18:17	07:10 (C8) 07:37 (C8)	06:12 20:22	05:02 21:23
16	08:40 16:12	07:42 17:19	06:31 18:19	07:10 (C8) 07:38 (C8)	06:09 20:24	05:00 21:25
17	08:39 16:14	07:40 17:21	06:29 18:22	07:09 (C8) 07:37 (C8)	06:07 20:26	04:59 21:27
18	08:37 16:16	07:38 17:23	06:26 18:24	07:08 (C8) 07:37 (C8)	06:04 20:28	04:57 21:29
19	08:36 16:18	07:35 17:25	06:23 18:26	07:09 (C8) 07:37 (C8)	06:02 20:30	04:55 21:31
20	08:35 16:20	07:33 17:28	06:21 18:28	07:09 (C8) 07:36 (C8)	05:59 20:32	04:53 21:33
21	08:33 16:22	07:31 17:30	06:18 18:30	07:09 (C8) 07:35 (C8)	05:57 20:35	04:52 21:35
22	08:32 16:24	07:28 17:32	06:15 18:32	07:09 (C8) 07:33 (C8)	05:54 20:37	04:50 21:36
23	08:30 16:26	07:26 17:34	06:13 18:34	07:10 (C8) 07:33 (C8)	05:52 20:39	04:48 21:38
24	08:29 16:28	07:23 17:36	06:10 18:36	07:11 (C8) 07:30 (C8)	05:49 20:41	04:47 21:40
25	08:27 16:30	07:21 17:39	06:07 18:38	07:13 (C8) 07:28 (C8)	05:47 20:43	04:45 21:42
26	08:25 16:32	07:18 17:41	06:05 18:40	07:16 (C8) 07:25 (C8)	05:44 20:45	04:44 21:43
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:42 21:45
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:46	04:41 21:46
29	08:20 16:38	07:11 17:47	05:57 19:47	05:37 20:51	04:39 21:48	04:39 21:48
30	08:18 16:41	07:09 17:49	05:54 19:49	05:35 20:53	04:38 21:50	04:38 21:50
31	08:16 16:43	07:07 17:51	05:51 19:51	05:33 20:51	04:37 21:51	04:37 21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		541	503	494	58	993
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.64	0.63	0.66	0.67	0.67
Total reduction		0.12	0.24	0.31	0.35	0.35
Total, real		65	123	152	21	349

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (118)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July				August				September				October				November				December	
1	04:30		05:33 (C4)	05:16				06:17		06:55 (C6)	07:17		07:52 (C8)	07:22		07:56 (C10)	08:24					
	22:09	34	06:07 (C4)	21:28				20:14	5	07:00 (C6)	18:53	24	08:16 (C8)	16:36	18	08:14 (C10)	15:45					
2	04:31		05:33 (C4)	05:17				06:19			07:19		07:53 (C8)	07:25		07:58 (C10)	08:26					
	22:08	34	06:07 (C4)	21:26				20:11			18:51	21	08:14 (C8)	16:34	14	08:12 (C10)	15:44					
3	04:32		05:34 (C4)	05:19				06:21			07:21		07:55 (C8)	07:27		08:01 (C10)	08:27					
	22:08	33	06:07 (C4)	21:24				20:09			18:48	17	08:12 (C8)	16:31	9	08:10 (C10)	15:43					
4	04:32		05:35 (C4)	05:21				06:23			07:23		07:57 (C8)	07:29			08:29					
	22:07	32	06:07 (C4)	21:22				20:06			18:45	12	08:09 (C8)	16:29			15:42					
5	04:33		05:36 (C4)	05:23				06:25			07:25			07:31			08:31					
	22:07	30	06:06 (C4)	21:19				20:03			18:43			16:27			15:41					
6	04:35		05:36 (C4)	05:25				06:27			07:27			07:33			08:32					
	22:06	30	06:06 (C4)	21:17				20:01			18:40			16:25			15:41					
7	04:36		05:37 (C4)	05:27				06:29			07:29			07:35			08:34					
	22:05	29	06:06 (C4)	21:15				19:58			18:38			16:23			15:40					
8	04:37		05:38 (C4)	05:29				06:31			07:31		17:17 (C13)	07:38			08:35					
	22:04	27	06:05 (C4)	21:13				19:55			18:35	11	17:28 (C13)	16:21			15:40					
9	04:38		05:39 (C4)	05:31				06:33			07:34		17:14 (C13)	07:40			08:36					
	22:03	25	06:04 (C4)	21:11				19:53			18:32	16	17:30 (C13)	16:19			15:39					
10	04:39		05:40 (C4)	05:33			07:01 (C6)	06:35			07:36		17:13 (C13)	07:42			08:38					
	22:02	23	06:03 (C4)	21:08	1	07:02 (C6)	19:50				18:30	19	17:32 (C13)	16:17			15:39					
11	04:41		05:41 (C4)	05:35			06:56 (C6)	06:37			07:38		17:11 (C13)	07:44			08:39					
	22:01	21	06:02 (C4)	21:06	12	07:08 (C6)	19:47				18:27	21	17:32 (C13)	16:15			15:38					
12	04:42		05:42 (C4)	05:37			06:53 (C6)	06:39			07:40		17:10 (C13)	07:46			08:40					
	22:00	19	06:01 (C4)	21:04	17	07:10 (C6)	19:45				18:25	23	17:33 (C13)	16:13			15:38					
13	04:43		05:45 (C4)	05:39			06:52 (C6)	06:41			07:42		17:09 (C13)	07:48			08:41					
	21:59	15	06:00 (C4)	21:01	20	07:12 (C6)	19:42				18:22	24	17:33 (C13)	16:11			15:38					
14	04:45		05:47 (C4)	05:41			06:51 (C6)	06:43			07:44		17:08 (C13)	07:51			08:43					
	21:58	10	05:57 (C4)	20:59	22	07:13 (C6)	19:39				18:19	25	17:33 (C13)	16:09			15:38					
15	04:46			05:43			06:50 (C6)	06:45			07:46		17:08 (C13)	07:53			08:44					
	21:56			20:57	24	07:14 (C6)	19:37				18:17	24	17:32 (C13)	16:07			15:38					
16	04:48			05:45			06:49 (C6)	06:47			07:48		17:08 (C13)	07:55			08:45					
	21:55			20:54	26	07:15 (C6)	19:34				18:14	25	17:33 (C13)	16:06			15:38					
17	04:49			05:47			06:47 (C6)	06:49		08:06 (C8)	07:50		17:08 (C13)	07:57			08:45					
	21:54			20:52	27	07:14 (C6)	19:31		6	08:12 (C8)	18:12	24	17:32 (C13)	16:04			15:38					
18	04:51			05:49			06:46 (C6)	06:51			07:52		09:00 (C10)	07:59			08:46					
	21:52			20:49	29	07:15 (C6)	19:28		14	08:16 (C8)	18:09	35	17:31 (C13)	16:02			15:38					
19	04:52			05:51			06:46 (C6)	06:53		07:58 (C8)	07:54		08:58 (C10)	08:01			08:47					
	21:51			20:47	29	07:15 (C6)	19:26		19	08:17 (C8)	18:07	36	17:30 (C13)	16:01			15:38					
20	04:54			05:53			06:45 (C6)	06:55		07:56 (C8)	07:57		08:57 (C10)	08:03			08:48					
	21:49			20:44	30	07:15 (C6)	19:23		22	08:18 (C8)	18:04	38	17:30 (C13)	15:59			15:38					
21	04:56			05:55			06:45 (C6)	06:57		07:55 (C8)	07:59		08:55 (C10)	08:05			08:48					
	21:48			20:42	30	07:15 (C6)	19:20		24	08:19 (C8)	18:02	38	17:28 (C13)	15:57			15:39					
22	04:57			05:57			06:45 (C6)	06:59		07:54 (C8)	08:01		08:54 (C10)	08:07			08:49					
	21:46			20:40	30	07:15 (C6)	19:18		25	08:19 (C8)	17:59	36	17:26 (C13)	15:56			15:39					
23	04:59			05:59			06:45 (C6)	07:01		07:53 (C8)	08:03		08:54 (C10)	08:09			08:49					
	21:44			20:37	30	07:15 (C6)	19:15		26	08:19 (C8)	17:57	31	17:23 (C13)	15:55			15:40					
24	05:01			06:01			06:45 (C6)	07:03		07:52 (C8)	08:05		08:53 (C10)	08:11			08:50					
	21:43			20:34	30	07:15 (C6)	19:12		28	08:20 (C8)	17:54	24	09:17 (C10)	15:53			15:40					
25	05:03			06:03			06:44 (C6)	07:05		07:51 (C8)	07:07		07:53 (C10)	08:13			08:50					
	21:41			20:32	29	07:13 (C6)	19:10		28	08:19 (C8)	16:52	24	08:17 (C10)	15:52			15:41					
26	05:04			06:05			06:45 (C6)	07:07		07:51 (C8)	07:09		07:53 (C10)	08:15			08:50					
	21:39			20:29	27	07:12 (C6)	19:07		28	08:19 (C8)	16:50	25	08:18 (C10)	15:51			15:42					
27	05:06			06:07			06:45 (C6)	07:09		07:51 (C8)	07:12		07:53 (C10)	08:17			08:51					
	21:37			20:27	26	07:11 (C6)	19:04		28	08:19 (C8)	16:47	24	08:17 (C10)	15:49			15:43					
28	05:08			06:09			06:46 (C6)	07:11		07:51 (C8)	07:14		07:53 (C10)	08:19			08:51					
	21:36			20:24	24	07:10 (C6)	19:02		27	08:18 (C8)	16:45	23	08:16 (C10)	15:48			15:44					
29	05:10			06:11			06:47 (C6)	07:13		07:52 (C8)	07:16		07:54 (C10)	08:21			08:51					
	21:34			20:22	22	07:09 (C6)	18:59		26	08:18 (C8)	16:43	23	08:17 (C10)	15:47			15:44					
30	05:12			06:13			06:49 (C6)	07:15		07:52 (C8)	07:18		07:54 (C10)	08:22			08:51					
	21:32			20:19	18	07:07 (C6)	18:56		25	08:17 (C8)	16:40	21	08:15 (C10)	15:46			15:45					
31	05:14			06:15			07:05 (C6)				07:20		07:55 (C10)				08:51					
	21:30			20:16	14	07:05 (C6)					16:38	19	08:14 (C10)				15:47					
Potential sun hours	529			469				385			324		247				216					
Total, worst case		362			517				331		683			41								
Sun reduction		0.49			0.50				0.43		0.26			0.08								
Oper. time red.		0.94			0.94				0.94		0.94			0.94								
Wind dir. red.		0.67			0.66				0.62		0.64			0.62								
Total reduction		0.31			0.31				0.25		0.16			0.05								
Total, real		112			158				82		106			2								

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (117)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:47	16:35 (C13) 19:53	06:49 20:55	05:32 9 06:50 (C6)
2	08:50 15:49	08:13 16:47	07:08 17:50	16:35 (C13) 19:55	06:46 20:57	04:36 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	16:37 (C13) 19:57	06:43 20:59	04:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	16:38 (C13) 19:59	06:41 21:01	04:33 21:56
5	08:49 15:53	08:07 16:54	07:00 17:56	16:40 (C13) 20:01	06:38 21:04	04:32 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	16:51 (C13) 20:03	06:35 21:06	04:31 21:59
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00
8	08:47 15:58	08:00 17:01	08:30 (C10) 18:03	06:53 20:07	06:30 21:10	04:29 22:01
9	08:47 15:59	07:58 17:03	08:28 (C10) 18:05	06:50 20:10	07:21 (C8) 21:12	04:28 22:02
10	08:46 16:01	07:56 17:05	08:26 (C10) 18:07	06:47 20:12	07:17 (C8) 21:14	04:28 22:03
11	08:45 16:03	07:54 17:07	08:25 (C10) 18:09	06:45 20:14	07:15 (C8) 21:16	04:27 22:04
12	08:44 16:04	07:52 17:10	08:24 (C10) 18:11	06:42 20:16	07:13 (C8) 21:18	04:27 22:05
13	08:43 16:06	07:49 17:12	08:24 (C10) 18:13	06:39 20:18	07:13 (C8) 21:20	04:26 22:06
14	08:42 16:08	07:47 17:14	08:23 (C10) 18:15	06:37 20:20	07:11 (C8) 21:22	04:26 22:07
15	08:41 16:10	07:45 17:16	08:23 (C10) 18:17	06:34 20:22	07:10 (C8) 21:23	04:26 22:07
16	08:40 16:12	07:42 17:19	08:23 (C10) 18:19	06:31 20:24	07:10 (C8) 21:25	04:25 22:08
17	08:39 16:14	07:40 17:21	08:23 (C10) 18:22	06:29 20:26	07:11 (C6) 21:27	04:25 22:08
18	08:37 16:16	07:38 17:23	08:23 (C10) 18:24	06:26 20:28	07:12 (C6) 21:29	04:25 22:09
19	08:36 16:18	07:35 17:25	08:24 (C10) 18:26	06:02 20:30	07:12 (C6) 21:31	04:25 22:09
20	08:35 16:20	07:33 17:28	08:24 (C10) 18:28	06:21 20:32	07:11 (C6) 21:33	04:25 22:10
21	08:33 16:22	07:31 17:30	08:25 (C10) 18:30	06:18 20:35	07:11 (C6) 21:35	04:25 22:10
22	08:32 16:24	07:28 17:32	08:26 (C10) 18:32	06:15 20:37	07:12 (C6) 21:36	04:25 22:10
23	08:30 16:26	07:26 17:34	08:28 (C10) 18:34	06:13 20:39	07:11 (C6) 21:38	04:26 22:10
24	08:29 16:28	07:23 17:36	08:30 (C10) 18:36	06:10 20:41	07:10 (C6) 21:40	04:26 22:10
25	08:27 16:30	07:21 17:39	16:34 (C13) 18:38	06:07 20:43	07:12 (C6) 21:42	04:26 22:10
26	08:25 16:32	07:18 17:41	16:35 (C13) 18:40	05:44 20:45	07:10 (C6) 21:43	04:27 22:10
27	08:24 16:34	07:16 17:43	16:34 (C13) 18:42	05:42 20:47	07:08 (C6) 21:45	04:27 22:10
28	08:22 16:36	07:13 17:45	16:35 (C13) 18:45	05:39 20:49	07:06 (C6) 21:46	04:28 22:10
29	08:20 16:38		16:59 (C13) 19:47	05:37 20:51	07:04 (C6) 21:48	04:28 22:10
30	08:18 16:41		06:54 19:49	05:35 20:53	07:04 (C6) 21:50	04:29 22:09
31	08:16 16:43		06:51 19:51		07:02 (C6) 21:50	04:29 22:09
Potential sun hours	235	266	366	426	508	529
Total, worst case		553	474	490	112	1114
Sun reduction		0.20	0.41	0.50	0.57	0.56
Oper. time red.		0.94	0.94	0.94	0.94	0.94
Wind dir. red.		0.64	0.63	0.66	0.67	0.67
Total reduction		0.12	0.24	0.31	0.36	0.35
Total, real		66	115	151	40	392

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Pludmales 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (117)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July			August			September			October			November			December		
1	04:30	05:34 (C4)	05:16				06:17			06:53 (C6)	07:17		07:53 (C8)	07:22		07:56 (C10)	08:24	
	22:09	38	06:12 (C4)	21:28			20:14		12	07:05 (C6)	18:53	23	08:16 (C8)	16:36	17	08:13 (C10)	15:45	
2	04:31	05:35 (C4)	05:17				06:19			07:19	18:53		07:53 (C8)	07:25		07:57 (C10)	08:26	
	22:08	37	06:12 (C4)	21:26			20:11			18:51	22	08:15 (C8)	16:34	14	08:11 (C10)	15:44		
3	04:32	05:35 (C4)	05:19				06:21			07:21			07:55 (C8)	07:27		08:01 (C10)	08:27	
	22:08	37	06:12 (C4)	21:24			20:09			18:48	18	08:13 (C8)	16:31	8	08:09 (C10)	15:43		
4	04:32	05:36 (C4)	05:21				06:23			07:23			07:56 (C8)	07:29			08:29	
	22:07	36	06:12 (C4)	21:22			20:06			18:45	14	08:10 (C8)	16:29			15:42		
5	04:33	05:36 (C4)	05:23				06:25			07:25			08:00 (C8)	07:31			08:31	
	22:07	36	06:12 (C4)	21:19			20:03			18:43	6	08:06 (C8)	16:27			15:41		
6	04:35	05:37 (C4)	05:25				06:27			07:27				07:33			08:32	
	22:06	34	06:11 (C4)	21:17			20:01			18:40				16:25			15:41	
7	04:36	05:38 (C4)	05:27				06:29			07:29				07:35			08:34	
	22:05	33	06:11 (C4)	21:15			19:58			18:38				16:23			15:40	
8	04:37	05:38 (C4)	05:29				06:31			07:31			17:17 (C13)	07:38			08:35	
	22:04	33	06:11 (C4)	21:13			19:55			18:35	8	17:25 (C13)	16:21			15:40		
9	04:38	05:39 (C4)	05:31				06:33			07:34			17:13 (C13)	07:40			08:36	
	22:03	31	06:10 (C4)	21:11			19:53			18:32	14	17:27 (C13)	16:19			15:39		
10	04:39	05:40 (C4)	05:33				06:35			07:36			17:12 (C13)	07:42			08:38	
	22:02	29	06:09 (C4)	21:08			19:50			18:30	18	17:30 (C13)	16:17			15:39		
11	04:41	05:41 (C4)	05:35				06:37			07:38			17:10 (C13)	07:44			08:39	
	22:01	28	06:09 (C4)	21:06			19:47			18:27	20	17:30 (C13)	16:15			15:38		
12	04:42	05:41 (C4)	05:37			06:57 (C6)	06:39			07:40			17:09 (C13)	07:46			08:40	
	22:00	27	06:08 (C4)	21:04		12	07:09 (C6)	19:45		18:25	22	17:31 (C13)	16:13			15:38		
13	04:43	05:43 (C4)	05:39			06:55 (C6)	06:41			07:42			17:08 (C13)	07:48			08:41	
	21:59	25	06:08 (C4)	21:01		16	07:11 (C6)	19:42		18:22	23	17:31 (C13)	16:11			15:38		
14	04:45	05:44 (C4)	05:41			06:53 (C6)	06:43			07:44			17:07 (C13)	07:51			08:43	
	21:58	22	06:06 (C4)	20:59		20	07:13 (C6)	19:39		18:19	24	17:31 (C13)	16:09			15:38		
15	04:46	05:46 (C4)	05:43			06:52 (C6)	06:45			07:46			17:07 (C13)	07:53			08:44	
	21:56	18	06:04 (C4)	20:57		22	07:14 (C6)	19:37		18:17	25	17:32 (C13)	16:07			15:38		
16	04:48	05:48 (C4)	05:45			06:51 (C6)	06:47			07:48			17:07 (C13)	07:55			08:45	
	21:55	15	06:03 (C4)	20:54		24	07:15 (C6)	19:34		18:14	24	17:31 (C13)	16:06			15:38		
17	04:49	05:51 (C4)	05:47			06:49 (C6)	06:49			07:50			17:06 (C13)	07:57			08:45	
	21:54	9	06:00 (C4)	20:52		26	07:15 (C6)	19:31		18:12	25	17:31 (C13)	16:04			15:38		
18	04:51		05:49			06:48 (C6)	06:51			08:04 (C8)	07:52		09:00 (C10)	07:59			08:46	
	21:52		20:49			07:15 (C6)	19:28		10	08:14 (C8)	18:09	35	17:30 (C13)	16:02			15:38	
19	04:52		05:51			06:48 (C6)	06:53			08:00 (C8)	07:54		08:58 (C10)	08:01			08:47	
	21:51		20:47			07:16 (C6)	19:26		16	08:16 (C8)	18:07	37	17:29 (C13)	16:01			15:38	
20	04:54		05:53			06:47 (C6)	06:55			07:57 (C8)	07:57		08:57 (C10)	08:03			08:48	
	21:49		20:45			07:16 (C6)	19:23		20	08:17 (C8)	18:04	39	17:29 (C13)	15:59			15:38	
21	04:56		05:55			06:47 (C6)	06:57			07:56 (C8)	07:59		08:55 (C10)	08:05			08:48	
	21:48		20:42			07:16 (C6)	19:20		22	08:18 (C8)	18:02	40	17:27 (C13)	15:57			15:39	
22	04:57		05:57			06:46 (C6)	06:59			07:55 (C8)	08:01		08:54 (C10)	08:07			08:49	
	21:46		20:40			07:16 (C6)	19:18		24	08:19 (C8)	17:59	37	17:25 (C13)	15:56			15:39	
23	04:59		05:59			06:46 (C6)	07:01			07:53 (C8)	08:03		08:54 (C10)	08:09			08:49	
	21:44		20:37			07:16 (C6)	19:15		26	08:19 (C8)	17:57	35	17:24 (C13)	15:55			15:40	
24	05:01		06:01			06:46 (C6)	07:03			07:53 (C8)	08:05		08:53 (C10)	08:11			08:50	
	21:43		20:34			07:16 (C6)	19:12		27	08:20 (C8)	17:54	25	17:18 (C13)	15:53			15:40	
25	05:03		06:03			06:45 (C6)	07:05			07:52 (C8)	07:07		07:52 (C10)	08:13			08:50	
	21:41		20:32			07:14 (C6)	19:10		28	08:20 (C8)	16:52	25	08:17 (C10)	15:52			15:41	
26	05:04		06:05			06:46 (C6)	07:07			07:51 (C8)	07:09		07:53 (C10)	08:15			08:50	
	21:39		20:29			07:14 (C6)	19:07		28	08:19 (C8)	16:50	24	08:17 (C10)	15:51			15:42	
27	05:06		06:07			06:46 (C6)	07:09			07:51 (C8)	07:12		07:53 (C10)	08:17			08:51	
	21:37		20:27			07:13 (C6)	19:04		28	08:19 (C8)	16:47	24	08:17 (C10)	15:49			15:43	
28	05:08		06:09			06:47 (C6)	07:11			07:51 (C8)	07:14		07:53 (C10)	08:19			08:51	
	21:36		20:24			07:12 (C6)	19:02		27	08:18 (C8)	16:45	23	08:16 (C10)	15:48			15:44	
29	05:10		06:11			06:48 (C6)	07:13			07:52 (C8)	07:16		07:54 (C10)	08:21			08:51	
	21:34		20:22			07:11 (C6)	18:59		27	08:19 (C8)	16:43	22	08:16 (C10)	15:47			15:44	
30	05:12		06:13			06:49 (C6)	07:15			07:52 (C8)	07:18		07:54 (C10)	08:22			08:51	
	21:32		20:19			07:09 (C6)	18:56		26	08:18 (C8)	16:40	21	08:15 (C10)	15:46			15:45	
31	05:14		06:15			06:50 (C6)				07:20			07:54 (C10)				08:51	
	21:30		20:16			07:07 (C6)				16:38	20		08:14 (C10)				15:47	
Potential sun hours	529		469				385			324			247				216	
Total, worst case		488		492			321			693				39				
Sun reduction		0.49		0.50			0.43			0.26				0.08				
Oper. time red.		0.94		0.94			0.94			0.94				0.94				
Wind dir. red.		0.67		0.66			0.62			0.64				0.62				
Total reduction		0.31		0.31			0.25			0.16				0.05				
Total, real		151		151			80			108				2				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (52)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
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 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (6)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (53)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:08 17:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Polakas 3 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (14)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	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 16:36	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	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Pumpuri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (199)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Pumpuri (kad. apz. 56960040091) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (76)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Purvini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (20)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:49 19:53	05:32 20:56	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:58	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:50	08:11 16:49	07:06 17:52	06:43 19:57	05:28 21:00	04:33 21:56	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:25 21:02	04:32 21:57	04:32 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:50 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:34 16:25	08:33 15:41
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:02	04:37 22:05	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:10	05:14 21:12	04:28 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:28 22:04	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:02	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:26 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:24	04:25 22:08	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:00 21:26	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:22	06:07 20:26	04:58 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:47 15:38
19	08:36 16:17	07:36 17:25	06:23 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:19	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38
21	08:34 16:21	07:31 17:30	06:18 18:30	05:57 20:35	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:25 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:40
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:42	04:26 22:11	05:02 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:43 21:44	04:26 22:11	05:04 21:40	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:50	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:44
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:23 15:46	08:51 15:45
31	08:17 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:17		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:43
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:24 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:46 16:00	07:58 17:03	06:50 18:05	06:28 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:15	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:05	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:54 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	08:09 17:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	08:11 17:47	08:17 15:50	08:50 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	08:14 17:45	08:18 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:33	06:11 20:22	07:13 18:59	08:16 17:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Rasas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (94)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Rijasvecumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (206)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:47	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:50	07:24 16:33	08:26 15:43
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:42	07:31 16:27	08:31 15:41
6	08:49 15:54	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:22	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:09	04:28 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:20	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:37 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	06:24 20:11	05:12 21:13	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	08:39 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	06:19 20:16	05:08 21:17	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:37
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:25 22:06	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:16	07:53 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:44 15:37
17	08:39 16:13	07:40 17:21	06:28 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:03	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:24 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:25	06:01 20:30	04:54 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:25	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:20 18:28	05:59 20:32	04:53 21:33	04:24 22:10	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:55	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:56	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:20 17:38	06:07 18:38	05:46 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:40	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:50 15:41
27	08:24 16:34	07:15 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:07 21:35	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:21	07:13 18:58	07:16 16:42	08:20 15:46	08:51 15:44
30	08:18 16:40		06:54 19:48	05:34 20:53	04:38 21:49	04:28 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Robež nieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (220)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:49 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:16 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:18 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:13 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:05	07:51 17:10	06:42 18:11	06:20 20:16	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:01 21:25	04:26 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:58	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:57 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:52 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:23 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:14 16:45	08:18 15:48	08:50 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Rudzati - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (139)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August		September	October	November	December		
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	07:14 (C14) 07:26 (C14)	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:04 (C14) 07:26 (C14)	07:17 18:54	07:23 16:36	08:24 15:45	
2	08:50 15:50	08:13 16:48	07:08 17:50		06:46 19:55	07:11 (C14) 07:27 (C14)	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:03 (C14) 07:26 (C14)	07:19 18:51	07:25 16:34	08:26 15:44	
3	08:50 15:51	08:11 16:50	07:06 17:52		06:44 19:57	07:09 (C14) 07:29 (C14)	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:02 (C14) 07:26 (C14)	07:21 18:48	07:27 16:32	08:28 15:43	
4	08:50 15:52	08:09 16:52	07:03 17:54		06:41 19:59	07:07 (C14) 07:29 (C14)	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:02 (C14) 07:26 (C14)	07:23 18:46	07:29 16:30	08:29 15:43	
5	08:49 15:54	08:07 16:54	07:01 17:56		06:38 20:01	07:05 (C14) 07:29 (C14)	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:01 (C14) 07:26 (C14)	07:26 18:43	07:31 16:27	08:31 15:42	
6	08:49 15:55	08:05 16:57	06:58 17:58		06:36 20:03	07:05 (C14) 07:29 (C14)	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:01 (C14) 07:26 (C14)	07:28 18:40	07:33 16:25	08:32 15:41	
7	08:48 15:57	08:03 16:59	06:55 18:01		06:33 20:06	07:04 (C14) 07:29 (C14)	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:01 (C14) 07:24 (C14)	07:30 18:38	07:36 16:23	08:34 15:40	
8	08:48 15:58	08:01 17:01	06:53 18:03		06:30 20:08	07:05 (C14) 07:29 (C14)	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:01 (C14) 07:23 (C14)	07:32 18:35	07:38 16:21	08:35 15:40	
9	08:47 16:00	07:58 17:03	06:50 18:05		06:28 20:10	07:04 (C14) 07:28 (C14)	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:02 (C14) 07:22 (C14)	07:34 18:33	07:40 16:19	08:37 15:39	
10	08:46 16:01	07:56 17:06	06:48 18:07		06:25 20:12	07:04 (C14) 07:27 (C14)	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:04 (C14) 07:20 (C14)	07:36 18:30	07:42 16:17	08:38 15:39	
11	08:45 16:03	07:54 17:08	06:45 18:09		06:22 20:14	07:05 (C14) 07:27 (C14)	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:06 (C14) 07:18 (C14)	07:38 18:27	07:44 16:15	08:39 15:39	
12	08:44 16:05	07:52 17:10	06:42 18:11		06:20 20:16	07:05 (C14) 07:25 (C14)	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:08 (C14) 07:16 (C14)	07:40 18:25	07:46 16:13	08:40 15:38	
13	08:43 16:06	07:50 17:12	06:40 18:13		06:17 20:18	07:06 (C14) 07:24 (C14)	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38	08:42 15:38	
14	08:42 16:08	07:47 17:15	06:37 18:16		06:15 20:20	07:07 (C14) 07:22 (C14)	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38	08:43 15:38	
15	08:41 16:10	07:45 17:17	06:34 18:18		06:12 20:22	07:09 (C14) 07:20 (C14)	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38	08:44 15:38	
16	08:40 16:12	07:43 17:19	06:32 18:20		06:09 20:24	07:10 (C14) 07:25 (C14)	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38	08:45 15:38	
17	08:39 16:14	07:40 17:21	06:29 18:22		06:07 20:26	07:11 (C14) 07:26 (C14)	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38	08:46 15:38	
18	08:38 16:16	07:38 17:23	06:26 18:24		06:04 20:28	07:12 (C14) 07:27 (C14)	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38	08:46 15:38	
19	08:36 16:18	07:36 17:26	06:24 18:26		06:02 20:31	07:13 (C14) 07:28 (C14)	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38	08:47 15:38	
20	08:35 16:20	07:33 17:28	06:21 18:28		05:59 20:33	07:14 (C14) 07:29 (C14)	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39	08:48 15:39	
21	08:33 16:22	07:31 17:30	06:18 18:30		05:57 20:35	07:15 (C14) 07:30 (C14)	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39	08:48 15:39	
22	08:32 16:24	07:28 17:32	06:16 18:32		05:54 20:37	07:16 (C14) 07:31 (C14)	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40	08:49 15:40	
23	08:30 16:26	07:26 17:35	06:13 18:34		05:52 20:39	07:17 (C14) 07:32 (C14)	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40	08:50 15:40	
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	07:18 (C14) 07:33 (C14)	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41	08:50 15:41	
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	07:19 (C14) 07:34 (C14)	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41	08:50 15:41	
26	08:26 16:32	07:18 17:41	06:05 18:41		05:45 20:45	07:20 (C14) 07:35 (C14)	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42	08:51 15:42	
27	08:24 16:34	07:16 17:43	06:02 18:43		05:42 20:47	07:21 (C14) 07:36 (C14)	04:42 21:45	04:28 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:50	08:51 15:43	08:51 15:43	
28	08:22 16:37	07:13 17:45	06:00 18:45		05:40 20:49	07:22 (C14) 07:37 (C14)	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	11 07:10 (C14) 07:23 (C14)	07:11 19:02	07:14 18:49	08:19 15:44	08:51 15:44	
29	08:20 16:39	07:11 17:47	05:57 18:47		05:37 20:51	07:23 (C14) 07:38 (C14)	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	15 07:08 (C14) 07:24 (C14)	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45	
30	08:19 16:41	07:10 17:49	05:54 18:49		05:35 20:53	07:24 (C14) 07:39 (C14)	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	18 07:06 (C14) 07:24 (C14)	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46	
31	08:17 16:43	07:08 19:51	05:52 19:51	7 07:17 (C14) 07:24 (C14)	04:37 21:51	07:25 (C14) 07:40 (C14)	04:37 21:51	05:14 21:30	06:15 20:17	20 07:05 (C14) 07:25 (C14)			07:20 16:38	08:22 15:47	08:51 15:47	
Potential sun hours	235	266	366		426		508	528	529	469		385		324	247	216
Total, worst case			7			300				64		244				
Sun reduction			0.41			0.50				0.50		0.43				
Oper. time red.			0.94			0.94				0.94		0.94				
Wind dir. red.			0.66			0.66				0.66		0.66				
Total reduction			0.26			0.31				0.31		0.26				
Total, real			2			93				20		65				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Raceni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (184)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51		14:16 (C13)	08:15		14:20 (C13)	07:11		06:49				05:32		04:36			
	15:48	24	14:40 (C13)	16:45	36	14:56 (C13)	17:47		19:53				20:55		21:53			
2	08:50		14:17 (C13)	08:13		14:21 (C13)	07:08		06:46				05:30		04:35			
	15:49	24	14:41 (C13)	16:47	35	14:56 (C13)	17:50		19:55				20:57		21:54			
3	08:50		14:16 (C13)	08:11		14:22 (C13)	07:06		06:43				05:28		04:34			
	15:51	26	14:42 (C13)	16:50	33	14:55 (C13)	17:52		19:57				20:59		21:55			
4	08:50		14:16 (C13)	08:09		14:24 (C13)	07:03		06:41				05:26		04:33			
	15:52	26	14:42 (C13)	16:52	31	14:55 (C13)	17:54		19:59				21:02		21:57			
5	08:49		14:16 (C13)	08:07		14:25 (C13)	07:00		06:38				05:23		04:32			
	15:53	28	14:44 (C13)	16:54	29	14:54 (C13)	17:56		20:01				21:04		21:58			
6	08:49		14:16 (C13)	08:05		14:26 (C13)	06:58		06:35				05:21		04:31			
	15:55	29	14:45 (C13)	16:56	26	14:52 (C13)	17:58		20:03				21:06		21:59			
7	08:48		14:16 (C13)	08:03		14:28 (C13)	06:55		06:33				05:19		04:30			
	15:56	29	14:45 (C13)	16:59	23	14:51 (C13)	18:00		20:05				21:08		22:00			
8	08:47		14:16 (C13)	08:00		14:31 (C13)	06:53		06:30				05:17		04:29			
	15:58	30	14:46 (C13)	17:01	18	14:49 (C13)	18:03		20:07				21:10		22:01			
9	08:47		14:16 (C13)	07:58		14:34 (C13)	06:50		06:27			06:53 (C4)	05:15		04:28			
	15:59	31	14:47 (C13)	17:03	11	14:45 (C13)	18:05		20:10		8	07:01 (C4)	21:12		22:02			
10	08:46		14:16 (C13)	07:56			06:47		06:25			06:50 (C4)	05:13		04:28			
	16:01	32	14:48 (C13)	17:05			18:07		20:12		13	07:03 (C4)	21:14		22:03			
11	08:45		14:16 (C13)	07:54			06:45		06:22			06:48 (C4)	05:10		04:27			
	16:03	33	14:49 (C13)	17:08			18:09		20:14		17	07:05 (C4)	21:16		22:04			
12	08:44		14:15 (C13)	07:52			06:42		06:20			06:46 (C4)	05:08		04:27			
	16:04	34	14:49 (C13)	17:10			18:11		20:16		19	07:05 (C4)	21:18		22:05			
13	08:43		14:15 (C13)	07:49			06:39		06:17			06:45 (C4)	05:06		04:26			
	16:06	35	14:50 (C13)	17:12			18:13		20:18		21	07:06 (C4)	21:20		22:06			
14	08:42		14:16 (C13)	07:47			06:37		06:14			06:44 (C4)	05:04		04:26			
	16:08	35	14:51 (C13)	17:14			18:15		20:20		22	07:06 (C4)	21:22		22:07			
15	08:41		14:15 (C13)	07:45			06:34		06:12			06:44 (C4)	05:02		04:26			
	16:10	37	14:52 (C13)	17:17			18:17		20:22		23	07:07 (C4)	21:24		22:07			
16	08:40		14:15 (C13)	07:43			06:31		06:09			06:43 (C4)	05:01		04:25			
	16:12	38	14:53 (C13)	17:19			18:20		20:24		23	07:06 (C4)	21:25		22:08			
17	08:39		14:15 (C13)	07:40			06:29		06:07			06:43 (C4)	04:59		04:25			
	16:14	38	14:53 (C13)	17:21			18:22		20:26		23	07:06 (C4)	21:27		22:08			
18	08:37		14:16 (C13)	07:38			06:26		06:04			06:42 (C4)	04:57		04:25			
	16:16	38	14:54 (C13)	17:23			18:24		20:28		23	07:05 (C4)	21:29		22:09			
19	08:36		14:15 (C13)	07:35			06:23		06:02			06:43 (C4)	04:55		04:25			
	16:18	39	14:54 (C13)	17:25			18:26		20:30		22	07:05 (C4)	21:31		22:09			
20	08:35		14:16 (C13)	07:33			06:21		05:59			06:42 (C4)	04:53		04:25			
	16:20	39	14:55 (C13)	17:28			18:28		20:32		22	07:04 (C4)	21:33		22:10			
21	08:33		14:16 (C13)	07:31			06:18		05:57			06:43 (C4)	04:52		04:25			
	16:22	40	14:56 (C13)	17:30			18:30		20:35		20	07:03 (C4)	21:35		22:10			
22	08:32		14:16 (C13)	07:28			06:15		05:54			06:45 (C4)	04:50		04:25			
	16:24	40	14:56 (C13)	17:32			18:32		20:37		17	07:02 (C4)	21:36		22:10			
23	08:30		14:16 (C13)	07:26			06:13		05:52			06:45 (C4)	04:48		04:26			
	16:26	40	14:56 (C13)	17:34			18:34		20:39		15	07:00 (C4)	21:38		22:10			
24	08:29		14:16 (C13)	07:23			06:10		05:49			06:47 (C4)	04:47		04:26			
	16:28	40	14:56 (C13)	17:37			18:36		20:41		11	06:58 (C4)	21:40		22:10			
25	08:27		14:17 (C13)	07:21			06:07		05:47			06:52 (C4)	04:45		04:26			
	16:30	40	14:57 (C13)	17:39			18:38		20:43		2	06:54 (C4)	21:42		22:10			
26	08:25		14:17 (C13)	07:18			06:05		05:44				04:44		04:27			
	16:32	40	14:57 (C13)	17:41			18:40		20:45				21:43		22:10			
27	08:24		14:18 (C13)	07:16			06:02		05:42				04:42		04:27			
	16:34	39	14:57 (C13)	17:43			18:43		20:47				21:45		22:10			
28	08:22		14:18 (C13)	07:13			05:59		05:39				04:41		04:28			
	16:36	39	14:57 (C13)	17:45			18:45		20:49				21:47		22:10			
29	08:20		14:19 (C13)				06:57		05:37				04:39		04:28			
	16:39	38	14:57 (C13)				19:47		20:51				21:48		22:10			
30	08:18		14:19 (C13)				06:54		05:35				04:38		04:29			
	16:41	38	14:57 (C13)				19:49		20:53				21:50		22:09			
31	08:17		14:19 (C13)				06:51						04:37					
	16:43	37	14:56 (C13)				19:51						21:51					
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1076			242					301									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.94			0.94					0.94									
Wind dir. red.	0.66			0.66					0.66									
Total reduction	0.08			0.13					0.31									
Total, real	90			31					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)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Raceni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (184)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September		October	November		December	
1	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (C4) 17 07:04 (C4)	07:17 18:54	07:23 16:36		08:24 15:45	13:58 (C13) 33 14:31 (C13)
2	04:31 22:08	05:17 21:26	06:19 20:11	06:49 (C4) 13 07:02 (C4)	07:19 18:51	07:25 16:34	14:03 (C13) 12 14:15 (C13)	08:26 15:44	13:59 (C13) 32 14:31 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	06:51 (C4) 8 06:59 (C4)	07:21 18:48	07:27 16:31	14:00 (C13) 19 14:19 (C13)	08:27 15:43	13:59 (C13) 31 14:30 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06		07:23 18:46	07:29 16:29	13:58 (C13) 23 14:21 (C13)	08:29 15:42	14:00 (C13) 30 14:30 (C13)
5	04:34 22:07	05:23 21:19	06:25 20:03		07:25 18:43	07:31 16:27	13:56 (C13) 26 14:22 (C13)	08:31 15:42	14:01 (C13) 30 14:31 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01		07:27 18:40	07:33 16:25	13:55 (C13) 29 14:24 (C13)	08:32 15:41	14:02 (C13) 29 14:31 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58		07:29 18:38	07:36 16:23	13:53 (C13) 31 14:24 (C13)	08:34 15:40	14:02 (C13) 28 14:30 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55		07:32 18:35	07:38 16:21	13:53 (C13) 33 14:26 (C13)	08:35 15:40	14:04 (C13) 26 14:30 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:32	07:40 16:19	13:52 (C13) 34 14:26 (C13)	08:37 15:39	14:04 (C13) 26 14:30 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50		07:36 18:30	07:42 16:17	13:51 (C13) 36 14:27 (C13)	08:38 15:39	14:06 (C13) 24 14:30 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47		07:38 18:27	07:44 16:15	13:51 (C13) 37 14:28 (C13)	08:39 15:38	14:06 (C13) 24 14:30 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45		07:40 18:25	07:46 16:13	13:50 (C13) 38 14:28 (C13)	08:40 15:38	14:08 (C13) 22 14:30 (C13)
13	04:43 21:59	05:39 21:01	06:41 19:42		07:42 18:22	07:49 16:11	13:51 (C13) 38 14:29 (C13)	08:42 15:38	14:09 (C13) 21 14:30 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39		07:44 18:19	07:51 16:09	13:50 (C13) 39 14:29 (C13)	08:43 15:38	14:09 (C13) 21 14:30 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17	07:53 16:08	13:50 (C13) 39 14:29 (C13)	08:44 15:38	14:10 (C13) 20 14:30 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34		07:48 18:14	07:55 16:06	13:50 (C13) 40 14:30 (C13)	08:45 15:38	14:11 (C13) 19 14:30 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31		07:50 18:12	07:57 16:04	13:50 (C13) 40 14:30 (C13)	08:45 15:38	14:12 (C13) 18 14:30 (C13)
18	04:51 21:52	05:49 20:49	06:51 19:29	06:56 (C4) 5 07:01 (C4)	07:52 18:09	07:59 16:02	13:50 (C13) 40 14:30 (C13)	08:46 15:38	14:13 (C13) 18 14:31 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	06:52 (C4) 12 07:04 (C4)	07:54 18:07	08:01 16:01	13:51 (C13) 40 14:31 (C13)	08:47 15:38	14:13 (C13) 17 14:30 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	06:50 (C4) 16 07:06 (C4)	07:57 18:04	08:03 15:59	13:51 (C13) 40 14:31 (C13)	08:48 15:39	14:14 (C13) 17 14:31 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	06:49 (C4) 18 07:07 (C4)	07:59 18:02	08:05 15:58	13:51 (C13) 40 14:31 (C13)	08:48 15:39	14:15 (C13) 16 14:31 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	06:48 (C4) 20 07:08 (C4)	08:01 17:59	08:07 15:56	13:52 (C13) 39 14:31 (C13)	08:49 15:39	14:15 (C13) 16 14:31 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	06:47 (C4) 22 07:09 (C4)	08:03 17:57	08:09 15:55	13:52 (C13) 39 14:31 (C13)	08:49 15:40	14:16 (C13) 17 14:33 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	06:46 (C4) 23 07:09 (C4)	08:05 17:55	08:11 15:53	13:53 (C13) 38 14:31 (C13)	08:50 15:40	14:16 (C13) 17 14:33 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	06:46 (C4) 23 07:09 (C4)	07:07 16:52	08:13 15:52	13:53 (C13) 38 14:31 (C13)	08:50 15:41	14:16 (C13) 17 14:33 (C13)
26	05:04 21:39	06:05 20:29	07:07 19:07	06:45 (C4) 23 07:08 (C4)	07:09 16:50	08:15 15:51	13:54 (C13) 37 14:31 (C13)	08:51 15:42	14:16 (C13) 18 14:34 (C13)
27	05:06 21:37	06:07 20:27	07:09 19:04	06:44 (C4) 24 07:08 (C4)	07:09 16:47	08:17 15:49	13:55 (C13) 37 14:32 (C13)	08:51 15:43	14:16 (C13) 19 14:35 (C13)
28	05:08 21:36	06:09 20:24	07:11 19:02	06:44 (C4) 24 07:08 (C4)	07:11 16:45	08:19 15:48	13:56 (C13) 36 14:32 (C13)	08:51 15:44	14:16 (C13) 20 14:36 (C13)
29	05:10 21:34	06:11 20:22	07:13 18:59	06:45 (C4) 22 07:07 (C4)	07:16 16:43	08:21 15:47	13:56 (C13) 35 14:31 (C13)	08:51 15:45	14:16 (C13) 21 14:37 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	06:45 (C4) 21 07:06 (C4)	07:18 16:40	08:22 15:46	13:57 (C13) 34 14:31 (C13)	08:51 15:46	14:17 (C13) 21 14:38 (C13)
31	05:14 21:30	06:15 20:17	07:17 18:54	06:46 (C4) 19 07:05 (C4)	07:20 16:38		14:31 (C13)	08:51 15:47	14:17 (C13) 22 14:39 (C13)
Potential sun hours	529	469	385		324	247		216	
Total, worst case		272	38			1007		690	
Sun reduction		0.50	0.43			0.08		0.07	
Oper. time red.		0.94	0.94			0.94		0.94	
Wind dir. red.		0.66	0.66			0.66		0.66	
Total reduction		0.31	0.27			0.05		0.04	
Total, real		84	10			52		30	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ruki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (177)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:48 19:53	05:32 20:55	04:35 21:53	04:30 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:02	04:32 21:57	04:32 22:07	05:21 21:22	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:04	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:03 16:58	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:36 16:23	08:34 15:40
8	08:48 15:57	08:00 17:01	06:53 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:33 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:10	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:26 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:24	04:25 22:07	04:46 21:57	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:22	06:06 20:26	04:58 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:37
18	08:37 16:15	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:31 17:30	06:18 18:30	05:56 20:35	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:57	08:49 15:39
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:50 15:39
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:30	07:21 17:39	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:51 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:45	05:39 20:49	04:40 21:47	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:47	08:51 15:44
30	08:18 16:40		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:51 15:45
31	08:17 16:43		06:51 19:51		04:37 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Salvija - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (56)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	04:57 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Sarkani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (179)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:39
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:26 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:54 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
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 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:49	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Sarmas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (154)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Saulkrasti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (112)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	09:18 (C13) 17:48	07:11 19:53	06:49 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	09:19 (C13) 17:50	07:08 19:55	06:46 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	09:20 (C13) 17:52	07:06 19:57	06:43 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	09:21 (C13) 17:54	07:03 19:59	06:41 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	09:23 (C13) 17:51	07:01 19:59	06:38 21:02	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	09:25 (C13) 17:58	06:58 20:03	06:35 21:06	04:35 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	09:35 (C13) 17:58	06:55 20:03	06:33 21:06	04:30 21:59	04:36 22:06	05:27 21:17	06:29 20:01	07:30 18:40	07:36 16:25	08:34 15:41
8	08:48 15:58	08:01 17:01	09:35 (C13) 17:58	06:53 20:08	06:30 21:08	04:29 22:00	04:37 22:05	05:29 21:15	06:31 19:58	07:32 18:38	07:38 16:23	08:35 15:40
9	08:47 15:59	07:58 17:03	09:35 (C13) 17:58	06:50 20:10	06:28 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:56	07:34 18:35	07:40 16:21	08:37 15:40
10	08:46 16:01	07:56 17:05	09:35 (C13) 17:58	06:47 20:12	06:25 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	09:35 (C13) 17:58	06:45 20:14	06:22 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	08:44 16:05	07:52 17:10	09:35 (C13) 17:58	06:42 20:16	06:20 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	09:35 (C13) 17:58	06:40 20:18	06:17 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	09:35 (C13) 17:58	06:37 20:20	06:15 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	09:35 (C13) 17:58	06:34 20:22	06:12 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	09:35 (C13) 17:58	06:32 20:24	06:09 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	09:35 (C13) 17:58	06:29 20:26	06:07 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	09:35 (C13) 17:58	06:26 20:28	06:04 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	09:35 (C13) 17:58	06:24 20:31	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	09:35 (C13) 17:58	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	09:35 (C13) 17:58	06:18 20:35	05:57 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	09:35 (C13) 17:58	06:16 20:37	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 15:56	08:52 15:39
23	08:30 16:26	07:26 17:34	09:35 (C13) 17:58	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	08:53 15:40
24	08:29 16:28	07:23 17:37	09:35 (C13) 17:58	06:10 20:41	05:49 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:54 15:41
25	08:27 16:30	07:21 17:39	09:35 (C13) 17:58	06:08 20:43	05:47 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	08:55 15:41
26	08:26 16:32	07:18 17:41	09:35 (C13) 17:58	06:05 20:45	05:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:57 15:42
27	08:24 16:34	07:16 17:43	09:35 (C13) 17:58	06:02 20:47	05:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:49	08:58 15:43
28	08:22 16:36	07:13 17:45	09:35 (C13) 17:58	05:59 20:49	05:40 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:13 17:45	09:35 (C13) 17:58	05:57 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	07:13 17:45	09:35 (C13) 17:58	05:54 20:53	05:35 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	07:13 17:45	09:35 (C13) 17:58	05:51 20:51	05:32 21:51	04:37 21:30	05:14 21:17	06:15 20:17	07:20 16:38	07:20 15:43	08:22 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	407	109									521	
Sun reduction	0.13	0.20									0.08	
Oper. time red.	0.94	0.94									0.94	
Wind dir. red.	0.60	0.60									0.60	
Total reduction	0.07	0.11									0.05	
Total, real	30	12									24	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Saulites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (136)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August	September		October		November	December
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54		07:58 (C14) 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 22:09	05:18 21:26	06:19 20:11		07:19 18:51	28	07:58 (C14) 16:34	07:25 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	9	07:32 (C14) 07:41 (C14)	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	28	07:58 (C14) 16:32	07:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	14	07:29 (C14) 07:43 (C14)	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	28	07:57 (C14) 16:30	07:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	18	07:26 (C14) 07:44 (C14)	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:25 18:43	27	07:57 (C14) 16:27	07:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	22	07:24 (C14) 07:46 (C14)	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	25	07:58 (C14) 16:25	07:33 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	25	07:22 (C14) 07:47 (C14)	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	24	07:58 (C14) 16:23	07:36 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	26	07:21 (C14) 07:47 (C14)	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	20	08:00 (C14) 16:21	07:38 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	27	07:21 (C14) 07:48 (C14)	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	16	08:03 (C14) 16:19	07:40 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	28	07:20 (C14) 07:48 (C14)	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	12	08:05 (C14) 16:17	07:42 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	28	07:19 (C14) 07:47 (C14)	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	5	08:07 (C14) 16:15	07:44 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	29	07:19 (C14) 07:48 (C14)	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25		08:12 (C14) 16:13	07:46 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	28	07:19 (C14) 07:47 (C14)	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22			07:49 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	27	07:19 (C14) 07:46 (C14)	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20			07:51 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	26	07:20 (C14) 07:46 (C14)	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17			07:53 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	24	07:20 (C14) 07:44 (C14)	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15			07:55 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	21	07:21 (C14) 07:42 (C14)	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12			07:57 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	19	07:21 (C14) 07:40 (C14)	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09			07:59 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	14	07:24 (C14) 07:38 (C14)	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07			08:01 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	7	07:27 (C14) 07:34 (C14)	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 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30		05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 17:57			08:05 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32		05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	07:59 18:00	08:01 17:58			08:07 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	08:03 17:57			08:09 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:09 (C14) 17:55	08:05 17:55			08:11 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:06 (C14) 17:52	07:07 17:52			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	08:04 (C14) 17:50	07:10 17:50			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	08:02 (C14) 17:48	07:12 17:48			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	08:01 (C14) 17:43	07:14 17:43			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	08:00 (C14) 17:43	07:16 17:43			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	07:59 (C14) 17:41	07:18 17:41			08:22 15:46
31	08:17 16:43		06:52 19:51			04:37 21:51		05:14 21:30	06:15 20:17		08:27 (C14) 17:20	07:18 17:38			08:51 15:47
Potential sun hours	235	266	366		426	508	529	529	469	385		324		247	216
Total, worst case			392							153		241			
Sun reduction			0.41							0.43		0.26			
Oper. time red.			0.94							0.94		0.94			
Wind dir. red.			0.62							0.62		0.62			
Total reduction			0.24							0.25		0.15			
Total, real			94							38		36			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Seglini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (79)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	27	07:51 (C14) 08:18 (C14)	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50		06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11		07:19 18:51	26	07:51 (C14) 08:17 (C14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52		06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09		07:21 18:48	25	07:51 (C14) 08:16 (C14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54		06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06		07:23 18:46	23	07:52 (C14) 08:15 (C14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56		06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04		07:25 18:43	19	07:54 (C14) 08:13 (C14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	8	07:24 (C14) 07:32 (C14)	06:36 21:06	05:21 21:59	04:31 22:06	05:25 21:17	06:27 20:01		07:28 18:40	15	07:56 (C14) 08:11 (C14)	07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	13	07:21 (C14) 07:34 (C14)	06:33 21:08	05:19 22:00	04:30 22:05	05:27 21:15	06:29 19:58		07:30 18:38	11	07:58 (C14) 08:09 (C14)	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	18	07:18 (C14) 07:36 (C14)	06:30 21:08	05:17 22:01	04:29 22:04	05:29 21:13	06:31 19:56		07:32 18:35	4	08:00 (C14) 08:04 (C14)	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	21	07:16 (C14) 07:37 (C14)	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 17:05	06:48 18:07	24	07:14 (C14) 07:38 (C14)	06:25 21:12	05:13 22:03	04:28 22:02	05:33 21:08	06:35 19:50		07:36 18:30			07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	26	07:12 (C14) 07:38 (C14)	06:22 21:14	05:11 22:03	04:27 22:02	05:35 21:08	06:37 19:50		07:38 18:27			07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	27	07:12 (C14) 07:39 (C14)	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	28	07:11 (C14) 07:39 (C14)	06:17 21:20	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	27	07:11 (C14) 07:38 (C14)	06:15 21:22	05:05 22:07	04:26 21:58	05:41 20:59	06:43 19:39		07:44 18:20			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	27	07:11 (C14) 07:38 (C14)	06:12 21:24	05:03 22:07	04:26 21:57	05:43 20:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	27	07:11 (C14) 07:38 (C14)	06:09 21:26	05:01 22:08	04:26 21:55	05:45 20:54	06:47 19:34		07:48 18:15			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	26	07:11 (C14) 07:37 (C14)	06:07 21:27	04:59 22:08	04:25 21:54	05:47 20:52	06:49 19:31		07:50 18:12			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	24	07:11 (C14) 07:35 (C14)	06:04 21:29	04:57 22:09	04:25 21:52	05:49 20:50	06:51 19:29		07:53 18:09			07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	23	07:12 (C14) 07:35 (C14)	06:02 21:31	04:55 22:09	04:25 21:51	05:51 20:47	06:53 19:26		07:55 18:07			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	20	07:13 (C14) 07:33 (C14)	05:59 21:33	04:54 22:10	04:25 21:49	05:53 20:45	06:55 19:23		07:57 18:04			08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	16	07:14 (C14) 07:30 (C14)	05:57 21:35	04:52 22:10	04:25 21:48	05:55 20:42	06:57 19:21	08:03 (C14)	07:59 18:02	10	08:00 (C14) 08:15 (C14)	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	11	07:17 (C14) 07:28 (C14)	05:54 21:37	04:50 22:10	04:26 21:46	05:57 20:40	06:59 19:18	08:00 (C14)	08:01 18:00	15	08:00 (C14) 08:17 (C14)	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	04:58 21:45	05:59 20:37	07:01 19:15	07:58 (C14)	08:03 17:57	19	08:03 (C14) 08:18 (C14)	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36		05:49 20:41	04:47 21:40	04:26 22:10	04:59 21:43	05:01 20:35	07:03 19:12	07:56 (C14)	08:05 17:55	22	07:56 (C14) 08:19 (C14)	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:55 (C14)	07:07 16:52	24	07:55 (C14) 08:19 (C14)	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:54 (C14)	07:10 16:50	25	07:54 (C14) 08:19 (C14)	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43		05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:53 (C14)	07:12 16:48	26	07:53 (C14) 08:19 (C14)	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45		05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:52 (C14)	07:14 16:45	27	07:52 (C14) 08:19 (C14)	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47		05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:52 (C14)	07:16 16:43	27	07:52 (C14) 08:19 (C14)	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49		05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:51 (C14)	07:18 16:41	28	07:51 (C14) 08:19 (C14)	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51			05:14 21:30	06:15 20:17			07:20 16:38				08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324			247	216
Total, worst case										223		150				
Sun reduction			0.41							0.43		0.26				
Oper. time red.			0.94							0.94		0.94				
Wind dir. red.			0.62							0.62		0.62				
Total reduction			0.24							0.25		0.15				
Total, real			88							56		23				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	Minutes with flicker		

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Senlici - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (140)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	11	07:46 (C14) 07:57 (C14)	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50		06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11		07:19 18:51			07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52		06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09		07:21 18:48			07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54		06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06		07:23 18:46			07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56		06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04		07:25 18:43			07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58		06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01		07:28 18:40			07:33 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01		06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58		07:30 18:38			07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03		06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56		07:32 18:35			07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05		06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:33			07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07		06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50		07:36 18:30			07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09		06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47		07:38 18:27			07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	7	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	7	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	12	07:52 (C14) 08:04 (C14)			07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	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	17	07:49 (C14) 08:06 (C14)			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	19	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	21	07:47 (C14) 08:08 (C14)			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	22	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	24	07:45 (C14) 08:09 (C14)			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	25	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	26	07:44 (C14) 08:10 (C14)			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	27	06:06 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	27	07:43 (C14) 08:10 (C14)			07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	29	06:05 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	29	07:42 (C14) 08:11 (C14)			07:55 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	29	06:05 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	30	07:41 (C14) 08:11 (C14)			07:57 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	30	06:04 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	30	07:41 (C14) 08:11 (C14)			07:59 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	31	06:05 20:37	04:54 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	30	07:40 (C14) 08:10 (C14)			08:01 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	30	06:04 20:39	04:52 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	30	07:40 (C14) 08:10 (C14)			08:03 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	29	06:04 20:41	04:49 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	29	07:40 (C14) 08:09 (C14)			08:05 15:53	08:51 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	28	06:05 20:43	04:47 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	28	07:40 (C14) 08:08 (C14)			08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	26	06:05 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	28	07:40 (C14) 08:08 (C14)			08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	24	06:06 20:47	04:42 21:45	04:28 22:10	05:06 21:38	06:07 20:27	07:09 19:04	26	07:40 (C14) 08:06 (C14)			08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	22	06:07 20:49	04:40 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	24	07:41 (C14) 08:05 (C14)			07:14 16:45	08:19 15:44
29	08:20 16:39		06:57 19:47	18	07:58 (C14) 08:16 (C14)	05:37 20:51	04:40 21:48	04:29 22:10	05:10 20:22	06:11 18:59	21	07:13 (C14) 08:03 (C14)			07:16 16:43	08:21 15:45
30	08:19 16:41		06:54 19:49	13	08:00 (C14) 08:13 (C14)	05:35 20:53	04:38 21:50	04:29 22:09	06:13 20:19	07:15 18:56	17	07:44 (C14) 08:01 (C14)			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	528	529	469	385		324			247	216
Total, worst case				454						449			11			
Sun reduction				0.41						0.43			0.26			
Oper. time red.				0.94						0.94			0.94			
Wind dir. red.				0.63						0.63			0.63			
Total reduction				0.25						0.26			0.15			
Total, real				112						115			2			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)
	Minutes with flicker		

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Silavinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (224)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 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	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (152)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February			March	April	May	June
1	08:51		10:06 (C13)	08:15		10:07 (C13)	07:11	06:49	05:33	04:36
	15:48	26	10:32 (C13)	16:45	44	10:51 (C13)	17:48	19:53	20:55	21:53
2	08:50		10:06 (C13)	08:13		10:07 (C13)	07:08	06:46	05:30	04:35
	15:49	27	10:33 (C13)	16:47	43	10:50 (C13)	17:50	19:55	20:57	21:54
3	08:50		10:06 (C13)	08:11		10:08 (C13)	07:06	06:43	05:28	04:34
	15:51	28	10:34 (C13)	16:50	42	10:50 (C13)	17:52	19:57	21:00	21:55
4	08:50		10:05 (C13)	08:09		10:09 (C13)	07:03	06:41	05:26	04:33
	15:52	30	10:35 (C13)	16:52	41	10:50 (C13)	17:54	19:59	21:02	21:57
5	08:49		10:06 (C13)	08:07		10:10 (C13)	07:00	06:38	05:23	04:32
	15:53	30	10:36 (C13)	16:54	40	10:50 (C13)	17:56	20:01	21:04	21:58
6	08:49		10:05 (C13)	08:05		10:10 (C13)	06:58	06:35	05:21	04:31
	15:55	32	10:37 (C13)	16:56	38	10:48 (C13)	17:58	20:03	21:06	21:59
7	08:48		10:05 (C13)	08:03		10:12 (C13)	06:55	06:33	05:19	04:30
	15:56	33	10:38 (C13)	16:59	36	10:48 (C13)	18:00	20:05	21:08	22:00
8	08:48		10:05 (C13)	08:01		10:13 (C13)	06:53	06:30	05:17	04:29
	15:58	34	10:39 (C13)	17:01	34	10:47 (C13)	18:03	20:08	21:10	22:01
9	08:47		10:05 (C13)	07:58		10:14 (C13)	06:50	06:28	05:15	04:29
	15:59	35	10:40 (C13)	17:03	31	10:45 (C13)	18:05	20:10	21:12	22:02
10	08:46		10:05 (C13)	07:56		10:16 (C13)	06:47	06:25	05:13	04:28
	16:01	36	10:41 (C13)	17:05	27	10:43 (C13)	18:07	20:12	21:14	22:03
11	08:45		10:05 (C13)	07:54		10:19 (C13)	06:45	06:22	05:11	04:27
	16:03	37	10:42 (C13)	17:08	23	10:42 (C13)	18:09	20:14	21:16	22:04
12	08:44		10:05 (C13)	07:52		10:21 (C13)	06:42	06:20	05:08	04:27
	16:04	38	10:43 (C13)	17:10	17	10:38 (C13)	18:11	20:16	21:18	22:05
13	08:43		10:04 (C13)	07:49		10:26 (C13)	06:40	06:17	05:06	04:26
	16:06	39	10:43 (C13)	17:12	7	10:33 (C13)	18:13	20:18	21:20	22:06
14	08:42		10:05 (C13)	07:47			06:37	06:14	05:04	04:26
	16:08	39	10:44 (C13)	17:14			18:15	20:20	21:22	22:07
15	08:41		10:04 (C13)	07:45			06:34	06:12	05:03	04:26
	16:10	40	10:44 (C13)	17:17			18:18	20:22	21:24	22:07
16	08:40		10:04 (C13)	07:43			06:32	06:09	05:01	04:25
	16:12	42	10:46 (C13)	17:19			18:20	20:24	21:25	22:08
17	08:39		10:05 (C13)	07:40			06:29	06:07	04:59	04:25
	16:14	42	10:47 (C13)	17:21			18:22	20:26	21:27	22:08
18	08:37		10:04 (C13)	07:38			06:26	06:04	04:57	04:25
	16:16	43	10:47 (C13)	17:23			18:24	20:28	21:29	22:09
19	08:36		10:04 (C13)	07:36			06:24	06:02	04:55	04:25
	16:18	43	10:47 (C13)	17:26			18:26	20:30	21:31	22:09
20	08:35		10:05 (C13)	07:33			06:21	05:59	04:53	04:25
	16:20	44	10:49 (C13)	17:28			18:28	20:33	21:33	22:10
21	08:33		10:04 (C13)	07:31			06:18	05:57	04:52	04:25
	16:22	45	10:49 (C13)	17:30			18:30	20:35	21:35	22:10
22	08:32		10:04 (C13)	07:28			06:16	05:54	04:50	04:25
	16:24	45	10:49 (C13)	17:32			18:32	20:37	21:37	22:10
23	08:30		10:04 (C13)	07:26			06:13	05:52	04:48	04:26
	16:26	45	10:49 (C13)	17:34			18:34	20:39	21:38	22:10
24	08:29		10:05 (C13)	07:23			06:10	05:49	04:47	04:26
	16:28	46	10:51 (C13)	17:37			18:36	20:41	21:40	22:10
25	08:27		10:05 (C13)	07:21			06:07	05:47	04:45	04:26
	16:30	46	10:51 (C13)	17:39			18:38	20:43	21:42	22:10
26	08:26		10:05 (C13)	07:18			06:05	05:44	04:44	04:27
	16:32	46	10:51 (C13)	17:41			18:41	20:45	21:43	22:10
27	08:24		10:06 (C13)	07:16			06:02	05:42	04:42	04:27
	16:34	45	10:51 (C13)	17:43			18:43	20:47	21:45	22:10
28	08:22		10:06 (C13)	07:13			05:59	05:40	04:41	04:28
	16:36	45	10:51 (C13)	17:45			18:45	20:49	21:47	22:10
29	08:20		10:06 (C13)				06:57	05:37	04:40	04:29
	16:39	46	10:52 (C13)				19:47	20:51	21:48	22:10
30	08:18		10:07 (C13)				06:54	05:35	04:38	04:29
	16:41	45	10:52 (C13)				19:49	20:53	21:50	22:09
31	08:17		10:07 (C13)				06:51		04:37	
	16:43	45	10:52 (C13)				19:51		21:51	
Potential sun hours	235			266			366	426	508	529
Total, worst case	1217			423						
Sun reduction	0.13			0.20						
Oper. time red.	0.94			0.94						
Wind dir. red.	0.61			0.61						
Total reduction	0.08			0.12						
Total, real	94			49						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (152)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	09:45 (C13) 10:13 (C13)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:43 (C13) 10:15 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:43 (C13) 10:17 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:41 (C13) 10:17 (C13)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:40 (C13) 10:18 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:40 (C13) 10:19 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:39 (C13) 10:20 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:39 (C13) 10:21 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:38 (C13) 10:21 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:39 (C13) 10:22 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:38 (C13) 10:22 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:37 (C13) 10:22 (C13)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:38 (C13) 10:23 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:38 (C13) 10:23 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:37 (C13) 10:23 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:38 (C13) 10:24 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:38 (C13) 10:24 (C13)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:39 (C13) 10:25 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:39 (C13) 10:24 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:39 (C13) 10:24 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:39 (C13) 10:24 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:41 (C13) 10:25 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:41 (C13) 10:24 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:41 (C13) 10:24 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	09:42 (C13) 10:24 (C13)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	09:42 (C13) 10:24 (C13)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47	08:17 15:49	09:44 (C13) 10:25 (C13)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	09:45 (C13) 10:24 (C13)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	09:45 (C13) 10:24 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	08:22 15:46	09:46 (C13) 10:24 (C13)
31	05:14 21:30	06:15 20:17	07:17 18:53	08:20 16:38	08:24 15:45	09:47 (C13) 10:25 (C13)
Potential sun hours	529	469	385	324	247	216
Total, worst case				52	1245	785
Sun reduction				0.26	0.08	0.07
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.61	0.61	0.61
Total reduction				0.15	0.05	0.04
Total, real				8	59	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)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345002) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (144)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January		February		March	April	May	June
1	08:51	10:10 (C13)	08:15	10:10 (C13)	07:11	06:49	05:33	04:36
	15:48	27	10:37 (C13)	16:45	46	10:56 (C13)	17:48	19:53
2	08:50	10:10 (C13)	08:13	10:11 (C13)	07:08	06:46	05:30	04:35
	15:49	29	10:39 (C13)	16:47	45	10:56 (C13)	17:50	19:55
3	08:50	10:10 (C13)	08:11	10:12 (C13)	07:06	06:43	05:28	04:34
	15:51	29	10:39 (C13)	16:50	44	10:56 (C13)	17:52	19:57
4	08:50	10:09 (C13)	08:09	10:13 (C13)	07:03	06:41	05:26	04:33
	15:52	31	10:40 (C13)	16:52	43	10:56 (C13)	17:54	19:59
5	08:49	10:10 (C13)	08:07	10:14 (C13)	07:00	06:38	05:23	04:32
	15:53	32	10:42 (C13)	16:54	42	10:56 (C13)	17:56	20:01
6	08:49	10:09 (C13)	08:05	10:14 (C13)	06:58	06:35	05:21	04:31
	15:55	33	10:42 (C13)	16:56	40	10:54 (C13)	17:58	20:03
7	08:48	10:09 (C13)	08:03	10:15 (C13)	06:55	06:33	05:19	04:30
	15:56	34	10:43 (C13)	16:59	39	10:54 (C13)	18:00	20:05
8	08:48	10:09 (C13)	08:01	10:16 (C13)	06:53	06:30	05:17	04:29
	15:58	35	10:44 (C13)	17:01	37	10:53 (C13)	18:03	20:08
9	08:47	10:09 (C13)	07:58	10:17 (C13)	06:50	06:28	05:15	04:29
	15:59	36	10:45 (C13)	17:03	34	10:51 (C13)	18:05	20:10
10	08:46	10:09 (C13)	07:56	10:19 (C13)	06:47	06:25	05:13	04:28
	16:01	37	10:46 (C13)	17:05	31	10:50 (C13)	18:07	20:12
11	08:45	10:09 (C13)	07:54	10:21 (C13)	06:45	06:22	05:11	04:27
	16:03	38	10:47 (C13)	17:08	28	10:49 (C13)	18:09	20:14
12	08:44	10:09 (C13)	07:52	10:22 (C13)	06:42	06:20	05:08	04:27
	16:04	39	10:48 (C13)	17:10	24	10:46 (C13)	18:11	20:16
13	08:43	10:08 (C13)	07:49	10:26 (C13)	06:40	06:17	05:06	04:26
	16:06	40	10:48 (C13)	17:12	17	10:43 (C13)	18:13	20:18
14	08:42	10:08 (C13)	07:47	10:30 (C13)	06:37	06:14	05:04	04:26
	16:08	42	10:50 (C13)	17:14	7	10:37 (C13)	18:15	20:20
15	08:41	10:08 (C13)	07:45		06:34	06:12	05:03	04:26
	16:10	42	10:50 (C13)	17:17		18:18	20:22	21:24
16	08:40	10:08 (C13)	07:43		06:32	06:09	05:01	04:25
	16:12	43	10:51 (C13)	17:19		18:20	20:24	21:25
17	08:39	10:09 (C13)	07:40		06:29	06:07	04:59	04:25
	16:14	43	10:52 (C13)	17:21		18:22	20:26	21:27
18	08:37	10:08 (C13)	07:38		06:26	06:04	04:57	04:25
	16:16	45	10:53 (C13)	17:23		18:24	20:28	21:29
19	08:36	10:08 (C13)	07:36		06:24	06:02	04:55	04:25
	16:18	45	10:53 (C13)	17:26		18:26	20:30	21:31
20	08:35	10:08 (C13)	07:33		06:21	05:59	04:53	04:25
	16:20	46	10:54 (C13)	17:28		18:28	20:33	21:33
21	08:33	10:08 (C13)	07:31		06:18	05:57	04:52	04:25
	16:22	46	10:54 (C13)	17:30		18:30	20:35	21:35
22	08:32	10:08 (C13)	07:28		06:16	05:54	04:50	04:25
	16:24	47	10:55 (C13)	17:32		18:32	20:37	21:37
23	08:30	10:08 (C13)	07:26		06:13	05:52	04:48	04:26
	16:26	47	10:55 (C13)	17:34		18:34	20:39	21:38
24	08:29	10:09 (C13)	07:23		06:10	05:49	04:47	04:26
	16:28	47	10:56 (C13)	17:37		18:36	20:41	21:40
25	08:27	10:09 (C13)	07:21		06:07	05:47	04:45	04:26
	16:30	47	10:56 (C13)	17:39		18:38	20:43	21:42
26	08:26	10:09 (C13)	07:18		06:05	05:44	04:44	04:27
	16:32	48	10:57 (C13)	17:41		18:41	20:45	21:43
27	08:24	10:09 (C13)	07:16		06:02	05:42	04:42	04:27
	16:34	48	10:57 (C13)	17:43		18:43	20:47	21:45
28	08:22	10:10 (C13)	07:13		05:59	05:40	04:41	04:28
	16:36	47	10:57 (C13)	17:45		18:45	20:49	21:47
29	08:20	10:10 (C13)			06:57	05:37	04:40	04:29
	16:39	47	10:57 (C13)			19:47	20:51	21:48
30	08:18	10:10 (C13)			06:54	05:35	04:38	04:29
	16:41	47	10:57 (C13)			19:49	20:53	21:50
31	08:17	10:11 (C13)			06:51		04:37	
	16:43	46	10:57 (C13)			19:51	21:51	
Potential sun hours	235		266		366	426	508	529
Total, worst case	1263		477					
Sun reduction	0.13		0.20					
Oper. time red.	0.94		0.94					
Wind dir. red.	0.61		0.61					
Total reduction	0.08		0.12					
Total, real	97		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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345002) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (144)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December		
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	09:48 (C13) 10:20 (C13)	08:24 15:45	09:51 (C13) 10:29 (C13)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:46 (C13) 10:21 (C13)	08:26 15:44	09:52 (C13) 10:29 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:46 (C13) 10:23 (C13)	08:28 15:43	09:52 (C13) 10:28 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:44 (C13) 10:24 (C13)	08:29 15:42	09:53 (C13) 10:28 (C13)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:43 (C13) 10:24 (C13)	08:31 15:42	09:54 (C13) 10:28 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:43 (C13) 10:26 (C13)	08:32 15:41	09:55 (C13) 10:29 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:42 (C13) 10:26 (C13)	08:34 15:40	09:56 (C13) 10:28 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:42 (C13) 10:27 (C13)	08:35 15:40	09:57 (C13) 10:28 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:42 (C13) 10:27 (C13)	08:37 15:39	09:58 (C13) 10:28 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:42 (C13) 10:28 (C13)	08:38 15:39	09:59 (C13) 10:28 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:42 (C13) 10:28 (C13)	08:39 15:38	10:00 (C13) 10:28 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:41 (C13) 10:28 (C13)	08:40 15:38	10:01 (C13) 10:28 (C13)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:42 (C13) 10:29 (C13)	08:42 15:38	10:02 (C13) 10:28 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:41 (C13) 10:29 (C13)	08:43 15:38	10:03 (C13) 10:28 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:41 (C13) 10:29 (C13)	08:44 15:38	10:03 (C13) 10:28 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:42 (C13) 10:30 (C13)	08:45 15:38	10:04 (C13) 10:28 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:42 (C13) 10:29 (C13)	08:46 15:38	10:05 (C13) 10:28 (C13)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:43 (C13) 10:30 (C13)	08:46 15:38	10:06 (C13) 10:28 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:43 (C13) 10:30 (C13)	08:47 15:38	10:06 (C13) 10:28 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:43 (C13) 10:30 (C13)	08:48 15:39	10:07 (C13) 10:29 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:43 (C13) 10:29 (C13)	08:48 15:39	10:08 (C13) 10:29 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:45 (C13) 10:30 (C13)	08:49 15:39	10:08 (C13) 10:29 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:45 (C13) 10:30 (C13)	08:50 15:40	10:09 (C13) 10:31 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:45 (C13) 10:30 (C13)	08:50 15:41	10:09 (C13) 10:31 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	09:46 (C13) 10:29 (C13)	08:50 15:41	10:09 (C13) 10:31 (C13)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	09:46 (C13) 10:29 (C13)	08:51 15:42	10:09 (C13) 10:32 (C13)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47	08:17 15:49	09:48 (C13) 10:30 (C13)	08:51 15:43	10:09 (C13) 10:33 (C13)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	09:49 (C13) 10:30 (C13)	08:51 15:44	10:09 (C13) 10:33 (C13)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	09:49 (C13) 10:30 (C13)	08:51 15:45	10:10 (C13) 10:34 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	08:22 15:46	09:50 (C13) 10:29 (C13)	08:51 15:46	10:10 (C13) 10:36 (C13)
31	05:14 21:30	06:15 20:17		08:20 16:38	08:29 15:45	09:49 (C13) 10:18 (C13)	08:51 15:47	10:10 (C13) 10:37 (C13)
Potential sun hours	529	469	385	324	247		216	
Total, worst case				84	1310		836	
Sun reduction				0.26	0.08		0.07	
Oper. time red.				0.94	0.94		0.94	
Wind dir. red.				0.61	0.61		0.61	
Total reduction				0.15	0.05		0.04	
Total, real				13	62		34	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345005) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (143)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January		February		March	April	May	June
1	08:51	10:14 (C13)	08:15	10:18 (C13)	07:11	06:49	05:33	04:36
	15:48	33	10:47 (C13)	16:45	44	11:02 (C13)	17:48	19:53
2	08:50	10:14 (C13)	08:13	10:19 (C13)	07:08	06:46	05:30	04:35
	15:49	34	10:48 (C13)	16:47	43	11:02 (C13)	17:50	19:55
3	08:50	10:14 (C13)	08:11	10:19 (C13)	07:06	06:43	05:28	04:34
	15:51	34	10:48 (C13)	16:50	43	11:02 (C13)	17:52	19:57
4	08:50	10:14 (C13)	08:09	10:20 (C13)	07:03	06:41	05:26	04:33
	15:52	35	10:49 (C13)	16:52	41	11:01 (C13)	17:54	19:59
5	08:49	10:14 (C13)	08:07	10:22 (C13)	07:00	06:38	05:23	04:32
	15:53	36	10:50 (C13)	16:54	39	11:01 (C13)	17:56	20:01
6	08:49	10:14 (C13)	08:05	10:22 (C13)	06:58	06:35	05:21	04:31
	15:55	37	10:51 (C13)	16:56	37	10:59 (C13)	17:58	20:03
7	08:48	10:14 (C13)	08:03	10:23 (C13)	06:55	06:33	05:19	04:30
	15:56	38	10:52 (C13)	16:59	35	10:58 (C13)	18:00	20:05
8	08:48	10:14 (C13)	08:01	10:25 (C13)	06:53	06:30	05:17	04:29
	15:58	38	10:52 (C13)	17:01	32	10:57 (C13)	18:03	20:08
9	08:47	10:14 (C13)	07:58	10:26 (C13)	06:50	06:28	05:15	04:28
	15:59	39	10:53 (C13)	17:03	29	10:55 (C13)	18:05	20:10
10	08:46	10:14 (C13)	07:56	10:28 (C13)	06:47	06:25	05:13	04:28
	16:01	40	10:54 (C13)	17:05	26	10:54 (C13)	18:07	20:12
11	08:45	10:14 (C13)	07:54	10:31 (C13)	06:45	06:22	05:11	04:27
	16:03	41	10:55 (C13)	17:08	20	10:51 (C13)	18:09	20:14
12	08:44	10:14 (C13)	07:52	10:35 (C13)	06:42	06:20	05:08	04:27
	16:04	42	10:56 (C13)	17:10	12	10:47 (C13)	18:11	20:16
13	08:43	10:14 (C13)	07:49		06:40	06:17	05:06	04:26
	16:06	42	10:56 (C13)	17:12		18:13	20:18	21:20
14	08:42	10:14 (C13)	07:47		06:37	06:14	05:04	04:26
	16:08	43	10:57 (C13)	17:14		18:15	20:20	21:22
15	08:41	10:14 (C13)	07:45		06:34	06:12	05:03	04:26
	16:10	43	10:57 (C13)	17:17		18:18	20:22	21:24
16	08:40	10:14 (C13)	07:43		06:32	06:09	05:01	04:25
	16:12	44	10:58 (C13)	17:19		18:20	20:24	21:25
17	08:39	10:15 (C13)	07:40		06:29	06:07	04:59	04:25
	16:14	45	11:00 (C13)	17:21		18:22	20:26	21:27
18	08:37	10:14 (C13)	07:38		06:26	06:04	04:57	04:25
	16:16	46	11:00 (C13)	17:23		18:24	20:28	21:29
19	08:36	10:14 (C13)	07:35		06:24	06:02	04:55	04:25
	16:18	46	11:00 (C13)	17:26		18:26	20:30	21:31
20	08:35	10:15 (C13)	07:33		06:21	05:59	04:53	04:25
	16:20	46	11:01 (C13)	17:28		18:28	20:33	21:33
21	08:33	10:15 (C13)	07:31		06:18	05:57	04:52	04:25
	16:22	46	11:01 (C13)	17:30		18:30	20:35	21:35
22	08:32	10:14 (C13)	07:28		06:16	05:54	04:50	04:25
	16:24	48	11:02 (C13)	17:32		18:32	20:37	21:37
23	08:30	10:14 (C13)	07:26		06:13	05:52	04:48	04:26
	16:26	48	11:02 (C13)	17:34		18:34	20:39	21:38
24	08:29	10:16 (C13)	07:23		06:10	05:49	04:47	04:26
	16:28	47	11:03 (C13)	17:37		18:36	20:41	21:40
25	08:27	10:16 (C13)	07:21		06:07	05:47	04:45	04:26
	16:30	47	11:03 (C13)	17:39		18:38	20:43	21:42
26	08:26	10:16 (C13)	07:18		06:05	05:44	04:44	04:27
	16:32	47	11:03 (C13)	17:41		18:41	20:45	21:43
27	08:24	10:16 (C13)	07:16		06:02	05:42	04:42	04:27
	16:34	47	11:03 (C13)	17:43		18:43	20:47	21:45
28	08:22	10:16 (C13)	07:13		05:59	05:40	04:41	04:28
	16:36	47	11:03 (C13)	17:45		18:45	20:49	21:47
29	08:20	10:17 (C13)			06:57	05:37	04:40	04:29
	16:39	46	11:03 (C13)			19:47	20:51	21:48
30	08:18	10:17 (C13)			06:54	05:35	04:38	04:29
	16:41	46	11:03 (C13)			19:49	20:53	21:50
31	08:17	10:18 (C13)			06:51		04:37	
	16:43	45	11:03 (C13)			19:51	21:51	
Potential sun hours	235		266		366	426	508	529
Total, worst case	1316		401					
Sun reduction	0.13		0.20					
Oper. time red.	0.94		0.94					
Wind dir. red.	0.61		0.61					
Total reduction	0.08		0.12					
Total, real	101		47					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Skola (kad. apz. 56960040345005) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (143)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December		
1	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	09:58 (C13) 10:24 (C13)	08:24 15:45	09:56 (C13) 10:37 (C13)
2	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	09:55 (C13) 10:25 (C13)	08:26 15:44	09:57 (C13) 10:37 (C13)
3	04:32 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:32	09:54 (C13) 10:27 (C13)	08:28 15:43	09:57 (C13) 10:36 (C13)
4	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	09:53 (C13) 10:28 (C13)	08:29 15:42	09:58 (C13) 10:37 (C13)
5	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	09:51 (C13) 10:29 (C13)	08:31 15:42	09:59 (C13) 10:37 (C13)
6	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	09:51 (C13) 10:31 (C13)	08:32 15:41	10:00 (C13) 10:37 (C13)
7	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	09:50 (C13) 10:31 (C13)	08:34 15:40	10:00 (C13) 10:36 (C13)
8	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	09:50 (C13) 10:33 (C13)	08:35 15:40	10:02 (C13) 10:37 (C13)
9	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	09:49 (C13) 10:33 (C13)	08:37 15:39	10:02 (C13) 10:36 (C13)
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	09:50 (C13) 10:34 (C13)	08:38 15:39	10:03 (C13) 10:37 (C13)
11	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	09:49 (C13) 10:34 (C13)	08:39 15:38	10:04 (C13) 10:37 (C13)
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	09:48 (C13) 10:34 (C13)	08:40 15:38	10:05 (C13) 10:37 (C13)
13	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	09:49 (C13) 10:35 (C13)	08:42 15:38	10:06 (C13) 10:37 (C13)
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	09:48 (C13) 10:35 (C13)	08:43 15:38	10:07 (C13) 10:37 (C13)
15	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	09:48 (C13) 10:35 (C13)	08:44 15:38	10:07 (C13) 10:37 (C13)
16	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	09:49 (C13) 10:36 (C13)	08:45 15:38	10:08 (C13) 10:38 (C13)
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	09:49 (C13) 10:36 (C13)	08:46 15:38	10:09 (C13) 10:38 (C13)
18	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	09:49 (C13) 10:37 (C13)	08:46 15:38	10:10 (C13) 10:38 (C13)
19	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	09:49 (C13) 10:37 (C13)	08:47 15:38	10:09 (C13) 10:38 (C13)
20	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	09:49 (C13) 10:37 (C13)	08:48 15:39	10:10 (C13) 10:39 (C13)
21	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	09:50 (C13) 10:36 (C13)	08:48 15:39	10:11 (C13) 10:39 (C13)
22	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	08:07 15:56	09:51 (C13) 10:37 (C13)	08:49 15:39	10:11 (C13) 10:39 (C13)
23	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	09:51 (C13) 10:37 (C13)	08:50 15:40	10:12 (C13) 10:41 (C13)
24	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	09:51 (C13) 10:37 (C13)	08:50 15:41	10:12 (C13) 10:41 (C13)
25	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	09:52 (C13) 10:37 (C13)	08:50 15:41	10:12 (C13) 10:41 (C13)
26	05:04 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	09:52 (C13) 10:37 (C13)	08:51 15:42	10:13 (C13) 10:42 (C13)
27	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:47	08:17 15:49	09:54 (C13) 10:37 (C13)	08:51 15:43	10:13 (C13) 10:42 (C13)
28	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	09:54 (C13) 10:37 (C13)	08:51 15:44	10:13 (C13) 10:43 (C13)
29	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	09:55 (C13) 10:37 (C13)	08:51 15:45	10:13 (C13) 10:44 (C13)
30	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:40	08:22 15:46	09:56 (C13) 10:37 (C13)	08:51 15:46	10:14 (C13) 10:45 (C13)
31	05:14 21:30	06:15 20:17		07:20 16:38	09:59 (C13) 10:20 (C13)		08:51 15:47	10:14 (C13) 10:46 (C13)
Potential sun hours	529	469	385	324	247		216	
Total, worst case				35	1286		999	
Sun reduction				0.26	0.08		0.07	
Oper. time red.				0.94	0.94		0.94	
Wind dir. red.				0.61	0.61		0.61	
Total reduction				0.15	0.05		0.04	
Total, real				5	61		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)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Smelceja - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (216)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:33	08:25 15:44
3	08:50 15:50	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:34 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:15	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:25	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:46
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Smelceju majas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (197)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:16 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:01 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:25	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:58	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:52 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:45
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	09:17 (C13) 17:48	07:11 19:53	06:49 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	06:17 18:54	07:23 16:36	08:44 (C13) 15:45
2	08:50 15:49	08:13 16:47	09:17 (C13) 17:50	07:08 19:55	06:46 20:57	05:30 21:54	04:35 22:09	04:31 21:26	05:18 20:11	06:19 18:51	07:25 16:34	08:44 (C13) 15:44
3	08:50 15:51	08:11 16:50	09:16 (C13) 17:52	07:06 19:57	06:43 21:00	05:28 21:55	04:34 22:08	04:32 21:24	05:19 20:09	06:21 18:48	07:27 16:32	08:45 (C13) 15:43
4	08:50 15:52	08:09 16:52	09:16 (C13) 17:54	07:03 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:21 20:06	06:23 18:46	07:23 16:29	08:45 (C13) 15:42
5	08:49 15:53	08:07 16:54	09:16 (C13) 17:56	07:00 19:58	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 18:43	07:25 16:27	08:45 (C13) 15:42
6	08:49 15:55	08:05 16:56	09:15 (C13) 17:58	06:58 20:03	06:35 21:06	05:21 21:59	04:31 22:06	04:35 21:17	05:25 20:01	06:27 18:40	07:27 16:25	08:46 (C13) 15:41
7	08:48 15:56	08:03 16:59	09:15 (C13) 18:01	06:55 20:05	06:33 21:08	05:19 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	08:46 (C13) 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	09:15 (C13) 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	08:47 (C13) 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	09:14 (C13) 18:05	06:50 20:10	06:28 21:12	05:15 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	08:47 (C13) 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	09:15 (C13) 18:07	06:47 20:12	06:25 21:14	05:13 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:36 18:30	08:49 (C13) 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	09:15 (C13) 18:09	06:45 20:14	06:22 21:16	05:11 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	08:49 (C13) 16:15	08:39 15:38
12	08:44 16:05	07:52 17:10	09:15 (C13) 18:11	06:42 20:16	06:20 21:18	05:08 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	08:50 (C13) 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	09:15 (C13) 18:13	06:40 20:18	06:17 21:20	05:06 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	08:52 (C13) 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	09:15 (C13) 18:15	06:37 20:20	06:15 21:22	05:04 22:07	04:46 21:58	05:41 20:59	06:43 19:39	07:44 18:20	08:53 (C13) 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	09:16 (C13) 18:18	06:34 20:22	06:12 21:24	05:03 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	08:54 (C13) 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	09:16 (C13) 18:20	06:32 20:24	06:09 21:25	05:01 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	08:56 (C13) 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	09:17 (C13) 18:22	06:29 20:26	06:07 21:27	04:59 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	08:58 (C13) 16:04	08:46 15:38
18	08:37 16:16	07:38 17:23	09:17 (C13) 18:24	06:26 20:28	06:04 21:29	04:57 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:09	09:01 (C13) 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	09:18 (C13) 18:26	06:24 20:30	06:02 21:31	04:55 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	09:05 (C13) 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	09:19 (C13) 18:28	06:21 20:33	05:59 21:33	04:53 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	09:13 (C13) 16:00	08:48 15:39
21	08:33 16:22	07:31 17:30	09:21 (C13) 18:30	06:18 20:35	05:57 21:35	04:52 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	09:15 (C13) 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	09:22 (C13) 18:32	06:16 20:37	05:54 21:37	04:50 22:10	04:57 21:46	05:57 20:40	06:59 19:18	08:01 17:59	09:17 (C13) 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	09:24 (C13) 18:34	06:13 20:39	05:52 21:38	04:48 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	09:19 (C13) 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	09:26 (C13) 18:36	06:10 20:41	05:49 21:40	04:47 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	09:21 (C13) 15:53	08:51 15:41
25	08:27 16:30	07:21 17:39	09:28 (C13) 18:37	06:07 20:43	05:47 21:42	04:45 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	09:23 (C13) 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	09:31 (C13) 18:38	06:05 20:45	05:44 21:43	04:44 22:10	05:04 21:39	06:05 20:30	07:07 19:07	08:15 17:50	09:24 (C13) 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	09:32 (C13) 18:39	06:02 20:47	05:42 21:45	04:42 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:17 17:47	09:25 (C13) 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	09:33 (C13) 18:40	06:01 20:49	05:41 21:47	04:41 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:19 17:45	09:26 (C13) 15:48	08:51 15:44
29	08:20 16:39	07:11 17:52	09:35 (C13) 18:41	05:59 20:51	05:39 21:48	04:39 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:21 17:43	09:27 (C13) 15:47	08:51 15:45
30	08:18 16:41	07:03 17:59	09:37 (C13) 18:42	05:57 20:53	05:37 21:50	04:37 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:22 17:41	09:28 (C13) 15:46	08:51 15:46
31	08:17 16:43	07:01 18:04	09:38 (C13) 18:43	06:51 21:51	04:57 22:07	04:37 21:30	05:14 20:17	06:15 19:07	07:20 18:38	08:25 17:38	09:29 (C13) 15:44	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	226	943								542	644	
Sun reduction	0.13	0.20								0.26	0.08	
Oper. time red.	0.94	0.94								0.94	0.94	
Wind dir. red.	0.59	0.59								0.59	0.59	
Total reduction	0.07	0.11								0.14	0.05	
Total, real	17	106								78	30	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Spares - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (203)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:23	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:43
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:46 16:00	07:58 17:03	06:50 18:05	06:28 20:09	05:15 21:11	04:29 22:02	04:38 22:03	05:31 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:13	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:15	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:05	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:05 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:39
21	08:33 16:22	07:30 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	08:09 17:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	08:11 17:47	08:17 15:50	08:50 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	08:14 17:45	08:18 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:33	06:11 20:22	07:13 18:59	08:16 17:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Stacija Trepe 2 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (3)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:46	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
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 20:04	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 20:06	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:32 21:11	06:33 20:06	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 20:06	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:23 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 20:06	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 20:06	07:40 18:25	07:46 16:13	08:40 15:39
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 20:06	07:42 18:22	07:49 16:12	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 20:06	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 20:06	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 20:06	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 20:06	07:50 18:12	07:57 16:04	08:46 15:38
18	08:37 16:16	07:38 17:24	06:26 18:24	06:04 20:28	04:57 21:29	04:26 22:09	04:51 21:52	05:49 20:50	06:51 20:06	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:26 22:09	04:53 21:51	05:51 20:47	06:53 20:06	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:26 22:10	04:54 21:49	05:53 20:45	06:55 20:06	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 20:06	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 20:06	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 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		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 20:06	08:12 18:00	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 20:06	08:13 18:00	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 18:00		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Starumeni - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (121)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	07:59 (C13) 15:45
2	08:51 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:00 (C13) 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:02 (C13) 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:03 (C13) 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:07 (C13) 15:42
6	08:49 15:55	08:05 16:56	07:58 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	08:13 (C13) 15:41
7	08:48 15:56	08:03 16:59	07:57 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 20:09	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	07:56 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 20:06	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	07:55 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 20:03	07:34 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	07:54 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 20:03	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	07:52 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 20:03	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	07:50 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 20:03	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	07:48 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 20:03	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	07:45 18:15	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 20:03	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	07:43 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 20:03	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	07:41 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 20:03	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	07:38 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 20:03	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	07:36 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 20:03	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	07:34 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 20:03	07:55 18:07	07:55 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	07:31 18:28	06:01 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 20:03	07:57 18:04	07:57 16:01	08:48 15:39
21	08:33 16:22	07:31 17:30	07:29 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 20:03	07:59 18:02	07:59 16:01	08:49 15:39
22	08:32 16:24	07:28 17:32	07:26 18:32	05:54 20:37	04:50 21:37	04:25 22:10	04:58 21:46	05:57 20:40	06:59 20:03	08:01 18:00	08:01 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	07:24 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 20:03	08:03 18:02	08:03 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	07:21 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 20:03	08:05 18:02	08:05 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	07:19 18:38	05:47 20:43	04:45 21:42	04:26 22:10	05:03 21:41	06:03 20:32	07:05 20:03	08:07 18:02	08:07 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	07:16 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 20:03	08:09 18:02	08:09 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	07:14 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 20:03	08:11 18:02	08:11 15:49	08:51 15:43
28	08:22 16:36	07:13 17:45	07:11 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 20:03	08:13 18:02	08:13 15:48	08:51 15:44
29	08:20 16:39	07:11 17:48	07:09 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 20:03	08:15 18:02	08:15 15:47	08:51 15:45
30	08:19 16:41	07:10 17:49	07:08 18:48	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 20:03	08:17 18:02	08:17 15:46	08:51 15:46
31	08:17 16:43	07:09 17:51	07:07 18:51	05:33 20:51	04:37 21:51	04:29 22:09	05:14 21:30	06:15 20:17	07:17 20:03	08:19 18:02	08:19 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		364								297	75	
Sun reduction		0.20								0.26	0.08	
Oper. time red.		0.94								0.94	0.94	
Wind dir. red.		0.61								0.61	0.61	
Total reduction		0.12								0.15	0.05	
Total, real		42								44	4	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Stepi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (166)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:08 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Straumenini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (11)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48 35	10:12 (C13) 08:15 17:48	08:15 17:48	07:11 19:53	06:49 20:55	05:33 21:53	04:36 22:09	04:30 21:28	05:16 20:14	06:17 18:54	07:17 16:36	08:24 15:45
2	08:51 15:49 35	10:13 (C13) 08:13 17:50	08:13 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	08:26 15:44
3	08:50 15:51 35	10:13 (C13) 08:11 17:52	08:11 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	08:28 15:43
4	08:50 15:52 35	10:13 (C13) 08:09 17:54	08:09 17:54	07:03 19:59	06:41 21:02	05:26 21:57	04:33 22:07	04:33 21:22	05:21 20:06	06:23 18:46	07:23 16:29	08:29 15:42
5	08:49 15:53 35	10:14 (C13) 08:07 17:56	08:07 17:56	07:00 20:01	06:38 21:04	05:23 21:58	04:32 22:07	04:34 21:20	05:23 20:03	06:25 18:43	07:25 16:27	08:31 15:42
6	08:49 15:55 35	10:14 (C13) 08:05 17:58	08:05 17:58	06:58 20:03	06:35 21:06	05:21 21:59	04:31 22:06	04:35 21:17	05:25 20:01	06:27 18:40	07:27 16:25	08:32 15:41
7	08:48 15:56 35	10:15 (C13) 08:03 18:00	08:03 18:00	06:55 20:05	06:33 21:08	05:19 22:00	04:30 22:05	04:36 21:15	05:27 20:09	06:29 18:38	07:30 16:23	08:34 15:40
8	08:48 15:58 35	10:15 (C13) 08:01 18:03	08:01 18:03	06:53 20:08	06:30 21:10	05:17 22:01	04:29 22:04	04:37 21:13	05:29 20:03	06:31 18:35	07:32 16:21	08:35 15:40
9	08:47 15:59 36	10:15 (C13) 07:58 18:05	07:58 18:05	06:50 20:10	06:28 21:12	05:15 22:02	04:28 22:03	04:38 21:11	05:31 20:03	06:33 18:32	07:34 16:19	08:37 15:39
10	08:46 16:01 35	10:16 (C13) 07:56 18:07	07:56 18:07	06:47 20:12	06:25 21:14	05:13 22:03	04:28 22:03	04:39 21:11	05:33 20:03	06:35 18:32	07:36 16:19	08:38 15:39
11	08:45 16:03 36	10:16 (C13) 07:54 18:09	07:54 18:09	06:45 20:14	06:22 21:16	05:11 22:04	04:27 22:01	04:41 21:06	05:35 20:03	06:37 18:30	07:38 16:15	08:39 15:38
12	08:44 16:04 35	10:17 (C13) 07:52 18:11	07:52 18:11	06:42 20:16	06:20 21:18	05:08 22:05	04:27 22:00	04:42 21:04	05:37 20:03	06:39 18:25	07:40 16:13	08:40 15:38
13	08:43 16:06 35	10:17 (C13) 07:50 18:13	07:50 18:13	06:40 20:18	06:17 21:20	05:06 22:06	04:26 21:59	04:43 21:02	05:39 20:03	06:41 18:22	07:42 16:11	08:42 15:38
14	08:42 16:08 34	10:18 (C13) 07:47 18:15	07:47 18:15	06:37 20:20	06:14 21:22	05:04 22:07	04:26 21:58	04:45 20:59	05:41 20:03	06:43 18:19	07:44 16:09	08:43 15:38
15	08:41 16:10 34	10:19 (C13) 07:45 18:18	07:45 18:18	06:34 20:22	06:12 21:24	05:03 22:07	04:26 21:57	04:46 20:57	05:43 20:03	06:45 18:17	07:46 16:08	08:44 15:38
16	08:40 16:12 33	10:19 (C13) 07:43 18:20	07:43 18:20	06:32 20:24	06:09 21:26	05:01 22:08	04:25 21:55	04:48 20:54	05:45 20:03	06:47 18:14	07:48 16:06	08:45 15:38
17	08:39 16:14 33	10:20 (C13) 07:40 18:22	07:40 18:22	06:29 20:26	06:07 21:27	04:59 22:08	04:25 21:54	04:49 20:52	05:47 20:03	06:49 18:12	07:50 16:04	08:46 15:38
18	08:38 16:16 33	10:20 (C13) 07:38 18:24	07:38 18:24	06:26 20:28	06:04 21:29	04:57 22:09	04:25 21:52	04:51 20:50	05:49 20:03	06:51 18:09	07:52 16:02	08:46 15:38
19	08:36 16:18 32	10:20 (C13) 07:36 18:26	07:36 18:26	06:24 20:30	06:02 21:31	04:55 22:09	04:25 21:51	04:52 20:47	05:51 20:03	06:53 18:07	07:55 16:01	08:47 15:38
20	08:35 16:20 31	10:22 (C13) 07:33 18:28	07:33 18:28	06:21 20:33	05:59 21:33	04:53 22:10	04:25 21:49	05:53 20:45	06:55 20:03	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22 30	10:22 (C13) 07:31 18:30	07:31 18:30	06:18 20:35	05:57 21:35	04:52 22:10	04:25 21:48	05:55 20:42	06:57 20:03	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24 28	10:23 (C13) 07:28 18:32	07:28 18:32	06:16 20:37	05:54 21:37	04:50 22:10	04:25 21:46	05:57 20:40	06:59 20:03	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26 27	10:24 (C13) 07:26 18:34	07:26 18:34	06:13 20:39	05:52 21:38	04:48 22:10	04:26 21:45	05:59 20:37	07:01 20:03	08:03 17:57	08:09 15:55	08:50 15:42
24	08:29 16:28 25	10:26 (C13) 07:23 18:36	07:23 18:36	06:10 20:41	05:49 21:40	04:47 22:10	04:26 21:43	06:01 20:35	07:03 20:03	08:05 17:55	08:11 15:53	08:51 15:41
25	08:27 16:30 23	10:27 (C13) 07:21 18:38	07:21 18:38	06:07 20:43	05:47 21:42	04:45 22:10	04:26 21:41	06:03 20:32	07:05 20:03	08:07 17:52	08:13 15:52	08:50 15:41
26	08:26 16:32 19	10:29 (C13) 07:18 18:41	07:18 18:41	06:05 20:45	05:44 21:43	04:44 22:10	04:27 21:39	06:05 20:30	07:07 20:03	08:09 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34 16	10:31 (C13) 07:16 18:43	07:16 18:43	06:02 20:47	05:42 21:45	04:42 22:10	04:27 21:38	06:07 20:27	07:09 20:03	08:12 17:47	08:17 15:49	08:51 15:43
28	08:22 16:36 10	10:34 (C13) 07:13 18:45	07:13 18:45	05:59 20:49	05:40 21:47	04:41 22:10	04:28 21:36	06:09 20:24	07:11 20:03	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39	10:44 (C13)		06:57 20:51	05:37 21:48	04:40 22:10	05:10 21:34	06:11 20:22	07:13 20:03	08:16 17:43	08:21 15:47	08:51 15:45
30	08:18 16:41			06:54 20:53	05:35 21:50	04:38 22:09	05:12 21:32	06:13 20:19	07:15 20:03	08:18 17:40	08:22 15:46	08:51 15:46
31	08:17 16:43			06:51 19:51	05:37 21:51	04:37 21:51	05:14 21:30	06:15 20:17	07:20 20:03	08:20 16:38	08:21 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	865										479	1060
Sun reduction	0.13										0.08	0.07
Oper. time red.	0.94										0.94	0.94
Wind dir. red.	0.61										0.61	0.61
Total reduction	0.08										0.05	0.04
Total, real	66										23	43

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Strauti - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (57)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

		January		February		March		April		May		June		July		August		September		October		November		December
1	08:51		10:18 (C13)	08:15		10:27 (C13)	07:11	06:49		05:33		04:36		04:30		05:16		06:17		07:17		07:23		08:24
	15:48	36	10:54 (C13)	16:45	37	11:04 (C13)	17:48	19:53		20:55		21:53		22:09		21:28		20:14		18:54		16:36		15:45
2	08:50		10:19 (C13)	08:13		10:28 (C13)	07:08	06:46		05:30		04:35		04:31		05:18		06:19		07:19		07:25		08:26
	15:49	36	10:55 (C13)	16:47	35	11:03 (C13)	17:50	19:55		20:57		21:54		22:09		21:26		20:11		18:51		16:34		15:44
3	08:50		10:18 (C13)	08:11		10:30 (C13)	07:06	06:43		05:28		04:34		04:32		05:19		06:21		07:21		07:27		08:28
	15:51	37	10:55 (C13)	16:50	33	11:03 (C13)	17:52	19:57		21:00		21:55		22:08		21:24		20:09		18:48		16:32	13	10:10 (C13)
4	08:50		10:18 (C13)	08:09		10:31 (C13)	07:03	06:41		05:26		04:33		04:33		05:21		06:23		07:23		07:29		08:29
	15:52	37	10:55 (C13)	16:52	31	11:02 (C13)	17:54	19:59		21:02		21:57		22:07		21:22		20:06		18:46		16:29	20	10:06 (C13)
5	08:49		10:19 (C13)	08:07		10:33 (C13)	07:00	06:38		05:23		04:32		04:34		05:23		06:25		07:25		07:31		08:31
	15:53	38	10:57 (C13)	16:54	28	11:01 (C13)	17:56	20:01		21:04		21:58		22:07		21:20		20:03		18:43		16:27	24	10:04 (C13)
6	08:49		10:19 (C13)	08:05		10:34 (C13)	06:58	06:35		05:21		04:31		04:35		05:25		06:27		07:27		07:33		08:32
	15:55	38	10:57 (C13)	16:56	24	10:58 (C13)	17:58	20:03		21:06		21:59		22:06		21:17		20:01		18:40		16:25	27	10:03 (C13)
7	08:48		10:19 (C13)	08:03		10:37 (C13)	06:55	06:33		05:19		04:30		04:36		05:27		06:29		07:30		07:36		08:34
	15:56	39	10:58 (C13)	16:59	19	10:56 (C13)	18:00	20:05		21:08		22:00		22:05		21:15		19:58		18:38		16:23	31	10:02 (C13)
8	08:48		10:19 (C13)	08:01		10:41 (C13)	06:53	06:30		05:17		04:29		04:37		05:29		06:31		07:32		07:38		08:35
	15:58	40	10:59 (C13)	17:01	11	10:52 (C13)	18:03	20:08		21:10		22:01		22:04		21:13		19:55		18:35		16:21	34	10:04 (C13)
9	08:47		10:19 (C13)	07:58				06:50		06:28		05:15		04:28		04:38		05:31		06:33		07:34		07:40
	15:59	40	10:59 (C13)	17:03				18:05		20:10		21:12		22:02		22:03		21:11		19:53		18:32	35	10:34 (C13)
10	08:46		10:19 (C13)	07:56				18:47		06:25		05:13		04:28		04:39		05:33		06:35		07:36		07:42
	16:01	41	11:00 (C13)	17:05				18:07		20:12		21:14		22:03		22:02		21:08		19:50		18:30	37	10:36 (C13)
11	08:45		10:20 (C13)	07:54				06:45		06:22		05:11		04:27		04:41		05:35		06:37		07:38		07:44
	16:03	41	11:01 (C13)	17:08				18:06		20:14		21:16		22:04		22:01		21:06		19:47		18:27	38	10:36 (C13)
12	08:44		10:20 (C13)	07:52				06:40		06:20		05:08		04:27		04:42		05:39		06:41		07:42		07:46
	16:04	42	11:02 (C13)	17:10				18:11		20:16		21:18		22:05		22:00		21:04		19:45		18:25	39	10:37 (C13)
13	08:43		10:20 (C13)	07:49				06:40		06:17		05:06		04:26		04:43		05:39		06:41		07:42		07:49
	16:06	42	11:02 (C13)	17:12				18:13		20:18		21:20		22:06		21:59		21:02		19:42		18:22	40	10:38 (C13)
14	08:42		10:20 (C13)	07:47				06:37		06:14		05:04		04:26		04:45		05:41		06:43		07:44		07:51
	16:08	43	11:03 (C13)	17:14				18:15		20:20		21:22		22:07		21:58		20:59		19:39		18:19	41	10:38 (C13)
15	08:41		10:20 (C13)	07:45				06:34		06:12		05:03		04:26		04:46		05:43		06:45		07:46		07:53
	16:10	43	11:03 (C13)	17:17				18:18		20:22		21:24		22:07		21:57		20:57		19:37		18:17	42	10:38 (C13)
16	08:40		10:20 (C13)	07:43				06:32		06:09		05:01		04:25		04:48		05:45		06:47		07:48		07:55
	16:12	44	11:04 (C13)	17:19				18:20		20:24		21:25		22:08		21:55		20:54		19:34		18:14	43	10:40 (C13)
17	08:39		10:21 (C13)	07:40				06:29		06:07		04:59		04:25		04:49		05:47		06:49		07:50		07:57
	16:14	44	11:05 (C13)	17:21				18:22		20:26		21:27		22:08		21:54		20:52		19:31		18:12	44	10:40 (C13)
18	08:37		10:21 (C13)	07:38				06:26		06:04		04:57		04:25		04:51		05:49		06:51		07:52		07:59
	16:16	44	11:05 (C13)	17:23				18:24		20:28		21:29		22:09		21:52		20:50		19:29		18:09	45	10:41 (C13)
19	08:36		10:21 (C13)	07:36				06:24		06:02		04:54		04:25		04:50		05:47		06:49		07:50		08:01
	16:18	44	11:05 (C13)	17:26				18:26		20:30		21:31		22:09		21:51		20:47		19:26		18:07	46	10:41 (C13)
20	08:35		10:21 (C13)	07:33				06:21		05:59		04:53		04:25		04:54		05:53		06:55		07:57		08:03
	16:20	45	11:06 (C13)	17:28				18:28		20:33		21:33		22:10		21:49		20:45		19:23		18:04	47	10:41 (C13)
21	08:33		10:21 (C13)	07:31				06:18		05:57		04:52		04:25		04:56		05:55		06:57		07:59		08:05
	16:22	45	11:06 (C13)	17:30				18:30		20:35		21:35		22:10		21:48		20:42		19:20		18:02	48	10:41 (C13)
22	08:32		10:22 (C13)	07:28				06:16		05:54		04:50		04:25		04:57		05:57		06:59		08:01		08:07
	16:24	44	11:06 (C13)	17:32				18:32		20:37		21:37		22:10		21:46		20:40		19:18		17:59	49	10:42 (C13)
23	08:30		10:22 (C13)	07:26				06:13		05:52		04:48		04:26		04:59		05:59		07:01		08:03		08:09
	16:26	44	11:06 (C13)	17:34				18:34		20:39		21:38		22:10		21:45		20:37		19:15		17:57	50	10:42 (C13)
24	08:29		10:23 (C13)	07:23				06:10		05:49		04:47		04:26		05:01		06:01		07:03		08:05		08:11
	16:28	44	11:07 (C13)	17:37				18:36		20:41		21:40		22:10		21:43		20:35		19:12		17:55	51	10:42 (C13)
25	08:27		10:23 (C13)	07:21				06:07		05:47		04:45		04:26		05:03		06:03		07:05		07:07		08:13
	16:30	44	11:07 (C13)	17:39				18:38		20:43		21:42		22:10		21:41		20:32		19:10		17:52	52	10:42 (C13)
26	08:26		10:24 (C13)	07:18				06:05		05:44		04:44		04:27		05:04		06:05		07:07		07:10		08:15
	16:32	43	11:07 (C13)	17:41				18:41		20:45		21:43		22:10		21:39		20:30		19:07		16:50	53	10:42 (C13)
27	08:24		10:24 (C13)	07:16				06:02		05:42		04:42		04:27		05:06		06:07		07:09		07:12		08:17
	16:34	43	11:07 (C13)	17:43				18:43		20:47		21:45		22:10		21:38		20:27		19:04		16:47	54	10:43 (C13)
28	08:22		10:25 (C13)	07:13				05:59		05:40		04:41		04:28		05:08		06:09		07:11		07:14		08:19
	16:36	41	11:06 (C13)	17:45				18:45		20:49		21:47		22:10		21:36		20:24		19:02		16:45	55	10:43 (C13)
29	08:20		10:25 (C13)					06:57		05:37		04:40		04:29		05:10		06:11		07:13		07:16		08:21
	16:39	41	11:06 (C13)					18:47		20:51		21:48		22:10		21:34		20:22		18:59		16:43	56	10:43 (C13)
30	08:18		10:26 (C13)					06:54		05:35		04:38		04:29		05:12		06:13		07:15		07:18		08:22
	16:41	40	11:06 (C13)					19:49		20:53		21:50		22:09		21:32		20:19		18:56		16:40	57	10:43 (C13)
31	08:17		10:27 (C13)					06:51				04:37				05:14		06:15				07:20		08:25
	16:43	38	11:05 (C13)					19:51				21:51				21:30		20:17				16:38		15:47
Potential sun hours		235		266		366		426		508		529		529		469		385		324		247		216
Total, worst case		1281		218																	1076		1091	
Sun reduction		0.13		0.20																	0.08		0.07	
Oper. time red.		0.94		0.94																	0.94			

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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Strautini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (36)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48 24	09:44 (C13) 10:08 (C13) 16:45	08:15 10:03 (C13) 17:48	07:11 10:08 (C13) 17:48	06:49 19:53 20:55	05:33 21:53 22:09	04:36 21:53 22:09	04:30 21:28 20:14	05:16 21:28 18:54	06:17 20:14 16:36	07:17 18:54 16:36	07:23 16:36 15:45
2	08:51 15:49 24	09:45 (C13) 10:09 (C13) 16:47	08:13 10:09 (C13) 17:47	07:08 10:09 (C13) 17:47	06:46 19:55 20:58	05:30 21:54 22:09	04:35 21:54 22:09	04:31 21:26 20:11	05:18 21:26 18:51	06:19 20:11 16:34	07:19 18:51 16:34	07:25 16:34 15:44
3	08:50 15:51 25	09:44 (C13) 10:09 (C13) 16:50	08:11 10:09 (C13) 17:50	07:06 10:09 (C13) 17:50	06:43 19:57 21:00	05:28 21:55 22:08	04:34 21:55 22:08	04:32 21:24 20:09	05:19 21:24 18:48	06:21 20:09 16:32	07:21 18:48 16:32	07:27 16:32 15:43
4	08:50 15:52 26	09:44 (C13) 10:10 (C13) 16:52	08:09 10:10 (C13) 17:52	07:03 10:10 (C13) 17:52	06:41 19:59 21:02	05:26 21:57 22:07	04:33 21:57 22:07	04:33 21:22 20:06	05:21 21:22 18:46	06:23 20:06 16:29	07:23 18:46 16:29	07:29 16:29 15:42
5	08:49 15:53 26	09:45 (C13) 10:11 (C13) 16:54	08:07 10:11 (C13) 17:54	07:01 10:11 (C13) 17:54	06:38 19:56 20:51	05:23 21:58 22:07	04:32 21:58 22:07	04:34 21:20 20:03	05:23 21:20 18:43	06:25 20:03 16:27	07:25 18:43 16:27	07:31 16:27 15:42
6	08:49 15:55 27	09:45 (C13) 10:12 (C13) 16:56	08:05 10:12 (C13) 17:56	06:58 10:12 (C13) 17:56	06:35 19:58 21:06	05:21 21:59 22:06	04:31 21:59 22:06	04:35 21:27 20:01	05:25 21:27 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 27	09:45 (C13) 10:12 (C13) 16:59	08:03 10:12 (C13) 17:59	06:55 10:12 (C13) 17:59	06:33 19:58 21:08	05:19 22:00 22:05	04:30 22:05 21:15	04:36 21:15 19:58	05:27 21:15 18:38	06:29 21:15 16:23	07:30 18:38 16:23	07:36 16:23 15:40
8	08:48 15:58 28	09:45 (C13) 10:13 (C13) 17:01	08:01 10:13 (C13) 17:01	06:53 10:13 (C13) 17:01	06:30 19:58 21:10	05:17 22:01 22:04	04:29 22:04 21:13	04:37 21:13 19:55	05:29 21:13 18:35	06:31 21:13 16:21	07:32 18:35 16:21	07:38 16:21 15:40
9	08:47 15:59 29	09:45 (C13) 10:14 (C13) 17:03	07:58 10:14 (C13) 17:03	06:50 10:14 (C13) 17:03	06:28 19:59 21:12	05:15 22:02 22:03	04:28 22:03 21:11	04:38 21:11 19:53	05:31 21:11 18:32	06:33 21:11 16:19	07:34 18:32 16:19	07:40 16:19 15:39
10	08:46 16:01 29	09:45 (C13) 10:14 (C13) 17:05	07:56 10:14 (C13) 17:05	06:47 10:14 (C13) 17:05	06:25 19:59 21:14	05:13 22:03 22:02	04:28 22:02 21:08	04:39 21:08 19:50	05:33 21:08 18:30	06:35 21:08 16:17	07:36 18:30 16:17	07:42 16:17 15:39
11	08:45 16:03 29	09:46 (C13) 10:15 (C13) 17:08	07:54 10:15 (C13) 17:08	06:45 10:15 (C13) 17:08	06:22 19:59 21:16	05:11 22:04 22:01	04:27 22:01 21:06	04:41 21:06 19:47	05:35 21:06 18:27	06:37 21:06 16:15	07:38 18:27 16:15	07:44 16:15 15:38
12	08:44 16:04 30	09:46 (C13) 10:16 (C13) 17:10	07:52 10:16 (C13) 17:10	06:42 10:16 (C13) 17:10	06:20 19:59 21:18	05:08 22:05 22:00	04:26 22:00 21:04	04:42 21:04 19:45	05:37 21:04 18:25	06:39 21:04 16:13	07:40 18:25 16:13	07:46 16:13 15:38
13	08:43 16:06 30	09:46 (C13) 10:16 (C13) 17:12	07:50 10:16 (C13) 17:12	06:40 10:16 (C13) 17:12	06:17 19:59 21:20	05:06 22:06 21:59	04:26 21:59 21:02	04:43 21:02 19:42	05:39 21:02 18:22	06:41 21:02 16:11	07:42 18:22 16:11	07:49 16:11 15:38
14	08:42 16:08 31	09:46 (C13) 10:17 (C13) 17:14	07:47 10:17 (C13) 17:14	06:37 10:17 (C13) 17:14	06:15 19:59 21:22	05:04 22:07 21:58	04:26 21:58 20:59	04:45 20:59 19:39	05:41 20:59 18:20	06:43 20:59 16:09	07:44 18:20 16:09	07:51 16:09 15:38
15	08:41 16:10 31	09:47 (C13) 10:18 (C13) 17:17	07:45 10:18 (C13) 17:17	06:34 10:18 (C13) 17:17	06:12 19:59 21:24	05:03 22:07 21:57	04:26 21:57 20:57	04:46 20:57 19:37	05:43 20:57 18:17	06:45 20:57 16:08	07:46 18:17 16:08	07:53 16:08 15:38
16	08:40 16:12 31	09:47 (C13) 10:18 (C13) 17:19	07:43 10:18 (C13) 17:19	06:32 10:18 (C13) 17:19	06:09 19:59 21:26	05:01 22:08 21:55	04:25 21:55 20:54	04:48 20:54 19:34	05:45 20:54 18:14	06:47 20:54 16:06	07:48 18:14 16:06	07:55 16:06 15:38
17	08:39 16:14 31	09:47 (C13) 10:18 (C13) 17:21	07:40 10:18 (C13) 17:21	06:29 10:18 (C13) 17:21	06:07 19:59 21:27	04:59 22:09 21:54	04:25 21:54 20:52	04:49 20:52 19:31	05:47 20:52 18:12	06:49 20:52 16:04	07:50 18:12 16:04	07:57 16:04 15:38
18	08:38 16:16 31	09:47 (C13) 10:18 (C13) 17:23	07:38 10:18 (C13) 17:23	06:26 10:18 (C13) 17:23	06:04 19:59 21:29	04:57 22:09 21:52	04:51 21:52 20:50	05:49 21:52 19:29	05:51 21:52 18:09	06:51 21:52 16:02	07:52 18:09 16:02	07:59 16:02 15:38
19	08:36 16:18 31	09:47 (C13) 10:18 (C13) 17:26	07:36 10:18 (C13) 17:26	06:24 10:18 (C13) 17:26	06:02 19:59 21:31	04:55 22:09 21:51	04:52 21:51 20:47	05:51 20:47 19:26	06:53 20:47 18:07	06:53 20:47 16:01	07:55 18:07 16:01	08:01 16:01 15:38
20	08:35 16:20 31	09:48 (C13) 10:19 (C13) 17:28	07:33 10:19 (C13) 17:28	06:21 10:19 (C13) 17:28	06:01 19:59 21:33	04:53 22:10 21:49	04:54 21:49 20:45	05:53 20:45 19:23	06:55 20:45 18:04	06:55 20:45 15:59	08:03 18:04 15:59	08:03 15:59 15:39
21	08:33 16:22 30	09:49 (C13) 10:19 (C13) 17:30	07:31 10:19 (C13) 17:30	06:18 10:19 (C13) 17:30	05:57 19:59 21:35	04:52 22:10 21:48	04:56 21:48 20:42	05:55 20:42 19:20	06:57 20:42 18:02	06:57 20:42 15:58	08:05 18:02 15:58	08:05 15:58 15:39
22	08:32 16:24 30	09:49 (C13) 10:19 (C13) 17:32	07:28 10:19 (C13) 17:32	06:16 10:19 (C13) 17:32	05:54 19:59 21:37	04:50 22:10 21:46	04:57 21:46 20:40	05:57 20:40 19:18	06:59 20:40 17:59	06:59 20:40 15:56	08:09 17:59 15:56	08:09 15:56 15:39
23	08:30 16:26 29	09:49 (C13) 10:18 (C13) 17:34	07:26 10:18 (C13) 17:34	06:13 10:18 (C13) 17:34	05:52 19:59 21:38	04:48 22:10 21:45	04:59 21:45 20:37	05:59 20:37 19:15	07:01 20:37 17:57	07:01 20:37 15:55	08:09 17:57 15:55	08:09 15:55 15:39
24	08:29 16:28 28	09:51 (C13) 10:19 (C13) 17:37	07:23 10:19 (C13) 17:37	06:10 10:19 (C13) 17:37	05:49 19:59 21:40	04:47 22:10 21:43	05:01 21:43 20:35	06:01 20:35 19:12	07:03 20:35 17:55	07:03 20:35 15:53	08:11 17:55 15:53	08:11 15:53 15:39
25	08:27 16:30 28	09:51 (C13) 10:19 (C13) 17:39	07:21 10:19 (C13) 17:39	06:07 10:19 (C13) 17:39	05:47 19:59 21:42	04:45 22:10 21:41	05:03 21:41 20:32	06:03 20:32 19:10	07:05 20:32 17:52	07:05 20:32 15:52	08:13 17:52 15:52	08:13 15:52 15:39
26	08:26 16:32 26	09:52 (C13) 10:18 (C13) 17:41	07:18 10:18 (C13) 17:41	06:05 10:18 (C13) 17:41	05:44 19:59 21:43	04:44 22:10 21:39	05:04 21:39 20:30	06:05 20:30 19:07	07:07 20:30 17:50	07:07 20:30 15:51	08:15 17:50 15:51	08:15 15:51 15:39
27	08:24 16:34 25	09:53 (C13) 10:18 (C13) 17:43	07:16 10:18 (C13) 17:43	06:02 10:18 (C13) 17:43	05:42 19:59 21:45	04:42 22:10 21:38	05:06 21:38 20:27	06:07 20:27 19:04	07:09 20:27 17:47	07:09 20:27 15:49	08:17 17:47 15:49	08:17 15:49 15:39
28	08:22 16:36 23	09:54 (C13) 10:17 (C13) 17:45	07:13 10:17 (C13) 17:45	05:59 10:17 (C13) 17:45	05:40 19:59 21:47	04:41 22:10 21:36	05:08 21:36 20:24	06:09 20:24 19:02	07:11 20:24 16:45	07:11 20:24 15:48	08:19 16:45 15:48	08:19 15:48 15:39
29	08:20 16:39 20	09:56 (C13) 10:16 (C13) 17:47	07:10 10:16 (C13) 17:47	05:57 10:16 (C13) 17:47	05:37 19:59 21:48	04:40 22:10 21:34	04:29 21:34 20:22	05:10 20:22 18:59	06:11 20:22 16:43	07:13 20:22 15:47	08:21 16:43 15:47	08:21 15:47 15:39
30	08:19 16:41 17	09:58 (C13) 10:15 (C13) 17:49	07:08 10:15 (C13) 17:49	05:54 10:15 (C13) 17:49	05:35 19:59 21:50	04:38 22:09 21:32	04:38 21:32 20:19	05:12 20:19 18:56	06:13 20:19 16:41	07:15 20:19 15:46	08:22 16:41 15:46	08:22 15:46 15:39
31	08:17 16:43 13	10:00 (C13) 10:13 (C13)	07:06 10:13 (C13)	06:51 10:13 (C13)	05:31 19:59 21:51	04:37 22:09 21:30	05:14 21:30 20:17	06:15 20:17 16:38	07:16 20:17 15:47	07:20 20:17 15:47	08:24 15:47 15:47	08:24 15:47 15:39
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	840	5									552	712
Sun reduction	0.13	0.20									0.08	0.07
Oper. time red.	0.94	0.94									0.94	0.94
Wind dir. red.	0.61	0.61									0.61	0.61
Total reduction	0.08	0.12									0.05	0.04
Total, real	64	1									26	29

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Suš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (10)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January		February	March	April	May	June	July	August	September	October	November	December					
1	08:51		10:50 (C17)	08:15	07:11	06:49	05:32	04:35	04:30	05:15	06:17	07:17	07:23	08:24	10:37 (C17)			
	15:48	43	11:33 (C17)	16:45	17:47	19:53	20:55	21:53	22:09	21:28	20:14	18:53	16:36	15:45	43	11:20 (C17)		
2	08:51		10:51 (C17)	08:13	07:08	06:46	05:30	04:34	04:30	05:17	06:19	07:19	07:25	08:26		10:37 (C17)		
	15:49	43	11:34 (C17)	16:47	17:50	19:55	20:57	21:54	22:09	21:26	20:11	18:51	16:34	15:44	44	11:21 (C17)		
3	08:50		10:51 (C17)	08:11	07:06	06:43	05:28	04:33	04:31	05:19	06:21	07:21	07:27	08:28		10:38 (C17)		
	15:50	43	11:34 (C17)	16:49	17:52	19:57	21:00	21:55	22:08	21:24	20:09	18:48	16:31	15:43	43	11:21 (C17)		
4	08:50		10:51 (C17)	08:09	07:03	06:41	05:25	04:32	04:32	05:21	06:23	07:23	07:29	08:29		10:37 (C17)		
	15:52	44	11:35 (C17)	16:52	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:45	16:29	15:42	44	11:21 (C17)		
5	08:49		10:52 (C17)	08:07	07:00	06:38	05:23	04:31	04:33	05:23	06:25	07:25	07:31	08:31		10:38 (C17)		
	15:53	44	11:36 (C17)	16:54	17:56	20:01	21:04	21:58	22:07	21:19	20:03	18:43	16:27	15:41	43	11:21 (C17)		
6	08:49		10:52 (C17)	08:05	06:58	06:35	05:21	04:30	04:34	05:25	06:27	07:27	07:33	08:32		10:39 (C17)		
	15:54	44	11:36 (C17)	16:56	17:58	20:03	21:06	21:59	22:06	21:17	20:01	18:40	16:25	15:41	43	11:22 (C17)		
7	08:48		10:53 (C17)	08:03	06:55	06:33	05:19	04:30	04:35	05:27	06:29	07:29	07:36	08:34		10:38 (C17)		
	15:56	43	11:36 (C17)	16:58	18:00	20:05	21:08	22:00	22:05	21:15	19:58	18:38	16:23	15:40	44	11:22 (C17)		
8	08:48		10:53 (C17)	08:00	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:31	07:38	08:35		10:39 (C17)		
	15:58	44	11:37 (C17)	17:01	18:02	20:07	21:10	22:01	22:04	21:13	19:55	18:35	16:21	15:39	44	11:23 (C17)		
9	08:47		10:53 (C17)	07:58	06:50	06:27	05:14	04:28	04:38	05:31	06:33	07:34	07:40	08:37		10:40 (C17)		
	15:59	44	11:37 (C17)	17:03	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:32	16:19	15:39	43	11:23 (C17)		
10	08:46		10:54 (C17)	07:56	06:47	06:25	05:12	04:28	04:39	05:33	06:35	07:36	07:42	08:38		10:40 (C17)		
	16:01	44	11:38 (C17)	17:05	18:07	20:12	21:14	22:03	22:02	21:08	19:50	18:30	16:17	15:38	43	11:23 (C17)		
11	08:45		10:55 (C17)	07:54	06:45	06:22	05:10	04:27	04:40	05:35	06:37	07:38	07:44	08:39		10:40 (C17)		
	16:02	43	11:38 (C17)	17:07	18:09	20:14	21:16	22:04	22:01	21:06	19:47	18:27	16:15	8	10:57 (C17)	15:38	43	11:23 (C17)
12	08:44		10:55 (C17)	07:52	06:42	06:19	05:08	04:26	04:42	05:37	06:39	07:40	07:46	08:40		10:41 (C17)		
	16:04	44	11:39 (C17)	17:10	18:11	20:16	21:18	22:05	22:00	21:04	19:45	18:24	16:13	16	11:01 (C17)	15:38	44	11:25 (C17)
13	08:43		10:55 (C17)	07:49	06:39	06:17	05:06	04:26	04:43	05:39	06:41	07:42	07:49	08:42		10:42 (C17)		
	16:06	43	11:38 (C17)	17:12	18:13	20:18	21:20	22:06	21:59	21:01	19:42	18:22	16:11	21	11:04 (C17)	15:38	43	11:25 (C17)
14	08:42		10:56 (C17)	07:47	06:37	06:14	05:04	04:26	04:44	05:41	06:43	07:44	07:51	08:41		10:43 (C17)		
	16:08	43	11:39 (C17)	17:14	18:15	20:20	21:22	22:07	21:58	20:59	19:39	18:19	16:09	25	11:06 (C17)	15:38	43	11:25 (C17)
15	08:41		10:57 (C17)	07:45	06:34	06:12	05:02	04:25	04:46	05:43	06:45	07:46	07:53	08:44		10:42 (C17)		
	16:10	42	11:39 (C17)	17:16	18:17	20:22	21:24	22:07	21:57	20:57	19:37	18:17	16:07	28	11:07 (C17)	15:37	43	11:25 (C17)
16	08:40		10:57 (C17)	07:43	06:31	06:09	05:00	04:25	04:47	05:45	06:47	07:48	07:55	08:45		10:43 (C17)		
	16:12	42	11:39 (C17)	17:19	18:19	20:24	21:25	22:08	21:55	20:54	19:34	18:14	16:06	30	11:09 (C17)	15:37	43	11:26 (C17)
17	08:39		10:58 (C17)	07:40	06:29	06:07	04:58	04:25	04:49	05:47	06:49	07:50	07:57	08:46		10:44 (C17)		
	16:13	41	11:39 (C17)	17:21	18:22	20:26	21:27	22:09	21:54	20:52	19:31	18:12	16:04	32	11:10 (C17)	15:38	42	11:26 (C17)
18	08:37		10:58 (C17)	07:38	06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:52	07:59	08:46		10:44 (C17)		
	16:15	41	11:39 (C17)	17:23	18:24	20:28	21:29	22:09	21:52	20:49	19:28	18:09	16:02	34	11:12 (C17)	15:38	43	11:27 (C17)
19	08:36		10:59 (C17)	07:35	06:23	06:01	04:55	04:25	04:52	05:51	06:53	07:54	08:01	08:47		10:45 (C17)		
	16:17	40	11:39 (C17)	17:25	18:26	20:30	21:31	22:09	21:51	20:47	19:26	18:07	16:00	36	11:13 (C17)	15:38	42	11:27 (C17)
20	08:35		11:00 (C17)	07:33	06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:03	08:48		10:45 (C17)		
	16:19	39	11:39 (C17)	17:28	18:28	20:32	21:33	22:10	21:49	20:45	19:23	18:04	15:59	37	11:13 (C17)	15:38	42	11:27 (C17)
21	08:33		11:00 (C17)	07:31	06:18	05:56	04:51	04:25	04:55	05:55	06:57	07:59	08:05	08:49		10:46 (C17)		
	16:21	39	11:39 (C17)	17:30	18:30	20:35	21:35	22:10	21:48	20:42	19:20	18:02	15:57	39	11:14 (C17)	15:39	42	11:28 (C17)
22	08:32		11:01 (C17)	07:28	06:15	05:54	04:50	04:25	04:57	05:57	06:59	08:01	08:07	08:49		10:46 (C17)		
	16:23	37	11:38 (C17)	17:32	18:32	20:37	21:37	22:10	21:46	20:40	19:18	17:59	15:56	39	11:15 (C17)	15:39	42	11:28 (C17)
23	08:30		11:02 (C17)	07:26	06:13	05:51	04:48	04:25	04:59	05:59	07:01	08:03	08:09	08:50		10:47 (C17)		
	16:26	36	11:38 (C17)	17:34	18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:54	40	11:16 (C17)	15:40	42	11:29 (C17)
24	08:29		11:04 (C17)	07:23	06:10	05:49	04:46	04:26	05:01	06:01	07:03	08:05	08:11	08:51		10:47 (C17)		
	16:28	34	11:38 (C17)	17:36	18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:54	15:53	41	11:16 (C17)	15:40	42	11:29 (C17)
25	08:27		11:05 (C17)	07:21	06:07	05:47	04:45	04:26	05:02	06:03	07:05	07:07	08:13	08:50		10:47 (C17)		
	16:30	32	11:37 (C17)	17:39	18:38	20:43	21:42	22:10	21:41	20:32	19:10	16:52	15:52	42	11:17 (C17)	15:41	43	11:30 (C17)
26	08:26		11:06 (C17)	07:18	06:05	05:44	04:43	04:26	05:04	06:05	07:07	07:09	08:15	08:51		10:47 (C17)		
	16:32	30	11:36 (C17)	17:41	18:40	20:45	21:43	22:10	21:39	20:29	19:07	16:50	15:50	42	11:18 (C17)	15:42	43	11:30 (C17)
27	08:24		11:07 (C17)	07:16	06:02	05:42	04:42	04:27	05:06	06:07	07:09	07:12	08:17	08:51		10:48 (C17)		
	16:34	28	11:35 (C17)	17:43	18:42	20:47	21:45	22:10	21:38	20:27	19:04	16:47	15:49	42	11:18 (C17)	15:42	42	11:30 (C17)
28	08:22		11:09 (C17)	07:13	05:59	05:39	04:41	04:28	05:08	06:09	07:11	07:14	08:19	08:51		10:48 (C17)		
	16:36	25	11:34 (C17)	17:45	18:45	20:49	21:47	22:10	21:36	20:24	19:01	16:45	15:48	43	11:19 (C17)	15:43	43	11:31 (C17)
29	08:20		11:11 (C17)		06:57	05:37	04:39	04:28	05:10	06:11	07:13	07:16	08:21	08:51		10:49 (C17)		
	16:38	21	11:32 (C17)		19:47	20:51	21:48	22:10	21:34	20:22	18:59	16:43	15:47	43	11:19 (C17)	15:44	43	11:32 (C17)
30	08:18		11:14 (C17)		06:54	05:35	04:38	04:29	05:12	06:13	07:15	07:18	08:22	08:51		10:49 (C17)		
	16:41	16	11:30 (C17)		19:49	20:53	21:50	22:09	21:32	20:19	18:56	16:40	15:46	44	11:20 (C17)	15:45	43	11:32 (C17)
31	08:17		11:19 (C17)		06:51		04:37		05:13	06:15		07:20		08:51		10:50 (C17)		
	16:43	6	11:25 (C17)		19:51		21:51		21:30	20:17		16:38		15:46	43	11:33 (C17)		
Potential sun hours	235			266	366	426	508	529	529	469	385	324	247	216				
Total, worst case		1158											682		1330			
Sun reduction		0.13											0.08		0.07			
Oper. time red.		0.94											0.94		0.94			
Wind dir. red.		0.60											0.60		0.60			
Total reduction		0.08											0.05		0.04			
Total, real	87												32		53			

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Sipolini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (86)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

		January	February	March	April		May	June	July	August		September		October	November	December
	1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53		05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28		06:17 20:14	06:47 (C14) 17	07:17 18:54	07:23 16:36	08:24 15:45
	2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55		05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26		06:19 20:11	06:50 (C14) 11	07:19 18:51	07:25 16:34	08:26 15:44
	3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57		05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24		06:21 20:09		07:21 18:48	07:27 16:32	08:28 15:43
	4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59		05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22		06:23 20:06		07:23 18:46	07:29 16:30	08:29 15:43
	5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01		05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20		06:25 20:04		07:25 18:43	07:31 16:27	08:31 15:42
	6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03		05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17		06:27 20:01		07:28 18:40	07:33 16:25	08:32 15:41
	7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06		05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15		06:29 19:58		07:30 18:38	07:36 16:23	08:34 15:40
	8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08		05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13		06:31 19:56		07:32 18:35	07:38 16:21	08:35 15:40
	9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10		05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11		06:33 19:53		07:34 18:33	07:40 16:19	08:37 15:39
	10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	06:51 (C14) 11	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	06:48 (C14) 17	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	06:46 (C14) 20	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04		06:39 19:45		07:40 18:25	07:46 16:13	08:40 15:38
	13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	06:45 (C14) 22	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	07:07 (C14) 24	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	06:43 (C14) 25	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:55 (C14) 9	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	06:42 (C14) 26	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:53 (C14) 14	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	06:42 (C14) 26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:51 (C14) 18	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	06:41 (C14) 27	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:50 (C14) 20	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	06:41 (C14) 27	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:47 (C14) 23	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	06:41 (C14) 27	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:47 (C14) 24	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	06:41 (C14) 26	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:46 (C14) 25	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	06:41 (C14) 25	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:45 (C14) 26	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	06:41 (C14) 24	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	06:45 (C14) 27	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	06:42 (C14) 22	04:47 21:40	04:26 22:10	04:59 21:43	05:59 20:35	06:45 (C14) 27	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	06:43 (C14) 20	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	06:44 (C14) 27	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	06:45 (C14) 17	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	06:44 (C14) 27	07:07 19:07		08:10 16:50	08:15 15:51	08:51 15:42
	27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:46 (C14) 13	04:42 21:45	04:28 22:10	05:06 21:38	06:07 20:27	06:45 (C14) 26	07:09 19:04		08:12 16:48	08:17 15:50	08:51 15:43
	28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	06:49 (C14) 7	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	06:44 (C14) 25	07:11 19:02		08:14 16:45	08:19 15:48	08:51 15:44
	29	08:20 16:39	07:11 17:47	06:57 18:47	05:37 20:51	06:56 (C14)	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	06:44 (C14) 24	07:13 18:59		08:16 16:43	08:21 15:47	08:51 15:45
	30	08:19 16:41	07:09 17:54	06:54 18:49	05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	06:13 20:19	06:45 (C14) 22	07:15 18:56		08:18 16:41	08:22 15:46	08:51 15:46
	31	08:17 16:43	07:07 17:51	06:52 18:51	05:31 20:51	04:37 21:51	04:27 22:10	05:14 21:30	06:15 20:17	06:15 20:17	06:46 (C14) 19	07:17 19:05		08:20 16:38	08:25 15:47	08:51 15:47
Potential sun hours		235	266	366	426		508	528	529	469		385		324	247	216
Total, worst case					406							383		28		
Sun reduction					0.50							0.50		0.43		
Oper. time red.					0.94							0.94		0.94		
Wind dir. red.					0.66							0.66		0.66		
Total reduction					0.31							0.31		0.26		
Total, real					126							118		7		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Mezares_AB211223

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Turaiki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (162)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	07:53 (C13)	07:23
	22:09	21:28	20:14	18:54	24 08:17 (C13)	16:36
2	04:31	05:18	06:19	07:19	07:54 (C13)	07:25
	22:09	21:26	20:11	18:51	21 08:15 (C13)	16:34
3	04:32	05:20	06:21	07:21	07:56 (C13)	07:27
	22:08	21:24	20:09	18:48	17 08:13 (C13)	16:32
4	04:33	05:21	06:23	07:23	07:59 (C13)	07:29
	22:07	21:22	20:06	18:46	10 08:09 (C13)	16:29
5	04:34	05:23	06:25	07:25		07:31
	22:07	21:20	20:03	18:43		16:27
6	04:35	05:25	06:27	07:28		07:33
	22:06	21:17	20:01	18:40		16:25
7	04:36	05:27	06:29	07:30		07:36
	22:05	21:15	19:58	18:38		16:23
8	04:37	05:29	06:31	07:32		07:38
	22:04	21:13	19:56	18:35		16:21
9	04:38	05:31	06:33	07:34		07:40
	22:03	21:11	19:53	18:32		16:19
10	04:39	05:33	06:35	07:36		07:42
	22:02	21:08	19:50	18:30		16:17
11	04:41	05:35	06:37	07:38		07:44
	22:01	21:06	19:47	18:27		16:15
12	04:42	05:37	06:39	07:40		07:46
	22:00	21:04	19:45	18:25		16:13
13	04:43	05:39	06:41	07:42		07:49
	21:59	21:02	19:42	18:22		16:11
14	04:45	05:41	06:43	08:08 (C13)	07:44	11 09:48 (C14)
	21:58	20:59	19:39	08:13 (C13)	18:20	09:35 (C14)
15	04:46	05:43	06:45	08:03 (C13)	07:46	15 09:50 (C14)
	21:57	20:57	19:37	08:18 (C13)	18:17	09:33 (C14)
16	04:48	05:45	06:47	08:01 (C13)	07:48	19 09:52 (C14)
	21:55	20:54	19:34	08:20 (C13)	18:14	15:38
17	04:49	05:47	06:49	07:59 (C13)	07:50	22 09:54 (C14)
	21:54	20:52	19:31	08:21 (C13)	18:12	15:38
18	04:51	05:49	06:51	07:57 (C13)	07:52	24 09:55 (C14)
	21:52	20:50	19:29	08:23 (C13)	18:09	15:38
19	04:53	05:51	06:53	07:56 (C13)	07:55	25 09:56 (C14)
	21:51	20:47	19:26	08:23 (C13)	18:07	15:38
20	04:54	05:53	06:55	07:54 (C13)	07:57	27 09:57 (C14)
	21:49	20:45	19:23	08:24 (C13)	18:04	15:38
21	04:56	05:55	06:57	07:54 (C13)	07:59	28 09:58 (C14)
	21:48	20:42	19:21	08:24 (C13)	18:02	15:39
22	04:58	05:57	06:59	07:53 (C13)	08:01	29 09:59 (C14)
	21:46	20:40	19:18	08:24 (C13)	18:00	15:39
23	04:59	05:59	07:01	07:52 (C13)	08:03	29 09:59 (C14)
	21:45	20:37	19:15	08:24 (C13)	17:57	15:40
24	05:01	06:01	07:03	07:52 (C13)	08:05	30 10:00 (C14)
	21:43	20:35	19:12	08:24 (C13)	17:55	15:41
25	05:03	06:03	07:05	07:51 (C13)	07:07	30 09:30 (C14)
	21:41	20:32	19:10	08:23 (C13)	16:52	15:41
26	05:05	06:05	07:07	07:51 (C13)	07:10	30 10:00 (C14)
	21:39	20:30	19:07	08:23 (C13)	16:50	15:42
27	05:06	06:07	07:09	07:51 (C13)	07:12	31 10:02 (C14)
	21:38	20:27	19:04	08:22 (C13)	16:48	15:43
28	05:08	06:09	07:11	07:51 (C13)	07:14	31 10:02 (C14)
	21:36	20:24	19:02	08:21 (C13)	16:45	15:44
29	05:10	06:11	07:13	07:52 (C13)	07:16	31 10:02 (C14)
	21:34	20:22	18:59	08:20 (C13)	16:43	15:45
30	05:12	06:13	07:15	07:52 (C13)	07:18	31 09:32 (C14)
	21:32	20:19	18:56	08:19 (C13)	16:41	15:46
31	05:14	06:15			07:20	10:03 (C14)
	21:30	20:17			16:38	08:51
Potential sun hours	529	469	385	324	247	216
Total, worst case			449	72	474	844
Sun reduction			0.43	0.26	0.08	0.07
Oper. time red.			0.94	0.94	0.94	0.94
Wind dir. red.			0.62	0.62	0.61	0.61
Total reduction			0.25	0.15	0.05	0.04
Total, real			112	11	22	34

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Tireli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (99)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:41 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:52 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:37	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February		March	April		May			June
1	08:51		10:56 (C13)	08:15	07:11	06:49			05:32		06:18 (C1)	04:36
	15:48	35	11:31 (C13)	16:45	17:48	19:53			20:55	21	06:39 (C1)	21:53
2	08:50		10:57 (C13)	08:13	07:08	06:46			05:30		06:19 (C1)	04:35
	15:49	35	11:32 (C13)	16:47	17:50	19:55			20:57	19	06:38 (C1)	21:54
3	08:50		10:57 (C13)	08:11	07:06	06:43			05:28		06:19 (C1)	04:34
	15:51	34	11:31 (C13)	16:50	17:52	19:57			21:00	18	06:37 (C1)	21:55
4	08:50		10:57 (C13)	08:09	07:03	06:41			05:26		06:21 (C1)	04:33
	15:52	34	11:31 (C13)	16:52	17:54	19:59			21:02	15	06:36 (C1)	21:57
5	08:49		10:59 (C13)	08:07	07:00	06:38			05:23		06:22 (C1)	04:32
	15:53	33	11:32 (C13)	16:54	17:56	20:01			21:04	12	06:34 (C1)	21:58
6	08:49		10:59 (C13)	08:05	06:58	06:35			05:21		06:25 (C1)	04:31
	15:55	33	11:32 (C13)	16:56	17:58	20:03			21:06	6	06:31 (C1)	21:59
7	08:48		11:00 (C13)	08:03	06:55	06:33			05:19			04:30
	15:56	32	11:32 (C13)	16:59	18:00	20:05			21:08			22:00
8	08:48		11:00 (C13)	08:01	06:53	06:30			05:17			04:29
	15:58	32	11:32 (C13)	17:01	18:03	20:08			21:10			22:01
9	08:47		11:01 (C13)	07:58	06:50	06:28			05:15			04:28
	15:59	32	11:33 (C13)	17:03	18:05	20:10			21:12			22:02
10	08:46		11:02 (C13)	07:56	06:47	06:25			05:13			04:28
	16:01	31	11:33 (C13)	17:05	18:07	20:12			21:14			22:03
11	08:45		11:03 (C13)	07:54	06:45	06:22			05:10			04:27
	16:03	30	11:33 (C13)	17:08	18:09	20:14			21:16			22:04
12	08:44		11:04 (C13)	07:52	06:42	06:20			05:08			04:27
	16:04	29	11:33 (C13)	17:10	18:11	20:16			21:18			22:05
13	08:43		11:04 (C13)	07:50	06:40	06:17			05:06			04:26
	16:06	28	11:32 (C13)	17:12	18:13	20:18			21:20			22:06
14	08:42		11:06 (C13)	07:47	06:37	06:14			05:04			04:26
	16:08	26	11:32 (C13)	17:14	18:15	20:20			21:22			22:07
15	08:41		11:07 (C13)	07:45	06:34	06:12			05:02			04:26
	16:10	25	11:32 (C13)	17:17	18:18	20:22			21:24			22:07
16	08:40		11:08 (C13)	07:43	06:32	06:09			05:01			04:25
	16:12	23	11:31 (C13)	17:19	18:20	20:24			21:25			22:08
17	08:39		11:10 (C13)	07:40	06:29	06:07			04:59			04:25
	16:14	20	11:30 (C13)	17:21	18:22	20:26			21:27			22:08
18	08:37		11:11 (C13)	07:38	06:26	06:04			04:57			04:25
	16:16	18	11:29 (C13)	17:23	18:24	20:28			21:29			22:09
19	08:36		11:13 (C13)	07:36	06:24	06:02		06:28 (C1)	04:55			04:25
	16:18	14	11:27 (C13)	17:25	18:26	20:30	7	06:35 (C1)	21:31			22:09
20	08:35		11:17 (C13)	07:33	06:21	05:59		06:25 (C1)	04:53			04:25
	16:20	8	11:25 (C13)	17:28	18:28	20:33	12	06:37 (C1)	21:33			22:10
21	08:33			07:31	06:18	05:57		06:23 (C1)	04:52			04:25
	16:22			17:30	18:30	20:35	16	06:39 (C1)	21:35			22:10
22	08:32			07:28	06:16	05:54		06:21 (C1)	04:50			04:25
	16:24			17:32	18:32	20:37	19	06:40 (C1)	21:37			22:10
23	08:30			07:26	06:13	05:52		06:19 (C1)	04:48			04:26
	16:26			17:34	18:34	20:39	21	06:40 (C1)	21:38			22:10
24	08:29			07:23	06:10	05:49		06:19 (C1)	04:47			04:26
	16:28			17:37	18:36	20:41	22	06:41 (C1)	21:40			22:10
25	08:27			07:21	06:07	05:47		06:18 (C1)	04:45			04:26
	16:30			17:39	18:38	20:43	23	06:41 (C1)	21:42			22:10
26	08:26			07:18	06:05	05:44		06:17 (C1)	04:44			04:27
	16:32			17:41	18:41	20:45	23	06:40 (C1)	21:43			22:10
27	08:24			07:16	06:02	05:42		06:17 (C1)	04:42			04:27
	16:34			17:43	18:43	20:47	24	06:41 (C1)	21:45			22:10
28	08:22			07:13	05:59	05:40		06:17 (C1)	04:41			04:28
	16:36			17:45	18:45	20:49	24	06:41 (C1)	21:47			22:10
29	08:20				06:57	05:37		06:18 (C1)	04:39			04:28
	16:39				19:47	20:51	22	06:40 (C1)	21:48			22:10
30	08:18				06:54	05:35		06:17 (C1)	04:38			04:29
	16:41				19:49	20:53	22	06:39 (C1)	21:50			22:09
31	08:17				06:51				04:37			
	16:43				19:51				21:51			
Potential sun hours	235			266	366	426			508			529
Total, worst case		552				235			91			
Sun reduction		0.13				0.50			0.57			
Oper. time red.		0.94				0.94			0.94			
Wind dir. red.		0.60				0.65			0.65			
Total reduction		0.07				0.30			0.34			
Total, real		40				70			31			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Tadalinas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (42)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	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	05:19	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	06:33 (C1)	07:30	07:36	08:34
	22:05	21:15	8 06:41 (C1)	19:58	18:38	16:23
8	04:37	05:29	06:31 (C1)	06:31	07:32	07:38
	22:04	21:13	13 06:44 (C1)	19:55	18:35	16:21
9	04:38	05:31	06:30 (C1)	06:33	07:34	07:40
	22:03	21:11	15 06:45 (C1)	19:53	18:32	16:19
10	04:39	05:33	06:29 (C1)	06:35	07:36	07:42
	22:02	21:08	18 06:47 (C1)	19:50	18:30	16:17
11	04:41	05:35	06:27 (C1)	06:37	07:38	07:44
	22:01	21:06	20 06:47 (C1)	19:47	18:27	16:15
12	04:42	05:37	06:26 (C1)	06:39	07:40	07:46
	22:00	21:04	21 06:47 (C1)	19:45	18:25	16:13
13	04:43	05:39	06:26 (C1)	06:41	07:42	07:49
	21:59	21:02	22 06:48 (C1)	19:42	18:22	16:11
14	04:45	05:41	06:25 (C1)	06:43	07:44	07:51
	21:58	20:59	23 06:48 (C1)	19:39	18:19	16:09
15	04:46	05:43	06:25 (C1)	06:45	07:46	07:53
	21:57	20:57	23 06:48 (C1)	19:37	18:17	16:08
16	04:48	05:45	06:25 (C1)	06:47	07:48	07:55
	21:55	20:54	23 06:48 (C1)	19:34	18:14	16:06
17	04:49	05:47	06:25 (C1)	06:49	07:50	07:57
	21:54	20:52	23 06:48 (C1)	19:31	18:12	16:04
18	04:51	05:49	06:24 (C1)	06:51	07:52	07:59
	21:52	20:50	23 06:47 (C1)	19:29	18:09	16:02
19	04:52	05:51	06:24 (C1)	06:53	07:55	08:01
	21:51	20:47	22 06:46 (C1)	19:26	18:07	16:01
20	04:54	05:53	06:25 (C1)	06:55	07:57	08:03
	21:49	20:45	20 06:45 (C1)	19:23	18:04	15:59
21	04:56	05:55	06:26 (C1)	06:57	07:59	08:05
	21:48	20:42	18 06:44 (C1)	19:20	18:02	15:58
22	04:57	05:57	06:28 (C1)	06:59	08:01	08:07
	21:46	20:40	15 06:43 (C1)	19:18	17:59	15:56
23	04:59	05:59	06:30 (C1)	07:01	08:03	08:09
	21:45	20:37	11 06:41 (C1)	19:15	17:57	15:55
24	05:01	06:01	06:32 (C1)	07:03	08:05	08:11
	21:43	20:35	6 06:38 (C1)	19:12	17:55	15:53
25	05:03	06:03		07:05	07:07	08:13
	21:41	20:32		19:10	16:52	15:52
26	05:04	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	16:47	15:49
28	05:08	06:09		07:11	07:14	08:19
	21:36	20:24		19:02	16:45	15:48
29	05:10	06:11		07:13	07:16	08:21
	21:34	20:22		18:59	16:43	15:47
30	05:12	06:13		07:15	07:18	08:22
	21:32	20:19		18:56	16:40	15:46
31	05:14	06:15			07:20	
	21:30	20:17			16:38	
Potential sun hours	529	469	385	324	247	216
Total, worst case		324			191	1069
Sun reduction		0.50			0.08	0.07
Oper. time red.		0.94			0.94	0.94
Wind dir. red.		0.65			0.60	0.60
Total reduction		0.30			0.05	0.04
Total, real		96			9	41

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Tujas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (89)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upenes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (80)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56760080007) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (25)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:47	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:50	07:24 16:33	08:26 15:43
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:22	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:20	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:37 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	06:24 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	08:39 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:57	06:45 19:36	07:46 18:16	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:44 15:37
17	08:39 16:13	07:40 17:21	06:28 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:03	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:24 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:54 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:25	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:20 18:28	05:59 20:32	04:53 21:33	04:24 22:10	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:20 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:40	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:50 15:41
27	08:24 16:34	07:15 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:35	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:21	07:13 18:59	07:16 16:42	08:20 15:46	08:51 15:44
30	08:18 16:40		06:54 19:48	05:34 20:53	04:38 21:49	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Uplejas (kad. apz. 56960040385) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (66)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January		February		March	April	May	June	July	August	September	October	November	December	
1	08:51		10:16 (C13)	08:15	10:25 (C13)	07:11	06:49	05:33	04:36	04:30	05:16	06:17	07:17	07:23	08:24
	15:48	35	10:51 (C13)	16:45	11:02 (C13)	17:48	19:53	20:55	21:53	22:09	21:28	20:14	18:54	16:36	15:45
2	08:50		10:17 (C13)	08:13	10:26 (C13)	07:08	06:46	05:30	04:35	04:31	05:18	06:19	07:19	07:25	08:26
	15:49	35	10:52 (C13)	16:47	11:01 (C13)	17:50	19:55	20:57	21:54	22:09	21:26	20:11	18:51	16:34	15:44
3	08:50		10:16 (C13)	08:11	10:27 (C13)	07:06	06:43	05:28	04:34	04:32	05:19	06:21	07:21	07:27	08:28
	15:51	36	10:52 (C13)	16:50	11:01 (C13)	17:52	19:57	21:00	21:55	22:08	21:24	20:09	18:48	16:32	15:43
4	08:50		10:16 (C13)	08:09	10:28 (C13)	07:03	06:41	05:26	04:33	04:33	05:21	06:23	07:23	07:29	08:29
	15:52	37	10:53 (C13)	16:52	11:00 (C13)	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:46	16:29	15:42
5	08:49		10:17 (C13)	08:07	10:30 (C13)	07:00	06:38	05:23	04:32	04:34	05:23	06:25	07:25	07:31	08:31
	15:53	37	10:54 (C13)	16:54	10:31 (C13)	06:58	06:35	05:21	04:31	04:35	05:25	06:27	07:27	07:33	08:32
6	08:49		10:17 (C13)	08:05	10:31 (C13)	06:58	06:35	05:21	04:31	04:35	05:25	06:27	07:27	07:33	08:32
	15:55	38	10:55 (C13)	16:56	10:56 (C13)	17:58	20:03	21:06	21:59	22:06	21:17	20:01	18:40	16:25	15:41
7	08:48		10:17 (C13)	08:03	10:34 (C13)	06:55	06:33	05:19	04:30	04:36	05:27	06:29	07:30	07:36	08:34
	15:56	38	10:55 (C13)	16:59	10:54 (C13)	18:00	20:05	21:08	22:00	22:05	21:15	19:58	18:38	16:23	15:40
8	08:48		10:17 (C13)	08:01	10:37 (C13)	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:32	07:38	08:35
	15:58	39	10:56 (C13)	17:01	10:51 (C13)	18:03	20:08	21:10	22:01	22:04	21:13	19:55	18:35	16:21	15:40
9	08:47		10:17 (C13)	07:58		06:50	06:28	05:15	04:28	04:38	05:31	06:33	07:34	07:40	08:37
	15:59	40	10:57 (C13)	17:03		18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:32	16:19	15:39
10	08:46		10:17 (C13)	07:56		06:47	06:25	05:13	04:28	04:39	05:33	06:35	07:36	07:42	08:38
	16:01	40	10:57 (C13)	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		10:18 (C13)	07:54		06:45	06:22	05:11	04:27	04:41	05:35	06:37	07:38	07:44	08:39
	16:03	40	10:58 (C13)	17:08		18:09	20:14	21:16	22:04	22:01	21:06	19:47	18:27	16:15	15:38
12	08:44		10:18 (C13)	07:52		06:42	06:20	05:08	04:27	04:42	05:37	06:39	07:40	07:46	08:40
	16:04	41	10:59 (C13)	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		10:17 (C13)	07:49		06:40	06:17	05:06	04:26	04:43	05:39	06:41	07:42	07:49	08:42
	16:06	42	10:59 (C13)	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		10:18 (C13)	07:47		06:37	06:14	05:04	04:26	04:45	05:41	06:43	07:44	07:51	08:43
	16:08	42	11:00 (C13)	17:14		18:15	20:20	21:22	22:07	21:58	20:59	19:39	18:19	16:09	15:38
15	08:41		10:17 (C13)	07:45		06:34	06:12	05:03	04:26	04:46	05:43	06:45	07:46	07:53	08:44
	16:10	43	11:00 (C13)	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		10:18 (C13)	07:43		06:32	06:09	05:01	04:25	04:48	05:45	06:47	07:48	07:55	08:45
	16:12	43	11:01 (C13)	17:19		18:20	20:24	21:25	22:08	21:55	20:54	19:34	18:14	16:06	15:38
17	08:39		10:19 (C13)	07:40		06:29	06:07	04:59	04:25	04:49	05:47	06:49	07:50	07:57	08:46
	16:14	43	11:02 (C13)	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		10:18 (C13)	07:38		06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:52	07:59	08:46
	16:16	44	11:02 (C13)	17:23		18:24	20:28	21:29	22:09	21:52	20:50	19:29	18:09	16:02	15:38
19	08:36		10:18 (C13)	07:36		06:24	06:02	04:55	04:25	04:52	05:51	06:53	07:55	08:01	08:47
	16:18	44	11:02 (C13)	17:26		18:26	20:30	21:31	22:09	21:51	20:47	19:26	18:07	16:01	15:38
20	08:35		10:19 (C13)	07:33		06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:03	08:48
	16:20	44	11:03 (C13)	17:28		18:28	20:33	21:33	22:10	21:49	20:45	19:23	18:04	15:59	15:39
21	08:33		10:19 (C13)	07:31		06:18	05:57	04:52	04:25	04:56	05:55	06:57	07:59	08:05	08:48
	16:22	44	11:03 (C13)	17:30		18:30	20:35	21:35	22:10	21:48	20:42	19:20	18:02	15:58	15:39
22	08:32		10:19 (C13)	07:28		06:16	05:54	04:50	04:25	04:57	05:57	06:59	08:01	08:07	08:49
	16:24	44	11:03 (C13)	17:32		18:32	20:37	21:37	22:10	21:46	20:40	19:18	17:59	15:56	15:39
23	08:30		10:19 (C13)	07:26		06:13	05:52	04:48	04:26	04:59	05:59	07:01	08:03	08:09	08:50
	16:26	44	11:03 (C13)	17:34		18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:55	15:40
24	08:29		10:21 (C13)	07:23		06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:11	08:50
	16:28	43	11:04 (C13)	17:37		18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:55	15:53	15:41
25	08:27		10:21 (C13)	07:21		06:07	05:47	04:45	04:26	05:03	06:03	07:05	07:07	08:13	08:50
	16:30	43	11:04 (C13)	17:39		18:38	20:43	21:42	22:10	21:41	20:32	19:10	17:52	15:52	15:41
26	08:26		10:21 (C13)	07:18		06:05	05:44	04:44	04:27	05:04	06:05	07:07	07:10	08:15	08:51
	16:32	43	11:04 (C13)	17:41		18:41	20:45	21:43	22:10	21:39	20:30	19:07	17:50	15:51	15:42
27	08:24		10:22 (C13)	07:16		06:02	05:42	04:42	04:27	05:06	06:07	07:09	07:12	08:17	08:51
	16:34	42	11:04 (C13)	17:43		18:43	20:47	21:45	22:10	21:38	20:27	19:04	17:47	15:49	15:43
28	08:22		10:22 (C13)	07:13		05:59	05:40	04:41	04:28	05:08	06:09	07:11	07:14	08:19	08:51
	16:36	42	11:04 (C13)	17:45		18:45	20:49	21:47	22:10	21:36	20:24	19:02	17:45	15:48	15:44
29	08:20		10:23 (C13)			06:57	05:37	04:40	04:29	05:10	06:11	07:13	07:16	08:21	08:51
	16:39	41	11:04 (C13)			19:47	20:51	21:48	22:10	21:34	20:22	18:59	17:43	15:47	15:45
30	08:18		10:24 (C13)			06:54	05:35	04:38	04:29	05:12	06:13	07:15	07:18	08:22	08:51
	16:41	40	11:04 (C13)			19:49	20:53	21:50	22:09	21:32	20:19	18:56	17:40	15:46	15:46
31	08:17		10:25 (C13)			06:51		04:37		05:14	06:15		07:20		08:51
	16:43	38	11:03 (C13)			19:51		21:51		21:30	20:17		16:38		15:47
Potential sun hours	235		266		366	426	508	529	529	469	385	324	247		216
Total, worst case		1265		226									1078		1060
Sun reduction		0.13		0.20									0.08		0.07
Oper. time red.		0.94		0.94									0.94		0.94
Wind dir. red.		0.61		0.61									0.61		0.61
Total reduction		0.08		0.12									0.05		0.04
Total, real		97		26									51		43

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upmalas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (215)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:04	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:58	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:51	06:49 19:31	07:50 18:12	07:56 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:42	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (146)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51		13:49 (C15)	08:15			07:11		16:09 (C13)	06:49		05:32				04:36		05:41 (C4)
	15:48	15	14:04 (C15)	16:45			17:47	39	16:48 (C13)	19:53		20:55				21:52	25	06:06 (C4)
2	08:50		13:49 (C15)	08:13			07:08		16:09 (C13)	06:46		05:30				04:35		05:41 (C4)
	15:49	14	14:03 (C15)	16:47			17:50	38	16:47 (C13)	19:55		20:57				21:54	25	06:06 (C4)
3	08:50		13:51 (C15)	08:11			07:06		16:09 (C13)	06:43		05:28				04:34		05:41 (C4)
	15:51	13	14:04 (C15)	16:50			17:52	39	16:48 (C13)	19:57		20:59				21:55	24	06:05 (C4)
4	08:50		13:52 (C15)	08:09			07:03		16:09 (C13)	06:41		05:26				04:33		05:42 (C4)
	15:52	11	14:03 (C15)	16:52			17:54	38	16:47 (C13)	19:59		21:01				21:56	23	06:05 (C4)
5	08:49		13:54 (C15)	08:07			07:00		16:09 (C13)	06:38		05:23				04:32		05:43 (C4)
	15:53	9	14:03 (C15)	16:54			17:56	37	16:46 (C13)	20:01		21:04				21:58	22	06:05 (C4)
6	08:49		13:56 (C15)	08:05			06:58		16:10 (C13)	06:35		05:21				04:31		05:43 (C4)
	15:55	5	14:01 (C15)	16:56			17:58	36	16:46 (C13)	20:03		21:06				21:59	22	06:05 (C4)
7	08:48			08:03			06:55		16:10 (C13)	06:33		05:19				04:30		05:43 (C4)
	15:56			16:59			18:00	35	16:45 (C13)	20:05		21:08				22:00	21	06:04 (C4)
8	08:47			08:00			06:53		16:10 (C13)	06:30		05:17				04:29		05:44 (C4)
	15:58			17:01			18:03	34	16:44 (C13)	20:07		21:10				22:01	21	06:05 (C4)
9	08:47			07:58			06:50		16:12 (C13)	06:27		05:15			05:47 (C4)	04:28		05:45 (C4)
	15:59			17:03			18:05	31	16:43 (C13)	20:10		21:12	10	05:57 (C4)		22:02	19	06:04 (C4)
10	08:46			07:56			06:47		16:12 (C13)	06:25		05:13			05:45 (C4)	04:28		05:46 (C4)
	16:01			17:05			18:07	30	16:42 (C13)	20:12		21:14	14	05:59 (C4)		22:03	18	06:04 (C4)
11	08:45			07:54			06:45		16:13 (C13)	06:22		05:10			05:43 (C4)	04:27		05:46 (C4)
	16:03			17:08			18:09	27	16:40 (C13)	20:14		21:16	18	06:01 (C4)		22:04	17	06:03 (C4)
12	08:44			07:52			06:42		16:16 (C13)	06:20		05:08			05:42 (C4)	04:27		05:46 (C4)
	16:04			17:10			18:11	22	16:38 (C13)	20:16		21:18	20	06:02 (C4)		22:05	18	06:04 (C4)
13	08:43			07:49			06:39		16:18 (C13)	06:17		05:06			05:41 (C4)	04:26		05:47 (C4)
	16:06			17:12			18:13	17	16:35 (C13)	20:18		21:20	22	06:03 (C4)		22:06	17	06:04 (C4)
14	08:42			07:47			06:37		16:22 (C13)	06:14		05:04			05:41 (C4)	04:26		05:47 (C4)
	16:08			17:14			18:15	8	16:30 (C13)	20:20		21:22	23	06:04 (C4)		22:07	16	06:03 (C4)
15	08:41			07:45			06:34			06:12		05:02			05:40 (C4)	04:26		05:48 (C4)
	16:10			17:17			18:17			20:22		21:23	24	06:04 (C4)		22:07	15	06:03 (C4)
16	08:40			07:43			06:31			06:09		05:01			05:39 (C4)	04:25		05:48 (C4)
	16:12			17:19			18:20			20:24		21:25	26	06:05 (C4)		22:08	15	06:03 (C4)
17	08:39			07:40			06:29			06:07		04:59			05:39 (C4)	04:25		05:49 (C4)
	16:14			17:21			18:22			20:26		21:27	27	06:06 (C4)		22:08	14	06:03 (C4)
18	08:37			07:38		16:23 (C13)	06:26			06:04		04:57			05:38 (C4)	04:25		05:49 (C4)
	16:16			17:23	12	16:35 (C13)	18:24			20:28		21:29	28	06:06 (C4)		22:09	14	06:03 (C4)
19	08:36			07:35		16:21 (C13)	06:23			06:02		04:55			05:38 (C4)	04:25		05:50 (C4)
	16:18			17:25	18	16:39 (C13)	18:26			20:30		21:31	28	06:06 (C4)		22:09	13	06:03 (C4)
20	08:35			07:33		16:18 (C13)	06:21			05:59		04:53			05:38 (C4)	04:25		05:50 (C4)
	16:20			17:28	23	16:41 (C13)	18:28			20:32		21:33	28	06:06 (C4)		22:10	13	06:03 (C4)
21	08:33			07:31		16:17 (C13)	06:18			05:57		04:52			05:38 (C4)	04:25		05:51 (C4)
	16:22			17:30	26	16:43 (C13)	18:30			20:35		21:35	28	06:06 (C4)		22:10	13	06:04 (C4)
22	08:32			07:28		16:15 (C13)	06:15			05:54		04:50			05:38 (C4)	04:25		05:51 (C4)
	16:24			17:32	29	16:44 (C13)	18:32			20:37		21:36	29	06:07 (C4)		22:10	13	06:04 (C4)
23	08:30			07:26		16:14 (C13)	06:13			05:52		04:48			05:37 (C4)	04:26		05:51 (C4)
	16:26			17:34	32	16:46 (C13)	18:34			20:39		21:38	29	06:06 (C4)		22:10	13	06:04 (C4)
24	08:29			07:23		16:13 (C13)	06:10			05:49		04:47			05:38 (C4)	04:26		05:50 (C4)
	16:28			17:36	33	16:46 (C13)	18:36			20:41		21:40	28	06:06 (C4)		22:10	14	06:04 (C4)
25	08:27			07:21		16:11 (C13)	06:07			05:47		04:45			05:38 (C4)	04:26		05:51 (C4)
	16:30			17:39	35	16:46 (C13)	18:38			20:43		21:42	29	06:07 (C4)		22:10	14	06:05 (C4)
26	08:25			07:18		16:11 (C13)	06:05			05:44		04:44			05:39 (C4)	04:27		05:51 (C4)
	16:32			17:41	36	16:47 (C13)	18:40			20:45		21:43	28	06:07 (C4)		22:10	14	06:05 (C4)
27	08:24			07:16		16:10 (C13)	06:02			05:42		04:42			05:38 (C4)	04:27		05:51 (C4)
	16:34			17:43	37	16:47 (C13)	18:43			20:47		21:45	28	06:06 (C4)		22:10	15	06:06 (C4)
28	08:22			07:13		16:10 (C13)	05:59			05:39		04:41			05:39 (C4)	04:28		05:50 (C4)
	16:36			17:45	38	16:48 (C13)	18:45			20:49		21:46	27	06:06 (C4)		22:10	16	06:06 (C4)
29	08:20						06:57			05:37		04:39			05:39 (C4)	04:28		05:51 (C4)
	16:39						19:47			20:51		21:48	27	06:06 (C4)		22:10	16	06:07 (C4)
30	08:18						06:54			05:35		04:38			05:40 (C4)	04:29		05:51 (C4)
	16:41						19:49			20:53		21:50	26	06:06 (C4)		22:09	17	06:08 (C4)
31	08:17						06:51					04:37			05:40 (C4)			
	16:43						19:51					21:51	26	06:06 (C4)				
Potential sun hours	235			266			366			426		508				529		
Total, worst case		67			319			431				573					517	
Sun reduction		0.13			0.20			0.41				0.57					0.56	
Oper. time red.		0.94			0.94			0.94				0.94					0.94	
Wind dir. red.		0.65			0.67			0.67				0.67					0.67	
Total reduction		0.08			0.13			0.26				0.36					0.35	
Total, real		5			41			112				205					182	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upmales - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (146)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July		August		September		October		November		December	
1	04:30	05:50 (C4)	05:16	05:52 (C4)	06:17	07:17	16:56 (C13)	07:22	08:24			
2	22:09	17 06:07 (C4)	21:28	20 06:12 (C4)	20:14	18:54	20 17:16 (C13)	16:36	15:45			
3	04:31	05:50 (C4)	05:17	05:54 (C4)	06:19	07:19	16:53 (C13)	07:25	08:26			
4	22:08	18 06:08 (C4)	21:26	17 06:11 (C4)	20:11	18:51	25 17:18 (C13)	16:34	15:44			
5	04:32	05:50 (C4)	05:19	05:56 (C4)	06:21	07:21	16:51 (C13)	07:27	08:27			
6	22:08	19 06:09 (C4)	21:24	13 06:09 (C4)	20:09	18:48	28 17:19 (C13)	16:31	15:43			
7	04:33	05:50 (C4)	05:21	05:59 (C4)	06:23	07:23	16:49 (C13)	07:29	08:29			
8	22:07	20 06:10 (C4)	21:22	7 06:06 (C4)	20:06	18:46	31 17:20 (C13)	16:29	15:42			
9	04:34	05:50 (C4)	05:23		06:25	07:25	16:48 (C13)	07:31	08:31			
10	22:07	20 06:10 (C4)	21:19		20:03	18:43	33 17:21 (C13)	16:27	15:42			
11	04:35	05:50 (C4)	05:25		06:27	07:27	16:46 (C13)	07:33	08:32		13:43 (C15)	
12	22:06	21 06:11 (C4)	21:17		20:01	18:40	35 17:21 (C13)	16:25	15:41	4	13:47 (C15)	
13	04:36	05:49 (C4)	05:27		06:29	07:29	16:45 (C13)	07:36	08:34		13:41 (C15)	
14	22:05	23 06:12 (C4)	21:15		19:58	18:38	36 17:21 (C13)	16:23	15:40	8	13:49 (C15)	
15	04:37	05:49 (C4)	05:29		06:31	07:31	16:44 (C13)	07:38	08:35		13:40 (C15)	
16	22:04	23 06:12 (C4)	21:13		19:55	18:35	37 17:21 (C13)	16:21	15:40	11	13:51 (C15)	
17	04:38	05:49 (C4)	05:31		06:33	07:34	16:44 (C13)	07:40	08:36		13:39 (C15)	
18	22:03	23 06:12 (C4)	21:11		19:53	18:32	37 17:21 (C13)	16:19	15:39	13	13:52 (C15)	
19	04:39	05:49 (C4)	05:33		06:35	07:36	16:44 (C13)	07:42	08:38		13:40 (C15)	
20	22:02	24 06:13 (C4)	21:08		19:50	18:30	38 17:22 (C13)	16:17	15:39	13	13:53 (C15)	
21	04:41	05:48 (C4)	05:35		06:37	07:38	16:43 (C13)	07:44	08:39		13:39 (C15)	
22	22:01	25 06:13 (C4)	21:06		19:47	18:27	39 17:22 (C13)	16:15	15:38	15	13:54 (C15)	
23	04:42	05:49 (C4)	05:37		06:39	07:40	16:43 (C13)	07:46	08:40		13:39 (C15)	
24	22:00	25 06:14 (C4)	21:04		19:45	18:25	38 17:21 (C13)	16:13	15:38	15	13:54 (C15)	
25	04:43	05:48 (C4)	05:39		06:41	07:42	16:43 (C13)	07:48	08:41		13:40 (C15)	
26	21:59	27 06:15 (C4)	21:01		19:42	18:22	38 17:21 (C13)	16:11	15:38	16	13:56 (C15)	
27	04:45	05:48 (C4)	05:41		06:43	07:44	16:42 (C13)	07:51	08:43		13:40 (C15)	
28	21:58	27 06:15 (C4)	20:59		19:39	18:19	38 17:20 (C13)	16:09	15:38	17	13:57 (C15)	
29	04:46	05:48 (C4)	05:43		06:45	07:46	16:43 (C13)	07:53	08:44		13:40 (C15)	
30	21:56	27 06:15 (C4)	20:57		19:37	18:17	37 17:20 (C13)	16:07	15:38	17	13:57 (C15)	
31	04:48	05:48 (C4)	05:45		06:47	07:48	16:43 (C13)	07:55	08:45		13:40 (C15)	
32	21:55	28 06:16 (C4)	20:54		19:34	18:14	36 17:19 (C13)	16:06	15:38	18	13:58 (C15)	
33	04:49	05:48 (C4)	05:47		06:49	07:50	16:44 (C13)	07:57	08:45		13:40 (C15)	
34	21:54	28 06:16 (C4)	20:52		19:31	18:12	34 17:18 (C13)	16:04	15:38	19	13:59 (C15)	
35	04:51	05:48 (C4)	05:49		06:51	07:52	16:44 (C13)	07:59	08:46		13:41 (C15)	
36	21:52	28 06:16 (C4)	20:49		19:28	18:09	33 17:17 (C13)	16:02	15:38	18	13:59 (C15)	
37	04:52	05:48 (C4)	05:51		06:53	07:54	16:45 (C13)	08:01	08:47		13:40 (C15)	
38	21:51	28 06:16 (C4)	20:47		19:26	18:07	30 17:15 (C13)	16:01	15:38	19	13:59 (C15)	
39	04:54	05:48 (C4)	05:53		06:55	07:57	16:46 (C13)	08:03	08:48		13:41 (C15)	
40	21:49	29 06:17 (C4)	20:45		19:23	18:04	29 17:15 (C13)	15:59	15:39	19	14:00 (C15)	
41	04:56	05:48 (C4)	05:55		06:57	07:59	16:47 (C13)	08:05	08:48		13:42 (C15)	
42	21:48	28 06:16 (C4)	20:42		19:20	18:02	26 17:13 (C13)	15:58	15:39	19	14:01 (C15)	
43	04:57	05:48 (C4)	05:57		06:59	08:01	16:49 (C13)	08:07	08:49		13:42 (C15)	
44	21:46	29 06:17 (C4)	20:40		19:18	17:59	22 17:11 (C13)	15:56	15:39	19	14:01 (C15)	
45	04:59	05:48 (C4)	05:59		07:01	08:03	16:52 (C13)	08:09	08:49		13:42 (C15)	
46	21:44	28 06:16 (C4)	20:37		19:15	17:57	17 17:09 (C13)	15:55	15:40	19	14:01 (C15)	
47	05:01	05:48 (C4)	06:01		07:03	08:05	16:55 (C13)	08:11	08:50		13:43 (C15)	
48	21:43	29 06:17 (C4)	20:35		19:12	17:55	9 17:04 (C13)	15:53	15:40	19	14:02 (C15)	
49	05:03	05:48 (C4)	06:03		07:05	08:07		08:13	08:50		13:44 (C15)	
50	21:41	28 06:16 (C4)	20:32		19:10	16:52		15:52	15:41	18	14:02 (C15)	
51	05:04	05:49 (C4)	06:05		07:07	07:09		08:15	08:50		13:44 (C15)	
52	21:39	27 06:16 (C4)	20:29		19:07	16:50		15:51	15:42	18	14:02 (C15)	
53	05:06	05:50 (C4)	06:07		07:09	07:12		08:17	08:51		13:45 (C15)	
54	21:37	26 06:16 (C4)	20:27		19:04	16:47		15:49	15:43	18	14:03 (C15)	
55	05:08	05:49 (C4)	06:09		07:11	07:14		08:19	08:51		13:45 (C15)	
56	21:36	26 06:15 (C4)	20:24		19:02	16:45		15:48	15:44	18	14:03 (C15)	
57	05:10	05:50 (C4)	06:11		07:13	07:16		08:21	08:51		13:46 (C15)	
58	21:34	24 06:14 (C4)	20:22		18:59	16:43		15:47	15:45	17	14:03 (C15)	
59	05:12	05:51 (C4)	06:13		07:15	07:18		08:22	08:51		13:47 (C15)	
60	21:32	23 06:14 (C4)	20:19		18:56	16:40		15:46	15:46	17	14:04 (C15)	
61	05:14	05:52 (C4)	06:15			07:20			08:51		13:47 (C15)	
62	21:30	21 06:13 (C4)	20:17			16:38			15:47	16	14:03 (C15)	
Potential sun hours	529		469		385	324		247	216			
Total, worst case	769		57		15	746			420			
Sun reduction	0.49		0.50		0.43	0.26			0.07			
Oper. time red.	0.94		0.94		0.94	0.94			0.94			
Wind dir. red.	0.67		0.67		0.67	0.67			0.65			
Total reduction	0.31		0.31		0.27	0.16			0.04			
Total, real	239		18		4	122			18			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upmalnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (209)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48 08:50	08:14 16:45 08:12	07:10 17:47 07:08	16:20 (C3) 06:48 19:53	05:32 20:55 05:30	04:35 21:52 04:34	04:29 22:09 04:30	05:15 21:28 05:17	06:17 20:14 06:19	07:17 18:53 07:19		07:22 16:35 08:26
2	15:49 08:50	16:47 08:10	17:49 07:05	16:52 (C3) 19:55 16:20 (C3)	20:57 05:27 05:25	21:54 04:33 04:31	22:08 04:31 05:19	21:25 06:21 06:25	20:11 18:50 17:08 (C3)	18:50 17:21 17:02 (C3)	17:08 (C3) 16:31 17:05 (C3)	07:27 15:43 07:29
3	15:50 08:49	16:49 08:08	17:51 07:03	16:51 (C3) 19:57 16:21 (C3)	20:59 05:25 05:23	21:55 04:32 04:31	22:08 04:32 05:23	21:23 06:23 06:25	20:08 18:48 17:22 (C3)	8 17:16 (C3) 17:02 (C3)	16:31 17:05 (C3) 17:22 (C3)	15:43 08:29 16:29
4	15:51 08:49	16:51 08:06	17:54 07:00	16:51 (C3) 19:59 16:21 (C3)	21:01 05:23 05:21	21:56 04:31 04:30	22:07 04:33 05:25	21:21 06:25 06:27	20:06 18:45 17:22 (C3)	15 17:20 (C3) 17:00 (C3)	16:29 17:31 17:22 (C3)	15:42 08:30 16:27
5	15:53 08:48	16:54 08:04	17:56 06:57	16:50 (C3) 20:01 16:21 (C3)	21:03 05:21 05:21	21:58 04:30 04:34	22:06 05:25 05:25	21:19 20:03 06:27	20:03 18:43 17:22 (C3)	20 17:22 (C3) 17:00 (C3)	16:27 17:33 17:22 (C3)	15:41 08:32 16:25
6	15:54 08:48	16:56 08:02	17:58 06:55	16:49 (C3) 20:03 16:23 (C3)	21:05 05:18 05:18	21:59 04:29 04:35	22:06 05:27 05:27	21:17 20:00 06:29	20:00 18:40 17:22 (C3)	24 17:24 (C3) 16:58 (C3)	16:25 17:35 17:24 (C3)	15:40 08:33 16:23
7	15:56 08:47	16:58 08:00	18:00 06:52	16:48 (C3) 20:05 16:24 (C3)	21:07 05:16 05:16	22:00 04:29 04:36	22:05 05:29 06:31	21:15 19:58 17:37	19:58 18:37 16:57 (C3)	26 17:24 (C3) 16:57 (C3)	16:23 17:37 17:24 (C3)	15:40 08:35 16:20
8	15:57 08:46	17:00 07:58	18:02 06:50	16:46 (C3) 20:07 16:26 (C3)	21:09 05:14 05:14	22:01 04:28 04:38	22:04 05:31 06:33	21:13 19:55 17:35	19:55 18:35 16:55 (C3)	28 17:25 (C3) 16:55 (C3)	16:20 17:40 17:25 (C3)	15:39 08:36 16:18
9	15:59 08:46	17:03 07:56	18:04 06:47	16:44 (C3) 20:09 16:29 (C3)	21:11 05:12 05:12	22:02 04:27 04:39	22:03 05:33 06:35	21:10 19:52 17:35	19:52 18:32 16:54 (C3)	30 17:25 (C3) 16:54 (C3)	16:18 17:42 17:25 (C3)	15:39 08:38 16:16
10	16:01 08:45	17:05 07:54	18:06 06:44	16:41 (C3) 20:11 06:22	21:13 05:10 05:10	22:03 04:27 04:40	22:02 05:35 06:37	21:08 19:50 17:37	19:50 18:29 16:53 (C3)	31 17:25 (C3) 16:53 (C3)	16:16 17:44 17:25 (C3)	15:38 08:39 16:14
11	16:02 08:44	17:07 07:51	18:09 06:42	20:13 06:19 06:17	21:15 05:08 05:06	22:04 04:26 04:43	22:01 05:37 06:39	21:06 19:47 17:39	19:47 18:27 16:54 (C3)	32 17:25 (C3) 16:54 (C3)	16:14 17:46 17:25 (C3)	15:38 08:40 16:13
12	16:04 08:43	17:09 07:49	18:11 06:39	20:15 06:17 06:13	21:17 05:06 05:06	22:05 04:26 04:43	22:00 05:39 06:41	21:03 19:44 17:42	19:44 18:24 16:53 (C3)	32 17:25 (C3) 16:53 (C3)	16:13 17:48 17:25 (C3)	15:38 08:41 16:11
13	16:06 08:42	17:12 07:47	18:13 06:36	20:18 06:14 06:14	21:19 05:04 05:04	22:06 04:25 04:44	21:59 05:39 06:41	19:42 18:22 16:53 (C3)	33 17:26 (C3) 16:53 (C3)	32 17:26 (C3) 16:53 (C3)	16:11 17:48 17:26 (C3)	15:37 08:42 16:09
14	16:08 08:41	17:14 07:45	18:15 06:34	20:20 06:11 06:11	21:21 05:02 05:02	22:06 04:25 04:46	21:58 05:46 06:45	20:59 19:39 17:46	18:19 16:52 (C3) 16:52 (C3)	32 17:25 (C3) 16:52 (C3)	16:09 17:52 17:25 (C3)	15:37 08:43 16:07
15	16:09 08:40	17:16 07:42	18:17 06:31	20:22 06:09 06:09	21:23 05:00 05:00	22:07 04:25 04:47	21:56 05:46 06:45	20:56 19:36 17:48	18:16 16:52 (C3) 16:52 (C3)	33 17:25 (C3) 16:52 (C3)	16:07 17:55 17:25 (C3)	15:37 08:44 16:05
16	16:11 08:38	17:18 07:40	18:19 06:28	20:24 06:06 06:06	21:25 04:58 04:58	22:08 04:25 04:49	21:55 05:49 06:49	20:54 19:34 17:50	18:14 16:53 (C3) 16:53 (C3)	32 17:24 (C3) 16:53 (C3)	16:05 17:57 17:24 (C3)	15:37 08:45 16:04
17	16:13 08:37	17:21 07:38	18:21 06:26	20:26 06:04 06:04	21:27 04:56 04:56	22:08 04:25 04:50	21:54 05:49 06:49	20:52 19:31 17:52	18:11 16:53 (C3) 16:53 (C3)	31 17:24 (C3) 16:53 (C3)	16:04 17:59 17:24 (C3)	15:37 08:46 16:02
18	16:15 08:36	17:23 07:35	18:23 06:23	20:28 06:01 06:01	21:29 04:55 04:55	22:09 04:25 04:52	21:52 05:49 06:49	20:49 19:28 17:54	18:09 16:54 (C3) 16:54 (C3)	30 17:23 (C3) 16:54 (C3)	16:02 17:59 17:23 (C3)	15:37 08:47 16:00
19	16:17 08:34	17:25 07:33	18:25 06:20	20:30 05:59 05:59	21:31 04:53 04:53	22:09 04:25 04:54	21:51 05:53 06:55	20:47 19:25 17:56	18:06 16:54 (C3) 16:54 (C3)	28 17:22 (C3) 16:54 (C3)	16:00 17:59 17:22 (C3)	15:38 08:48 16:03
20	16:19 08:33	17:27 07:30	18:28 06:18	20:32 05:56 05:56	21:33 04:51 04:51	22:09 04:25 04:55	21:49 05:55 06:57	20:44 19:23 17:58	18:04 16:56 (C3) 16:56 (C3)	27 17:21 (C3) 16:56 (C3)	15:59 16:05 16:56 (C3)	15:38 08:48 16:05
21	16:21 08:32	17:29 07:28	18:30 06:15	20:34 05:54 05:54	21:34 04:49 04:49	22:10 04:25 04:57	21:48 05:57 06:59	20:42 19:20 18:01	18:01 16:57 (C3) 16:57 (C3)	24 17:20 (C3) 16:57 (C3)	15:57 16:07 16:57 (C3)	15:38 08:49 16:07
22	16:23 08:30	17:32 07:25	18:32 06:12	20:36 05:51 05:51	21:36 04:48 04:48	22:10 04:25 04:59	21:46 05:59 07:01	20:39 19:17 17:59	18:01 16:59 (C3) 16:59 (C3)	21 17:18 (C3) 16:59 (C3)	15:56 16:09 16:59 (C3)	15:39 08:49 16:09
23	16:25 08:28	17:34 07:23	18:34 06:10	20:38 05:49 05:49	21:38 04:46 04:46	22:10 04:25 05:00	21:44 06:01 07:03	20:37 19:15 17:57	17:57 16:59 (C3) 16:59 (C3)	16 17:15 (C3) 17:03 (C3)	15:54 16:11 17:03 (C3)	15:39 08:50 16:10
24	16:27 08:27	17:36 07:20	18:36 06:07	20:41 05:46 05:46	21:40 04:45 04:45	22:10 04:26 05:02	21:43 06:03 07:05	20:34 19:12 17:54	19:12 17:54 17:54	9 17:12 (C3) 17:12 (C3)	15:53 16:13 17:12 (C3)	15:40 08:50 16:10
25	16:29 08:25	17:38 07:18	18:38 06:04	20:43 05:44 05:44	21:41 04:43 04:43	22:10 04:26 05:04	21:41 06:05 07:07	20:32 19:09 17:52	19:09 16:52 16:52		15:51 16:15 16:52	15:41 08:51 16:11
26	16:32 08:23	17:40 07:15	18:40 06:02	20:45 05:41 05:41	21:43 04:42 04:42	22:10 04:27 05:06	21:39 06:07 07:09	20:29 19:07 17:41	19:07 16:49 16:49		15:50 16:17 16:50	15:41 08:50 16:12
27	16:34 08:22	17:43 07:13	18:42 05:59	20:47 05:39 05:39	21:45 04:40 04:40	22:10 04:27 05:08	21:37 06:09 07:11	20:27 19:04 17:13	19:04 16:47 16:47		15:49 16:18 16:51	15:42 08:51 16:13
28	16:36 08:20	17:45 07:06	18:44 05:56	20:49 05:37 05:37	21:46 04:39 04:39	22:10 04:28 05:09	21:35 06:11 07:13	20:24 19:01 17:16	19:01 16:45 16:45		15:48 16:20 16:54	15:43 08:51 16:14
29	16:38 08:18		19:46 06:54	20:51 05:34 05:34	21:48 04:38 04:38	22:09 04:29 05:11	21:33 06:13 07:15	20:21 18:59 17:18	18:59 16:42 16:42		15:47 16:22 16:56	15:44 08:51 16:15
30	16:40 08:16		19:48 06:51	20:53 05:30 05:30	21:49 04:36 04:36	22:09 04:29 05:13	21:31 06:15 07:17	20:19 18:56 17:20	18:56 16:40 16:40		15:45 16:24 16:58	15:45 08:51 16:16
31	16:42 Potential sun hours	266	366	426	508	529	529	469	385	324	247	216
Total, worst case		289	260							562		
Sun reduction		0.20	0.41							0.26		
Oper. time red.		0.94	0.94							0.94		
Wind dir. red.		0.67	0.67							0.67		
Total reduction		0.13	0.26							0.16		
Total, real		37	68							92		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (147)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

January		February		March		April		May		June	
1	08:51 15:48 21	14:04 (C15) 14:25 (C15) 16:45	08:15 16:45 16:45	07:11 17:47 33	16:25 (C13) 16:58 (C13) 19:53	06:49 17:53 16	07:36 (C8) 07:52 (C8) 20:55	05:32 20:55 6	06:33 (C6) 06:39 (C6) 21:52	04:36 21:52 31	05:30 (C4) 06:01 (C4) 05:30 (C4)
2	08:50 15:49 19	14:05 (C15) 14:24 (C15) 16:47	08:13 16:47 16:47	07:08 17:50 33	16:25 (C13) 16:58 (C13) 19:55	06:46 17:53 11	07:38 (C8) 07:49 (C8) 20:57	05:30 20:57 05:28	06:33 (C6) 21:54 31	04:35 21:54 06:01 (C4)	05:30 (C4) 06:01 (C4) 05:30 (C4)
3	08:50 15:51 19	14:06 (C15) 14:25 (C15) 16:50	08:11 16:50 16:50	07:06 17:52 34	16:25 (C13) 16:59 (C13) 19:57	06:43 17:57 4	07:41 (C8) 07:45 (C8) 20:59	05:28 20:59 05:26	06:33 (C6) 21:55 31	04:34 21:55 06:01 (C4)	05:30 (C4) 06:01 (C4) 05:29 (C4)
4	08:50 15:52 19	14:06 (C15) 14:25 (C15) 16:52	08:09 16:52 16:52	07:03 17:54 34	16:24 (C13) 16:58 (C13) 19:59	06:41 17:54 05:23	07:45 (C8) 20:59 21:01	05:26 21:01 21:04	06:33 (C6) 21:56 32	04:33 21:56 06:01 (C4)	05:29 (C4) 06:01 (C4) 05:30 (C4)
5	08:49 15:53 18	14:08 (C15) 14:26 (C15) 16:54	08:07 16:54 16:54	07:00 17:56 34	16:24 (C13) 16:58 (C13) 20:01	06:38 17:56 21:04	07:52 (C8) 20:57 05:21	20:55 21:04 21:06	06:39 (C6) 21:58 32	04:32 21:58 06:02 (C4)	05:30 (C4) 06:02 (C4) 05:30 (C4)
6	08:49 15:55 16	14:09 (C15) 14:25 (C15) 16:56	08:05 16:56 16:56	06:58 17:58 33	16:25 (C13) 16:58 (C13) 20:03	06:35 17:58 21:06	07:49 (C8) 20:57 05:19	20:57 21:06 21:08	06:39 (C6) 21:59 32	04:31 21:59 06:02 (C4)	05:30 (C4) 06:02 (C4) 05:30 (C4)
7	08:48 15:56 16	14:09 (C15) 14:25 (C15) 16:59	08:03 16:59 16:59	06:55 18:00 32	16:25 (C13) 16:57 (C13) 20:05	06:33 16:57 (C13) 21:08	07:45 (C8) 20:59 05:17	20:59 21:08 21:10	06:39 (C6) 22:00 32	04:30 22:00 06:02 (C4)	05:30 (C4) 06:02 (C4) 05:31 (C4)
8	08:47 15:58 14	14:11 (C15) 14:25 (C15) 17:01	08:00 17:01 17:01	06:53 18:03 31	16:25 (C13) 16:56 (C13) 20:07	06:30 16:56 (C13) 21:10	07:45 (C8) 20:59 05:15	20:59 21:10 21:12	06:39 (C6) 22:01 32	04:29 22:01 06:03 (C4)	05:31 (C4) 06:03 (C4) 05:31 (C4)
9	08:47 15:59 12	14:12 (C15) 14:24 (C15) 17:03	07:58 17:03 17:03	06:50 18:05 29	16:26 (C13) 16:55 (C13) 20:10	06:27 16:55 (C13) 21:12	07:52 (C8) 20:59 05:13	20:59 21:12 21:14	06:39 (C6) 22:02 31	04:28 22:02 06:02 (C4)	05:31 (C4) 06:02 (C4) 05:31 (C4)
10	08:46 16:01 10	14:14 (C15) 14:24 (C15) 17:05	07:56 17:05 17:05	06:47 18:07 28	16:26 (C13) 16:54 (C13) 20:12	06:25 16:54 (C13) 21:12	07:52 (C8) 20:59 05:10	20:59 21:12 21:16	06:39 (C6) 22:02 32	04:28 22:03 06:03 (C4)	05:31 (C4) 06:03 (C4) 05:31 (C4)
11	08:45 16:03 7	14:16 (C15) 14:23 (C15) 17:08	07:54 17:08 17:08	06:45 18:09 25	16:27 (C13) 16:52 (C13) 20:14	06:22 16:52 (C13) 21:14	07:52 (C8) 20:59 05:08	20:59 21:14 21:18	06:39 (C6) 22:03 31	04:27 22:04 06:02 (C4)	05:31 (C4) 06:02 (C4) 05:32 (C4)
12	08:44 16:04 13	14:17 (C15) 14:25 (C15) 17:10	07:52 17:10 17:10	06:42 18:11 22	16:29 (C13) 16:51 (C13) 20:16	06:20 16:51 (C13) 21:16	07:52 (C8) 20:59 05:06	20:59 21:16 21:20	06:39 (C6) 22:04 31	04:27 22:05 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
13	08:43 16:06 14	14:18 (C15) 14:26 (C15) 17:12	07:49 17:12 17:12	06:39 18:13 17	16:31 (C13) 16:48 (C13) 20:18	06:17 16:48 (C13) 21:20	07:52 (C8) 20:59 05:04	20:59 21:20 21:22	06:39 (C6) 22:05 31	04:26 22:06 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
14	08:42 16:08 15	14:19 (C15) 14:27 (C15) 17:14	07:47 17:14 17:14	06:37 18:15 9	16:35 (C13) 16:44 (C13) 20:20	06:14 16:44 (C13) 21:20	07:52 (C8) 20:59 05:02	20:59 21:22 21:23	06:39 (C6) 22:06 31	04:26 22:07 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
15	08:41 16:10 16	14:20 (C15) 14:28 (C15) 17:16	07:45 17:16 17:16	06:34 18:17 22	16:36 (C13) 16:53 (C13) 20:22	06:12 16:53 (C13) 21:22	07:52 (C8) 20:59 05:00	20:59 21:23 21:25	06:39 (C6) 22:07 31	04:26 22:08 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
16	08:40 16:12 17	14:21 (C15) 14:29 (C15) 17:19	07:42 17:19 17:19	06:31 18:20 20	16:37 (C13) 16:54 (C13) 20:24	06:09 16:54 (C13) 21:24	07:52 (C8) 20:59 05:00	20:59 21:25 21:27	06:39 (C6) 22:08 31	04:25 22:09 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
17	08:39 16:14 18	14:22 (C15) 14:30 (C15) 17:21	07:40 17:21 17:21	06:29 18:22 21	16:38 (C13) 16:55 (C13) 20:27	06:07 16:55 (C13) 21:25	07:52 (C8) 20:59 05:00	20:59 21:27 21:29	06:39 (C6) 22:09 31	04:25 22:10 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
18	08:37 16:16 19	14:23 (C15) 14:31 (C15) 17:23	07:38 17:23 17:23	06:26 18:24 22	16:39 (C13) 16:56 (C13) 20:30	06:04 16:56 (C13) 21:26	07:52 (C8) 20:59 05:00	20:59 21:29 21:31	06:39 (C6) 22:10 31	04:25 22:11 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
19	08:36 16:18 20	14:24 (C15) 14:32 (C15) 17:25	07:35 17:25 17:25	06:23 18:26 23	16:40 (C13) 16:57 (C13) 20:33	06:02 16:57 (C13) 21:27	07:52 (C8) 20:59 05:00	20:59 21:31 21:33	06:39 (C6) 22:11 31	04:25 22:12 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
20	08:35 16:20 21	14:25 (C15) 14:33 (C15) 17:28	07:33 17:28 17:28	06:21 18:28 24	16:41 (C13) 16:58 (C13) 20:34	06:00 16:58 (C13) 21:28	07:52 (C8) 20:59 05:00	20:59 21:33 21:35	06:39 (C6) 22:12 31	04:25 22:13 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
21	08:33 16:22 22	14:26 (C15) 14:34 (C15) 17:30	07:31 17:30 17:30	06:18 18:30 25	16:42 (C13) 16:59 (C13) 20:35	06:00 16:59 (C13) 21:29	07:52 (C8) 20:59 05:00	20:59 21:35 21:37	06:39 (C6) 22:13 31	04:25 22:14 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
22	08:32 16:24 23	14:27 (C15) 14:35 (C15) 17:32	07:28 17:32 17:32	06:15 18:32 26	16:43 (C13) 16:60 (C13) 20:36	06:00 16:60 (C13) 21:30	07:52 (C8) 20:59 05:00	20:59 21:37 21:39	06:39 (C6) 22:14 31	04:25 22:15 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
23	08:30 16:26 24	14:28 (C15) 14:36 (C15) 17:34	07:26 17:34 17:34	06:13 18:34 27	16:44 (C13) 16:61 (C13) 20:37	06:00 16:61 (C13) 21:31	07:52 (C8) 20:59 05:00	20:59 21:39 21:41	06:39 (C6) 22:15 31	04:26 22:16 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
24	08:29 16:28 25	14:29 (C15) 14:37 (C15) 17:36	07:23 17:36 17:36	06:10 18:36 28	16:45 (C13) 16:62 (C13) 20:38	06:00 16:62 (C13) 21:32	07:52 (C8) 20:59 05:00	20:59 21:41 21:43	06:39 (C6) 22:16 31	04:26 22:17 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
25	08:27 16:30 26	14:30 (C15) 14:38 (C15) 17:38	07:21 17:38 17:38	06:07 18:38 29	16:46 (C13) 16:63 (C13) 20:39	06:00 16:63 (C13) 21:33	07:52 (C8) 20:59 05:00	20:59 21:43 21:45	06:39 (C6) 22:17 31	04:26 22:18 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
26	08:25 16:32 27	14:31 (C15) 14:39 (C15) 17:41	07:18 17:39 17:39	06:05 18:40 30	16:47 (C13) 16:64 (C13) 20:40	06:00 16:64 (C13) 21:34	07:52 (C8) 20:59 05:00	20:59 21:45 21:47	06:39 (C6) 22:18 31	04:27 22:19 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
27	08:24 16:34 28	14:32 (C15) 14:40 (C15) 17:43	07:16 17:43 17:43	06:02 18:43 31	16:48 (C13) 16:65 (C13) 20:41	06:00 16:65 (C13) 21:35	07:52 (C8) 20:59 05:00	20:59 21:47 21:49	06:39 (C6) 22:19 31	04:27 22:20 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
28	08:22 16:36 29	14:33 (C15) 14:41 (C15) 17:45	07:13 17:45 17:45	05:59 18:45 32	16:49 (C13) 16:66 (C13) 20:42	06:00 16:66 (C13) 21:36	07:52 (C8) 20:59 05:00	20:59 21:49 21:51	06:39 (C6) 22:20 31	04:28 22:21 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
29	08:20 16:39 30	14:34 (C15) 14:42 (C15) 17:47	07:11 17:47 17:47	05:57 18:47 33	16:50 (C13) 16:67 (C13) 20:43	06:00 16:67 (C13) 21:37	07:52 (C8) 20:59 05:00	20:59 21:51 21:53	06:39 (C6) 22:21 31	04:28 22:22 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
30	08:18 16:41 31	14:35 (C15) 14:43 (C15) 17:49	07:09 17:49 17:49	05:55 18:49 34	16:51 (C13) 16:68 (C13) 20:44	06:00 16:68 (C13) 21:38	07:52 (C8) 20:59 05:00	20:59 21:53 21:55	06:39 (C6) 22:22 31	04:29 22:23 06:03 (C4)	05:32 (C4) 06:03 (C4) 05:32 (C4)
Potential sun hours	235	266	366	426	508	529	595	633	663	685	695
Total, worst case	171	193	602	317	433	935	57	57	57	57	57
Sun reduction	0.13	0.20	0.41	0.50	0.57	0.56	0.57	0.57	0.57	0.57	0.56
Oper. time red.	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Wind dir. red.	0.66	0.67	0.66	0.65	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Total reduction	0.08	0.13	0.26	0.31	0.36	0.35	0.36	0.36	0.36	0.35	0.35
Total, real	14	24	154	97	155	330	155	155	155	155	155

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (147)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09 32	05:35 (C4) 06:07 (C4) 21:28	06:17 20:14	07:17 18:54 20	17:09 (C13) 17:29 (C13) 16:36	08:24 15:45 6 14:04 (C15)
2	04:31 22:08 31	05:36 (C4) 06:07 (C4) 21:26	06:19 20:11	07:19 18:51 23	17:07 (C13) 17:30 (C13) 16:34	08:26 15:44 10 14:06 (C15)
3	04:32 22:08 32	05:36 (C4) 06:08 (C4) 21:24	06:21 20:09	07:21 18:48 26	17:05 (C13) 17:31 (C13) 16:31	08:27 15:43 12 14:07 (C15)
4	04:33 22:07 32	05:36 (C4) 06:08 (C4) 21:22	06:23 20:06	07:23 18:46 28	17:04 (C13) 17:32 (C13) 16:29	08:29 15:42 14 14:09 (C15)
5	04:34 22:07 32	05:36 (C4) 06:08 (C4) 21:19	06:25 20:03	07:25 18:43 30	17:02 (C13) 17:32 (C13) 16:27	08:31 15:42 15 14:10 (C15)
6	04:35 22:06 31	05:37 (C4) 06:08 (C4) 21:17	06:27 20:01	07:27 18:40 32	17:01 (C13) 17:33 (C13) 16:25	08:32 15:41 16 14:11 (C15)
7	04:36 22:05 32	05:37 (C4) 06:09 (C4) 21:15	06:29 19:58	07:29 18:38 33	17:00 (C13) 17:33 (C13) 16:23	08:34 15:40 18 14:12 (C15)
8	04:37 22:04 32	05:37 (C4) 06:09 (C4) 21:13	06:31 19:55	07:31 18:35 34	16:59 (C13) 17:33 (C13) 16:21	08:35 15:40 19 14:13 (C15)
9	04:38 22:03 32	05:37 (C4) 06:09 (C4) 21:11	06:33 19:53	07:33 18:32 33	16:59 (C13) 17:32 (C13) 16:19	08:36 15:39 19 14:13 (C15)
10	04:39 22:02 32	05:37 (C4) 06:09 (C4) 21:08	06:35 19:50	07:35 18:30 34	16:59 (C13) 17:33 (C13) 16:17	08:38 15:39 19 14:14 (C15)
11	04:41 22:01 32	05:37 (C4) 06:09 (C4) 21:06	06:37 19:47	07:37 18:27 34	16:59 (C13) 17:33 (C13) 16:15	08:39 15:38 20 14:15 (C15)
12	04:42 22:00 32	05:38 (C4) 06:10 (C4) 21:04	06:39 19:45	07:39 18:25 33	16:59 (C13) 17:32 (C13) 16:13	08:40 15:38 21 14:15 (C15)
13	04:43 21:59 31	05:38 (C4) 06:09 (C4) 21:01	06:41 19:42	07:41 18:22 32	16:59 (C13) 17:31 (C13) 16:11	08:41 15:38 20 14:16 (C15)
14	04:45 21:58 31	05:38 (C4) 06:09 (C4) 20:59	06:43 19:39	07:43 18:19 31	16:59 (C13) 17:30 (C13) 16:09	08:43 15:38 21 14:17 (C15)
15	04:46 21:56 31	05:38 (C4) 06:09 (C4) 20:57	06:45 19:37	07:45 18:17 30	16:59 (C13) 17:30 (C13) 16:07	08:44 15:38 21 14:17 (C15)
16	04:48 21:55 30	05:39 (C4) 06:09 (C4) 20:54	06:47 19:34	07:47 18:14 29	16:59 (C13) 17:29 (C13) 16:06	08:45 15:38 22 14:18 (C15)
17	04:49 21:54 30	05:39 (C4) 06:09 (C4) 20:52	06:49 19:31	07:49 18:12 26	16:59 (C13) 17:27 (C13) 16:04	08:46 15:38 22 14:19 (C15)
18	04:51 21:52 29	05:40 (C4) 06:09 (C4) 20:49	06:51 19:28	07:51 18:09 23	16:59 (C13) 17:25 (C13) 16:02	08:47 15:38 22 14:19 (C15)
19	04:52 21:51 28	05:40 (C4) 06:08 (C4) 20:47	06:53 19:26	07:53 18:07 20	16:59 (C13) 17:03 (C13) 16:01	08:47 15:38 22 14:19 (C15)
20	04:54 21:49 28	05:41 (C4) 06:09 (C4) 20:45	06:55 19:23	07:55 18:04 15	16:59 (C13) 17:06 (C13) 15:59	08:48 15:38 22 14:20 (C15)
21	04:56 21:48 27	05:41 (C4) 06:08 (C4) 20:42	06:57 19:20	07:57 18:02 7	16:59 (C13) 17:10 (C13) 15:58	08:48 15:39 22 14:21 (C15)
22	04:57 21:46 26	05:42 (C4) 06:08 (C4) 20:40	06:59 19:18	08:01 17:59 11	16:59 (C13) 17:11 (C13) 15:56	08:49 15:39 22 14:21 (C15)
23	04:59 21:44 24	05:42 (C4) 06:06 (C4) 20:37	07:01 19:15	08:03 17:57 6	16:59 (C13) 17:12 (C13) 15:55	08:49 15:40 22 14:21 (C15)
24	05:01 21:43 23	05:43 (C4) 06:06 (C4) 20:35	07:03 19:12	08:05 17:55	16:59 (C13) 15:53	08:50 15:40 22 14:22 (C15)
25	05:03 21:41 21	05:44 (C4) 06:05 (C4) 20:32	07:05 19:10	08:07 16:52	16:59 (C13) 15:52	08:50 15:41 22 14:22 (C15)
26	05:04 21:39 19	05:45 (C4) 06:04 (C4) 20:29	07:07 19:07	08:09 16:50	16:59 (C13) 15:51	08:50 15:42 21 14:22 (C15)
27	05:06 21:37 16	05:47 (C4) 06:03 (C4) 20:27	07:09 19:04	08:11 16:47	16:59 (C13) 15:49	08:51 15:43 22 14:23 (C15)
28	05:08 21:36 12	05:48 (C4) 06:00 (C4) 20:24	07:11 19:02	08:13 16:45	16:59 (C13) 15:48	08:51 15:44 21 14:23 (C15)
29	05:10 21:34 3	05:53 (C4) 05:56 (C4) 20:22	07:13 18:59	08:15 16:43	16:59 (C13) 15:47	08:51 15:44 22 14:24 (C15)
30	05:12 21:32	06:13 20:19	07:15 18:56	17:13 (C13) 17:27 (C13)	08:17 15:46	08:51 15:46 21 14:24 (C15)
31	05:14 21:30	06:15 20:16	07:17	07:20 16:38	08:19 15:47	08:51 15:47 21 14:24 (C15)
Potential sun hours	529	469	385	324	247	216
Total, worst case	791	296	260	573		599
Sun reduction	0.49	0.50	0.43	0.26		0.07
Oper. time red.	0.94	0.94	0.94	0.94		0.94
Wind dir. red.	0.67	0.65	0.65	0.67		0.66
Total reduction	0.31	0.31	0.26	0.16		0.04
Total, real	247	90	68	93		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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Upiš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (210)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:16	05:08 21:17	04:27 22:05	04:42 22:00	05:37 21:03	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:22	07:30 17:30	06:18 18:30	05:56 20:34	04:52 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:26	07:25 17:34	06:13 18:34	05:52 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:40	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Urbani 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (108)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:49	08:15 16:46	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:27 15:44
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:56	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:19	06:25 20:04	07:26 18:43	07:31 16:28	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:32 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:23 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:39
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:12	08:41 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:24	06:26 18:24	06:04 20:28	04:57 21:29	04:26 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:26 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:26 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:00 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:46 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:42
26	08:25 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:50 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:37	06:08 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:36	06:10 20:24	07:11 19:02	07:14 16:45	08:19 15:49	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:12 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:16 20:17		07:20 16:38		08:51 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Urgas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (55)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Uzkalnini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (211)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:47	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11	07:19 18:50	07:24 16:33	08:26 15:43
3	08:50 15:50	08:10 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:42
4	08:49 15:51	08:08 16:51	07:03 17:53	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:42	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:22	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:09	04:28 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:11	04:28 22:02	04:37 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:06	06:24 20:11	05:12 21:13	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	08:39 15:38
12	08:44 16:04	07:51 17:09	06:42 18:11	06:19 20:15	05:08 21:17	04:26 22:05	04:41 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:12	08:40 15:37
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:41 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:25 22:06	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:37
15	08:41 16:09	07:44 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:16	07:52 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:33	07:48 18:14	07:55 16:05	08:44 15:37
17	08:38 16:13	07:40 17:20	06:28 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:03	08:45 15:37
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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vaivarini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (171)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December		
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	05:16 (C14) 05:39 (C14)	04:30 22:09	05:23 (C14) 05:46 (C14)	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	05:16 (C14) 05:39 (C14)	04:31 22:08	05:22 (C14) 05:45 (C14)	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	05:17 (C14) 05:40 (C14)	04:32 22:08	05:23 (C14) 05:45 (C14)	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	05:17 (C14) 05:40 (C14)	04:33 22:07	05:23 (C14) 05:46 (C14)	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	05:17 (C14) 05:40 (C14)	04:34 22:07	05:23 (C14) 05:46 (C14)	05:24 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	05:17 (C14) 05:40 (C14)	04:35 22:06	05:23 (C14) 05:46 (C14)	05:26 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	05:18 (C14) 05:41 (C14)	04:36 22:05	05:23 (C14) 05:47 (C14)	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	05:18 (C14) 05:41 (C14)	04:37 22:04	05:23 (C14) 05:47 (C14)	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	05:18 (C14) 05:41 (C14)	04:38 22:03	05:24 (C14) 05:47 (C14)	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	05:18 (C14) 05:41 (C14)	04:40 22:02	05:24 (C14) 05:47 (C14)	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	05:19 (C14) 05:41 (C14)	04:41 22:01	05:25 (C14) 05:48 (C14)	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	05:18 (C14) 05:41 (C14)	04:42 22:00	05:25 (C14) 05:48 (C14)	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	05:19 (C14) 05:41 (C14)	04:44 21:59	05:25 (C14) 05:47 (C14)	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:41 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	05:19 (C14) 05:42 (C14)	04:45 21:58	05:25 (C14) 05:47 (C14)	05:41 21:04	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	05:20 (C14) 05:42 (C14)	04:47 21:57	05:26 (C14) 05:48 (C14)	05:43 21:04	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	05:20 (C14) 05:42 (C14)	04:48 21:55	05:26 (C14) 05:47 (C14)	05:45 21:04	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	05:20 (C14) 05:41 (C14)	04:50 21:54	05:27 (C14) 05:47 (C14)	05:47 21:02	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	05:20 (C14) 05:42 (C14)	04:51 21:52	05:27 (C14) 05:47 (C14)	05:49 21:04	06:51 19:29	07:52 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09	05:21 (C14) 05:43 (C14)	04:53 21:51	05:28 (C14) 05:46 (C14)	05:51 21:02	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	05:21 (C14) 05:43 (C14)	04:54 21:49	05:30 (C14) 05:46 (C14)	05:53 21:04	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	05:21 (C14) 05:43 (C14)	04:56 21:48	05:31 (C14) 05:45 (C14)	05:55 21:04	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	05:21 (C14) 05:43 (C14)	04:58 21:46	05:33 (C14) 05:44 (C14)	05:57 21:04	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:21 (C14) 05:43 (C14)	04:59 21:45	05:35 (C14) 05:43 (C14)	05:59 21:04	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:22 (C14) 05:44 (C14)	05:01 21:43	05:36 (C14) 05:41 (C14)	06:01 21:04	07:03 19:12	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:22 (C14) 05:43 (C14)	05:03 21:41	05:36 (C14) 05:41 (C14)	06:03 21:04	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:22 (C14) 05:44 (C14)	05:05 21:39	05:36 (C14) 05:41 (C14)	06:05 21:04	07:07 19:07	08:09 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:22 (C14) 05:44 (C14)	05:07 21:37	05:36 (C14) 05:41 (C14)	06:07 21:04	07:09 19:04	08:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:23 (C14) 05:45 (C14)	05:08 21:36	05:37 (C14) 05:41 (C14)	06:09 21:04	07:11 19:02	08:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39	07:10 17:47	05:57 18:47	05:37 20:51	04:40 21:48	04:29 22:10	05:22 (C14) 05:44 (C14)	05:10 21:34	05:38 (C14) 05:41 (C14)	06:11 21:04	07:13 18:59	08:16 16:43	08:21 15:47	08:51 15:45
30	08:18 16:41	07:06 17:49	05:54 18:49	05:35 20:53	04:39 21:50	04:30 22:09	05:23 (C14) 05:45 (C14)	05:12 21:32	05:39 (C14) 05:41 (C14)	06:13 21:04	07:15 18:56	08:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:05 17:51	05:52 18:51	05:33 20:53	04:37 21:51	04:37 21:51	05:23 (C14) 05:45 (C14)	05:12 21:30	05:41 (C14) 05:41 (C14)	06:15 21:04	07:17 18:56	08:19 16:41	08:24 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216		
Total, worst case					214	670	476							
Sun reduction					0.57	0.56	0.49							
Oper. time red.					0.94	0.94	0.94							
Wind dir. red.					0.67	0.67	0.67							
Total reduction					0.36	0.35	0.31							
Total, real					77	237	148							

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vecleiš upi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (181)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vecumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (18)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:47	06:48 19:53	05:32 20:55	04:35 21:53	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:09	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:09	07:21 18:48	07:27 16:31	08:28 15:43
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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vecveveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	07:29 (C15) 21 07:50 (C15)	05:33 20:55 36 07:15 (C14)	04:36 21:53 20 05:30 (C13)
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	07:29 (C15) 19 07:48 (C15)	05:30 20:57 36 07:15 (C14)	04:35 21:54 21 05:30 (C13)
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	07:31 (C15) 16 07:47 (C15)	05:28 21:00 34 07:14 (C14)	04:34 21:55 21 05:30 (C13)
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	07:32 (C15) 13 07:45 (C15)	05:26 21:02 33 07:13 (C14)	04:33 21:57 22 05:31 (C13)
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	07:34 (C15) 7 07:41 (C15)	05:24 21:04 31 07:12 (C14)	04:32 21:58 23 05:32 (C13)
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	07:41 (C15)	05:21 21:06 29 07:11 (C14)	04:31 21:59 23 05:32 (C13)
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	07:41 (C15)	05:19 21:08 27 07:10 (C14)	04:30 22:00 22 05:32 (C13)
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	07:41 (C15)	05:17 21:10 24 07:08 (C14)	04:29 22:01 23 05:32 (C13)
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	07:41 (C15)	05:15 21:12 21 07:07 (C14)	04:29 22:02 23 05:32 (C13)
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	07:41 (C15)	05:13 21:14 16 07:04 (C14)	04:28 22:03 24 05:33 (C13)
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	07:41 (C15)	05:11 21:16 11 07:01 (C14)	04:27 22:04 23 05:33 (C13)
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	06:59 (C14) 5 07:04 (C14)	05:09 21:18 22:05 23 05:33 (C13)	04:27 22:05 23 05:33 (C13)
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	06:54 (C14) 15 07:09 (C14)	05:07 21:20 22:06 24 05:34 (C13)	04:27 22:06 24 05:34 (C13)
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	06:50 (C14) 21 07:11 (C14)	05:05 21:22 22:07 24 05:34 (C13)	04:26 22:07 24 05:34 (C13)
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	06:48 (C14) 25 07:13 (C14)	05:03 21:24 22:07 23 05:34 (C13)	04:26 22:07 23 05:34 (C13)
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	06:46 (C14) 28 07:14 (C14)	05:01 21:25 22:08 24 05:34 (C13)	04:26 22:08 24 05:34 (C13)
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	06:45 (C14) 31 07:16 (C14)	04:59 21:27 22:08 24 05:34 (C13)	04:25 22:08 24 05:34 (C13)
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	06:43 (C14) 33 07:16 (C14)	04:57 21:29 22:09 23 05:34 (C13)	04:25 22:09 23 05:34 (C13)
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	06:43 (C14) 34 07:17 (C14)	04:55 21:31 22:09 23 05:34 (C13)	04:25 22:09 23 05:34 (C13)
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	06:42 (C14) 36 07:18 (C14)	04:54 21:33 22:10 23 05:35 (C13)	04:25 22:10 23 05:35 (C13)
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	06:41 (C14) 37 07:18 (C14)	04:52 21:35 22:10 23 05:35 (C13)	04:25 22:10 23 05:35 (C13)
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	06:40 (C14) 38 07:18 (C14)	04:50 21:36 22:10 23 05:35 (C13)	04:26 22:10 23 05:35 (C13)
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	06:39 (C14) 39 07:18 (C14)	04:48 21:38 22:10 23 05:35 (C13)	04:26 22:10 23 05:35 (C13)
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	06:39 (C14) 39 07:18 (C14)	04:47 21:40 3 05:22 (C13)	04:26 22:10 23 05:36 (C13)
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	06:39 (C14) 39 07:18 (C14)	04:45 21:42 6 05:24 (C13)	04:27 22:10 23 05:36 (C13)
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	06:38 (C14) 39 07:17 (C14)	04:44 21:43 9 05:26 (C13)	04:27 22:10 24 05:37 (C13)
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	06:38 (C14) 39 07:17 (C14)	04:42 21:45 11 05:27 (C13)	04:28 22:10 24 05:37 (C13)
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	06:39 (C14) 38 07:17 (C14)	04:41 21:47 13 05:27 (C13)	04:28 22:10 23 05:37 (C13)
29	08:20 16:39	07:11 17:47	06:57 19:47	05:37 20:51	06:39 (C14) 38 07:17 (C14)	04:40 21:48 15 05:28 (C13)	04:29 22:10 24 05:37 (C13)
30	08:18 16:41	07:09 17:49	06:54 19:49	05:35 20:53	06:39 (C14) 38 07:17 (C14)	04:38 21:50 17 05:29 (C13)	04:29 22:09 23 05:37 (C13)
31	08:17 16:43	07:08 17:51	06:51 19:51	05:34 20:54	07:17 (C14)	04:37 21:51 18 05:29 (C13)	04:29 22:09 23 05:37 (C13)
Potential sun hours	235	266	366	426	508	528	
Total, worst case			184	688	390	689	
Sun reduction			0.41	0.50	0.57	0.56	
Oper. time red.			0.94	0.94	0.94	0.94	
Wind dir. red.			0.65	0.66	0.66	0.67	
Total reduction			0.25	0.31	0.35	0.35	
Total, real			46	212	138	243	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vecveveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (45)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July			August			September			October	November	December
1	04:30		05:14 (C13)	05:16		07:03 (C14)	06:17		07:17	07:23	08:24	
	22:09	24	05:38 (C13)	21:28	5	07:08 (C14)	20:14		18:54	16:36	15:45	
2	04:31		05:14 (C13)	05:18		06:59 (C14)	06:19		07:19	07:25	08:26	
	22:08	23	05:37 (C13)	21:26	14	07:13 (C14)	20:11		18:51	16:34	15:44	
3	04:32		05:14 (C13)	05:20		06:57 (C14)	06:21		07:21	07:27	08:28	
	22:08	23	05:37 (C13)	21:24	18	07:15 (C14)	20:09		18:48	16:32	15:43	
4	04:33		05:15 (C13)	05:22		06:56 (C14)	06:23		07:23	07:29	08:29	
	22:07	23	05:38 (C13)	21:22	21	07:17 (C14)	20:06		18:46	16:30	15:43	
5	04:34		05:15 (C13)	05:24		06:54 (C14)	06:25		07:25	07:31	08:31	
	22:07	23	05:38 (C13)	21:19	25	07:19 (C14)	20:03		18:43	16:27	15:42	
6	04:35		05:15 (C13)	05:25		06:52 (C14)	06:27		07:28	07:33	08:32	
	22:06	23	05:38 (C13)	21:17	28	07:20 (C14)	20:01		18:40	16:25	15:41	
7	04:36		05:15 (C13)	05:27		06:51 (C14)	06:29	7	07:29 (C15)	07:30	07:36	
	22:05	23	05:38 (C13)	21:15	30	07:21 (C14)	19:58		18:38	16:23	15:40	
8	04:37		05:16 (C13)	05:29		06:50 (C14)	06:31		07:26 (C15)	07:32	07:38	
	22:04	22	05:38 (C13)	21:13	32	07:22 (C14)	19:56	13	07:39 (C15)	18:35	16:21	
9	04:38		05:16 (C13)	05:31		06:50 (C14)	06:33		07:24 (C15)	07:34	07:40	
	22:03	22	05:38 (C13)	21:11	33	07:23 (C14)	19:53	16	07:40 (C15)	18:33	16:19	
10	04:40		05:16 (C13)	05:33		06:49 (C14)	06:35		07:22 (C15)	07:36	07:42	
	22:02	22	05:38 (C13)	21:08	34	07:23 (C14)	19:50	19	07:41 (C15)	18:30	16:17	
11	04:41		05:18 (C13)	05:35		06:48 (C14)	06:37		07:21 (C15)	07:38	07:44	
	22:01	20	05:38 (C13)	21:06	36	07:24 (C14)	19:47	21	07:42 (C15)	18:27	16:15	
12	04:42		05:19 (C13)	05:37		06:47 (C14)	06:39		07:20 (C15)	07:40	07:46	
	22:00	19	05:38 (C13)	21:04	37	07:24 (C14)	19:45	22	07:42 (C15)	18:25	16:13	
13	04:44		05:20 (C13)	05:39		06:47 (C14)	06:41		07:20 (C15)	07:42	07:49	
	21:59	17	05:37 (C13)	21:02	37	07:24 (C14)	19:42	22	07:42 (C15)	18:22	16:11	
14	04:45		05:21 (C13)	05:41		06:46 (C14)	06:43		07:19 (C15)	07:44	07:51	
	21:58	16	05:37 (C13)	20:59	38	07:24 (C14)	19:39	23	07:42 (C15)	18:20	16:10	
15	04:46		05:23 (C13)	05:43		06:46 (C14)	06:45		07:19 (C15)	07:46	07:53	
	21:57	14	05:37 (C13)	20:57	39	07:25 (C14)	19:37	23	07:42 (C15)	18:17	16:08	
16	04:48		05:24 (C13)	05:45		06:46 (C14)	06:47		07:19 (C15)	07:48	07:55	
	21:55	12	05:36 (C13)	20:54	39	07:25 (C14)	19:34	22	07:41 (C15)	18:15	16:06	
17	04:49		05:25 (C13)	05:47		06:46 (C14)	06:49		07:19 (C15)	07:50	07:57	
	21:54	10	05:35 (C13)	20:52	39	07:25 (C14)	19:31	22	07:41 (C15)	18:12	16:04	
18	04:51		05:27 (C13)	05:49		06:46 (C14)	06:51		07:20 (C15)	07:52	07:59	
	21:52	8	05:35 (C13)	20:50	39	07:25 (C14)	19:29	19	07:39 (C15)	18:09	16:03	
19	04:53		05:28 (C13)	05:51		06:45 (C14)	06:53		07:22 (C15)	07:55	08:01	
	21:51	5	05:33 (C13)	20:47	38	07:23 (C14)	19:26	16	07:38 (C15)	18:07	16:01	
20	04:54		05:30 (C13)	05:53		06:45 (C14)	06:55		07:24 (C15)	07:57	08:03	
	21:49	1	05:31 (C13)	20:45	38	07:23 (C14)	19:23	12	07:36 (C15)	18:04	15:59	
21	04:56			05:55		06:45 (C14)	06:57		07:26 (C15)	07:59	08:05	
	21:48			20:42	38	07:23 (C14)	19:21	7	07:33 (C15)	18:02	15:58	
22	04:58			05:57		06:45 (C14)	06:59		08:01	08:07	08:49	
	21:46			20:40	37	07:22 (C14)	19:18		18:00	15:56	15:40	
23	04:59			05:59		06:46 (C14)	07:01		08:03	08:09	08:49	
	21:45			20:37	35	07:21 (C14)	19:15		17:57	15:55	15:40	
24	05:01			06:01		06:46 (C14)	07:03		08:05	08:11	08:50	
	21:43			20:35	35	07:21 (C14)	19:12		17:55	15:53	15:41	
25	05:03			06:03		06:47 (C14)	07:05		07:07	08:13	08:50	
	21:41			20:32	33	07:20 (C14)	19:10		16:52	15:52	15:41	
26	05:05			06:05		06:48 (C14)	07:07		07:10	08:15	08:51	
	21:39			20:30	30	07:18 (C14)	19:07		16:50	15:51	15:42	
27	05:06			06:07		06:49 (C14)	07:09		07:12	08:17	08:51	
	21:38			20:27	28	07:17 (C14)	19:04		16:48	15:50	15:43	
28	05:08			06:09		06:49 (C14)	07:11		07:14	08:19	08:51	
	21:36			20:24	25	07:14 (C14)	19:02		16:45	15:48	15:44	
29	05:10			06:11		06:51 (C14)	07:13		07:16	08:21	08:51	
	21:34			20:22	21	07:12 (C14)	18:59		16:43	15:47	15:45	
30	05:12			06:13		06:54 (C14)	07:15		07:18	08:22	08:51	
	21:32			20:19	15	07:09 (C14)	18:56		16:41	15:46	15:46	
31	05:14			06:15		06:59 (C14)			07:20		08:51	
	21:30			20:17	4	07:03 (C14)			16:38		15:47	
Potential sun hours	529			469			385		324	247	216	
Total, worst case		350			921		264					
Sun reduction		0.49			0.50		0.43					
Oper. time red.		0.94			0.94		0.94					
Wind dir. red.		0.67			0.66		0.65					
Total reduction		0.31			0.31		0.26					
Total, real		109			284		69					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Viduslejas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (5)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	09:05 (C13) 17:48	07:11 19:53	06:49 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:47	09:05 (C13) 17:50	07:08 19:55	06:46 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	09:06 (C13) 17:52	07:06 19:57	06:43 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	09:07 (C13) 17:54	07:03 19:59	06:41 21:02	04:33 21:57	04:33 22:07	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	09:08 (C13) 17:56	07:01 20:01	06:38 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	09:08 (C13) 17:58	06:58 20:03	06:35 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	09:10 (C13) 18:01	06:55 20:06	06:33 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	09:12 (C13) 18:03	06:53 20:08	06:30 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 15:59	07:58 17:03	09:14 (C13) 18:05	06:50 20:10	06:28 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	09:22 (C13) 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	09:22 (C13) 18:07	06:45 20:12	06:22 21:14	04:27 22:03	04:41 22:02	05:35 21:09	06:37 19:50	07:38 18:30	07:44 16:17	08:39 15:39
12	08:44 16:05	07:52 17:10	09:22 (C13) 18:09	06:42 20:14	06:20 21:16	04:27 22:04	04:42 22:01	05:37 21:06	06:39 19:47	07:40 18:27	07:46 16:15	08:40 15:38
13	08:43 16:06	07:50 17:12	09:22 (C13) 18:13	06:40 20:18	06:17 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	09:22 (C13) 18:15	06:37 20:20	06:15 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	09:22 (C13) 18:18	06:34 20:22	06:12 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	09:22 (C13) 18:20	06:32 20:24	06:09 21:26	04:25 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	09:22 (C13) 18:22	06:29 20:26	06:07 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	09:22 (C13) 18:26	06:26 20:28	06:04 21:29	04:25 22:10	04:51 21:53	05:49 20:50	06:51 19:29	07:52 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	09:22 (C13) 18:28	06:24 20:31	06:02 21:31	04:25 22:11	04:52 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	09:22 (C13) 18:30	06:21 20:33	05:59 21:33	04:25 22:12	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	09:22 (C13) 18:32	06:18 20:35	05:57 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	09:22 (C13) 18:34	06:16 20:39	05:54 21:38	04:25 22:11	04:57 21:45	05:57 20:37	06:59 19:15	08:01 17:57	08:07 15:55	08:50 15:40
23	08:30 16:26	07:26 17:34	09:22 (C13) 18:36	06:13 20:41	05:52 21:40	04:26 22:10	04:59 21:43	05:59 20:35	07:01 19:12	08:03 17:55	08:09 15:53	08:51 15:41
24	08:29 16:30	07:23 17:39	09:22 (C13) 18:38	06:10 20:43	05:49 21:42	04:26 22:10	05:01 21:41	06:01 20:32	07:03 19:10	08:05 17:52	08:11 15:52	08:51 15:42
25	08:27 16:32	07:21 17:41	09:22 (C13) 18:41	06:08 20:45	05:47 21:43	04:26 22:10	05:03 21:39	06:03 20:30	07:05 19:07	07:07 17:50	08:13 15:51	08:50 15:42
26	08:26 16:34	07:18 17:43	09:22 (C13) 18:43	06:05 20:47	05:44 21:45	04:27 22:10	05:05 21:38	06:05 20:27	07:07 19:04	07:10 17:47	08:15 15:49	08:51 15:43
27	08:24 16:36	07:16 17:45	09:22 (C13) 18:45	06:02 20:49	05:42 21:47	04:27 22:10	05:06 21:36	06:07 20:24	07:09 19:02	07:12 17:45	08:17 15:48	08:51 15:44
28	08:22 16:38	07:13 17:49	09:22 (C13) 18:47	05:59 20:51	05:40 21:48	04:28 22:10	05:08 21:34	06:09 20:22	07:11 19:02	07:14 17:43	08:19 15:47	08:51 15:45
29	08:20 16:39	07:05 17:50	09:22 (C13) 18:49	05:57 20:53	05:37 21:50	04:30 22:09	05:10 21:32	06:11 20:19	07:13 18:56	07:16 17:41	08:21 15:46	08:51 15:46
30	08:19 16:41	07:05 17:51	09:22 (C13) 18:51	05:54 20:53	05:35 21:50	04:38 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 17:41	08:22 15:46	08:51 15:46
31	08:17 16:43	07:05 17:53	09:22 (C13) 18:51	05:51 20:51	05:37 21:51	04:37 22:10	05:14 21:30	06:15 20:17	07:20 18:56	07:20 17:38	08:22 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	254	174									429	
Sun reduction	0.13	0.20									0.08	
Oper. time red.	0.94	0.94									0.94	
Wind dir. red.	0.59	0.59									0.59	
Total reduction	0.07	0.11									0.05	
Total, real	19	19									20	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vijas - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (29)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:49	08:15 16:46	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:28 15:44
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:24 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:26 20:04	07:26 18:43	07:31 16:28	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:41	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 20:04	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 20:06	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:32 21:11	06:33 20:06	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 20:06	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:23 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 20:06	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 20:06	07:40 18:25	07:46 16:13	08:40 15:39
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 20:06	07:42 18:22	07:49 16:12	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 20:06	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 20:06	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 20:06	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 20:06	07:50 18:12	07:57 16:04	08:46 15:38
18	08:37 16:16	07:38 17:24	06:26 18:24	06:04 20:28	04:57 21:29	04:26 22:09	04:51 21:52	05:49 20:50	06:51 20:06	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:26 22:09	04:53 21:51	05:51 20:47	06:53 20:06	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:54 22:10	04:54 21:49	05:53 20:45	06:55 20:06	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 20:06	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 20:06	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	05:00 21:45	05:59 20:37	07:01 20:06	08:03 18:00	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:50 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 20:06	08:05 18:00	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:46 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 20:06	08:07 18:00	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:06 20:30	07:07 20:06	08:08 18:00	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:08 20:27	07:09 20:06	08:10 18:00	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:10 20:24	07:11 20:06	08:11 18:00	08:19 15:49	08:51 15:44
29	08:20 16:39	07:11 17:47	05:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:12 20:22	07:13 20:06	08:12 18:00	08:21 15:47	08:51 15:45
30	08:19 16:41	07:11 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	08:15 18:00	08:24 15:47	08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vilbaude - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (17)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:18 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:20 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:22 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:41	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:30 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:24	06:26 18:24	06:04 20:28	04:57 21:29	04:26 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:26 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:37	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:46 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:49	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:12 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:14 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:16 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vilniš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (138)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51		14:01 (C13)	08:15		14:08 (C13)	07:11		06:49				05:32		04:36			
	15:48	30	14:31 (C13)	16:45	37	14:45 (C13)	17:47		19:53				20:55		21:53			
2	08:50		14:02 (C13)	08:13		14:09 (C13)	07:08		06:46				05:30		04:35			
	15:49	30	14:32 (C13)	16:47	35	14:44 (C13)	17:50		19:55				20:57		21:54			
3	08:50		14:01 (C13)	08:11		14:10 (C13)	07:06		06:43				05:28		04:34			
	15:51	32	14:33 (C13)	16:50	34	14:44 (C13)	17:52		19:57				20:59		21:55			
4	08:50		14:01 (C13)	08:09		14:11 (C13)	07:03		06:41				05:26		04:33			
	15:52	32	14:33 (C13)	16:52	32	14:43 (C13)	17:54		19:59				21:02		21:57			
5	08:49		14:02 (C13)	08:07		14:13 (C13)	07:00		06:38				05:23		04:32			
	15:53	33	14:35 (C13)	16:54	29	14:42 (C13)	17:56		20:01				21:04		21:58			
6	08:49		14:01 (C13)	08:05		14:14 (C13)	06:58		06:35				05:21		04:31			
	15:55	35	14:36 (C13)	16:56	26	14:40 (C13)	17:58		20:03				21:06		21:59			
7	08:48		14:01 (C13)	08:03		14:16 (C13)	06:55		06:33				05:19		04:30			
	15:56	35	14:36 (C13)	16:59	23	14:39 (C13)	18:00		20:05				21:08		22:00			
8	08:47		14:01 (C13)	08:00		14:19 (C13)	06:53		06:30				05:17		04:29			
	15:58	36	14:37 (C13)	17:01	18	14:37 (C13)	18:03		20:07				21:10		22:01			
9	08:47		14:01 (C13)	07:58		14:23 (C13)	06:50		06:27			06:53 (C4)	05:15		04:28			
	15:59	37	14:38 (C13)	17:03	9	14:32 (C13)	18:05		20:10		3	06:56 (C4)	21:12		22:02			
10	08:46		14:02 (C13)	07:56			06:47		06:25			06:50 (C4)	05:13		04:28			
	16:01	37	14:39 (C13)	17:05			18:07		20:12		9	06:59 (C4)	21:14		22:03			
11	08:45		14:02 (C13)	07:54			06:45		06:22			06:48 (C4)	05:10		04:27			
	16:03	38	14:40 (C13)	17:08			18:09		20:14		14	07:02 (C4)	21:16		22:04			
12	08:44		14:01 (C13)	07:52			06:42		06:20			06:45 (C4)	05:08		04:27			
	16:04	38	14:39 (C13)	17:10			18:11		20:16		17	07:02 (C4)	21:18		22:05			
13	08:43		14:01 (C13)	07:49			06:39		06:17			06:43 (C4)	05:06		04:26			
	16:06	39	14:40 (C13)	17:12			18:13		20:18		20	07:03 (C4)	21:20		22:06			
14	08:42		14:02 (C13)	07:47			06:37		06:14			06:42 (C4)	05:04		04:26			
	16:08	40	14:42 (C13)	17:14			18:15		20:20		21	07:03 (C4)	21:22		22:07			
15	08:41		14:01 (C13)	07:45			06:34		06:12			06:42 (C4)	05:02		04:26			
	16:10	41	14:42 (C13)	17:17			18:17		20:22		22	07:04 (C4)	21:24		22:07			
16	08:40		14:02 (C13)	07:43			06:31		06:09			06:41 (C4)	05:01		04:25			
	16:12	41	14:43 (C13)	17:19			18:20		20:24		22	07:03 (C4)	21:25		22:08			
17	08:39		14:01 (C13)	07:40			06:29		06:07			06:41 (C4)	04:59		04:25			
	16:14	42	14:43 (C13)	17:21			18:22		20:26		23	07:04 (C4)	21:27		22:08			
18	08:37		14:02 (C13)	07:38			06:26		06:04			06:40 (C4)	04:57		04:25			
	16:16	42	14:44 (C13)	17:23			18:24		20:28		23	07:03 (C4)	21:29		22:09			
19	08:36		14:02 (C13)	07:35			06:23		06:02			06:41 (C4)	04:55		04:25			
	16:18	42	14:44 (C13)	17:25			18:26		20:30		21	07:02 (C4)	21:31		22:09			
20	08:35		14:03 (C13)	07:33			06:21		05:59			06:41 (C4)	04:53		04:25			
	16:20	42	14:45 (C13)	17:28			18:28		20:32		20	07:01 (C4)	21:33		22:10			
21	08:33		14:03 (C13)	07:31			06:18		05:57			06:42 (C4)	04:52		04:25			
	16:22	42	14:45 (C13)	17:30			18:30		20:35		19	07:01 (C4)	21:35		22:10			
22	08:32		14:03 (C13)	07:28			06:15		05:54			06:43 (C4)	04:50		04:25			
	16:24	42	14:45 (C13)	17:32			18:32		20:37		17	07:00 (C4)	21:36		22:10			
23	08:30		14:03 (C13)	07:26			06:13		05:52			06:43 (C4)	04:48		04:26			
	16:26	42	14:45 (C13)	17:34			18:34		20:39		14	06:57 (C4)	21:38		22:10			
24	08:29		14:03 (C13)	07:23			06:10		05:49			06:46 (C4)	04:47		04:26			
	16:28	42	14:45 (C13)	17:37			18:36		20:41		9	06:55 (C4)	21:40		22:10			
25	08:27		14:04 (C13)	07:21			06:07		05:47				04:45		04:26			
	16:30	43	14:47 (C13)	17:39			18:38		20:43				21:42		22:10			
26	08:25		14:04 (C13)	07:18			06:05		05:44				04:44		04:27			
	16:32	43	14:47 (C13)	17:41			18:40		20:45				21:43		22:10			
27	08:24		14:05 (C13)	07:16			06:02		05:42				04:42		04:27			
	16:34	42	14:47 (C13)	17:43			18:43		20:47				21:45		22:10			
28	08:22		14:05 (C13)	07:13			05:59		05:40				04:41		04:28			
	16:36	42	14:47 (C13)	17:45			18:45		20:49				21:47		22:10			
29	08:20		14:06 (C13)				06:57		05:37				04:39		04:28			
	16:39	40	14:46 (C13)				19:47		20:51				21:48		22:10			
30	08:18		14:07 (C13)				06:54		05:35				04:38		04:29			
	16:41	39	14:46 (C13)				19:49		20:53				21:50		22:09			
31	08:17		14:07 (C13)				06:51						04:37					
	16:43	38	14:45 (C13)				19:51						21:51					
Potential sun hours	235			266			366		426				508		529			
Total, worst case	1197			243					274									
Sun reduction	0.13			0.20					0.50									
Oper. time red.	0.94			0.94					0.94									
Wind dir. red.	0.66			0.66					0.66									
Total reduction	0.08			0.13					0.31									
Total, real	100			31					85									

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vilniš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (138)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:16	06:17	06:47 (C4)	07:17	07:23
	22:09	21:28	20:14	14 07:01 (C4)	18:54	16:36
2	04:31	05:17	06:19	06:49 (C4)	07:19	07:25
	22:08	21:26	20:11	9 06:58 (C4)	18:51	16:34
3	04:32	05:19	06:21	06:51 (C4)	07:21	07:27
	22:08	21:24	20:09	3 06:54 (C4)	18:48	16:31
4	04:33	05:21	06:23	07:23	07:29	13:46 (C13)
	22:07	21:22	20:06	18:46	16:29	23 14:09 (C13)
5	04:34	05:23	06:25	07:25	07:31	13:43 (C13)
	22:07	21:19	20:03	18:43	16:27	27 14:10 (C13)
6	04:35	05:25	06:27	07:27	07:33	13:42 (C13)
	22:06	21:17	20:01	18:40	16:25	30 14:12 (C13)
7	04:36	05:27	06:29	07:29	07:36	13:41 (C13)
	22:05	21:15	19:58	18:38	16:23	32 14:13 (C13)
8	04:37	05:29	06:31	07:32	07:38	13:41 (C13)
	22:04	21:13	19:55	18:35	16:21	34 14:15 (C13)
9	04:38	05:31	06:33	07:34	07:40	13:39 (C13)
	22:03	21:11	19:53	18:32	16:19	36 14:15 (C13)
10	04:39	05:33	06:35	07:36	07:42	13:38 (C13)
	22:02	21:08	19:50	18:30	16:17	38 14:16 (C13)
11	04:41	05:35	06:37	07:38	07:44	13:38 (C13)
	22:01	21:06	19:47	18:27	16:15	39 14:17 (C13)
12	04:42	05:37	06:39	07:40	07:46	13:38 (C13)
	22:00	21:04	19:45	18:25	16:13	39 14:17 (C13)
13	04:43	05:39	06:41	07:42	07:49	13:38 (C13)
	21:59	21:01	19:42	18:22	16:11	40 14:18 (C13)
14	04:45	05:41	06:43	07:44	07:51	13:37 (C13)
	21:58	20:59	19:39	18:19	16:09	41 14:18 (C13)
15	04:46	05:43	06:45	07:46	07:53	13:37 (C13)
	21:57	20:57	19:37	18:17	16:08	41 14:18 (C13)
16	04:48	05:45	06:47	07:48	07:55	13:37 (C13)
	21:55	20:54	19:34	18:14	16:06	43 14:20 (C13)
17	04:49	05:47	06:49	07:50	07:57	13:37 (C13)
	21:54	20:52	19:31	18:12	16:04	42 14:19 (C13)
18	04:51	05:49	06:51	07:52	07:59	13:37 (C13)
	21:52	20:49	19:29	18:09	16:02	42 14:19 (C13)
19	04:52	05:51	06:53	07:54	08:01	13:38 (C13)
	21:51	20:47	19:26	18:07	16:01	42 14:20 (C13)
20	04:54	05:53	06:55	07:57	08:03	13:38 (C13)
	21:49	20:45	19:23	18:04	15:59	42 14:20 (C13)
21	04:56	05:55	06:57	07:59	08:05	13:38 (C13)
	21:48	20:42	19:20	18:02	15:58	42 14:20 (C13)
22	04:57	05:57	06:59	08:01	08:07	13:39 (C13)
	21:46	20:40	19:18	17:59	15:56	42 14:21 (C13)
23	04:59	05:59	07:01	08:03	08:09	13:39 (C13)
	21:45	20:37	19:15	17:57	15:55	42 14:21 (C13)
24	05:01	06:01	07:03	08:05	08:11	13:39 (C13)
	21:43	20:35	19:12	17:55	15:53	42 14:21 (C13)
25	05:03	06:03	07:05	08:07	08:13	13:39 (C13)
	21:41	20:32	19:10	16:52	15:52	42 14:21 (C13)
26	05:04	06:05	07:07	08:09	08:15	13:40 (C13)
	21:39	20:29	19:07	16:50	15:51	41 14:21 (C13)
27	05:06	06:07	07:09	08:12	08:17	13:41 (C13)
	21:37	20:27	19:04	16:47	15:49	41 14:22 (C13)
28	05:08	06:09	07:11	08:14	08:19	13:42 (C13)
	21:36	20:24	19:02	16:45	15:48	40 14:22 (C13)
29	05:10	06:11	07:13	08:16	08:21	13:42 (C13)
	21:34	20:22	18:59	16:43	15:47	40 14:22 (C13)
30	05:12	06:13	07:15	08:18	08:22	13:43 (C13)
	21:32	20:19	18:56	16:40	15:46	39 14:22 (C13)
31	05:14	06:15	07:17	08:20		13:44 (C13)
	21:30	20:17	18:54	16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		248	26		1073	923
Sun reduction		0.50	0.43		0.08	0.07
Oper. time red.		0.94	0.94		0.94	0.94
Wind dir. red.		0.66	0.66		0.66	0.66
Total reduction		0.31	0.26		0.05	0.04
Total, real		77	7		55	41

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vizbuli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (7)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vizuli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (74)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51	08:15	07:11	06:49	05:33	04:36	04:30	05:16	06:17	07:17	07:23	08:24
	15:48	16:45	17:48	19:53	20:56	21:53	22:09	21:28	20:14	18:54	16:36	15:45
2	08:51	08:13	07:08	06:46	05:30	04:35	04:31	05:18	06:19	07:19	07:25	08:26
	15:49	16:48	17:50	19:55	20:58	21:54	22:09	21:26	20:11	18:51	16:34	15:44
3	08:50	08:11	07:06	06:44	05:28	04:34	04:32	05:20	06:21	07:21	07:27	08:28
	15:51	16:50	17:52	19:57	21:00	21:55	22:08	21:24	20:09	18:48	16:32	15:43
4	08:50	08:09	07:03	06:41	05:26	04:33	04:33	05:22	06:23	07:23	07:29	08:29
	15:52	16:52	17:54	19:59	21:02	21:57	22:07	21:22	20:06	18:46	16:30	15:42
5	08:49	08:07	07:01	06:38	05:24	04:32	04:34	05:23	06:25	07:26	07:31	08:31
	15:53	16:54	17:56	20:01	21:04	21:58	22:07	21:20	20:04	18:43	16:27	15:42
6	08:49	08:05	06:58	06:36	05:21	04:31	04:35	05:25	06:27	07:28	07:34	08:32
	15:55	16:57	17:58	20:04	21:06	21:59	22:06	21:17	20:01	18:40	16:25	15:41
7	08:48	08:03	06:55	06:33	05:19	04:30	04:36	05:27	06:29	07:30	07:36	08:34
	15:56	16:59	18:01	20:06	21:08	22:00	22:05	21:15	19:58	18:38	16:23	15:40
8	08:48	08:01	06:53	06:30	05:17	04:29	04:37	05:29	06:31	07:32	07:38	08:35
	15:58	17:01	18:03	20:08	21:10	22:01	22:04	21:13	19:56	18:35	16:21	15:40
9	08:47	07:58	06:50	06:28	05:15	04:29	04:38	05:31	06:33	07:34	07:40	08:37
	16:00	17:03	18:05	20:10	21:12	22:02	22:03	21:11	19:53	18:33	16:19	15:39
10	08:46	07:56	06:48	06:25	05:13	04:28	04:39	05:33	06:35	07:36	07:42	08:38
	16:01	17:05	18:07	20:12	21:14	22:03	22:02	21:09	19:50	18:30	16:17	15:39
11	08:45	07:54	06:45	06:22	05:11	04:27	04:41	05:35	06:37	07:38	07:44	08:39
	16:03	17:08	18:09	20:14	21:16	22:04	22:01	21:06	19:48	18:27	16:15	15:39
12	08:44	07:52	06:42	06:20	05:09	04:27	04:42	05:37	06:39	07:40	07:47	08:40
	16:05	17:10	18:11	20:16	21:18	22:05	22:00	21:04	19:45	18:25	16:13	15:38
13	08:43	07:50	06:40	06:17	05:07	04:26	04:44	05:39	06:41	07:42	07:49	08:42
	16:06	17:12	18:13	20:18	21:20	22:06	21:59	21:02	19:42	18:22	16:11	15:38
14	08:42	07:47	06:37	06:15	05:05	04:26	04:45	05:41	06:43	07:44	07:51	08:43
	16:08	17:14	18:16	20:20	21:22	22:07	21:58	20:59	19:39	18:20	16:10	15:38
15	08:41	07:45	06:34	06:12	05:03	04:26	04:46	05:43	06:45	07:46	07:53	08:44
	16:10	17:17	18:18	20:22	21:24	22:07	21:57	20:57	19:37	18:17	16:08	15:38
16	08:40	07:43	06:32	06:09	05:01	04:26	04:48	05:45	06:47	07:48	07:55	08:45
	16:12	17:19	18:20	20:24	21:26	22:08	21:55	20:54	19:34	18:15	16:06	15:38
17	08:39	07:40	06:29	06:07	04:59	04:25	04:49	05:47	06:49	07:50	07:57	08:46
	16:14	17:21	18:22	20:26	21:27	22:09	21:54	20:52	19:31	18:12	16:04	15:38
18	08:38	07:38	06:26	06:04	04:57	04:25	04:51	05:49	06:51	07:53	07:59	08:46
	16:16	17:23	18:24	20:28	21:29	22:09	21:53	20:50	19:29	18:09	16:03	15:38
19	08:36	07:36	06:24	06:02	04:55	04:25	04:53	05:51	06:53	07:55	08:01	08:47
	16:18	17:26	18:26	20:31	21:31	22:09	21:51	20:47	19:26	18:07	16:01	15:38
20	08:35	07:33	06:21	05:59	04:53	04:25	04:54	05:53	06:55	07:57	08:03	08:48
	16:20	17:28	18:28	20:33	21:33	22:10	21:50	20:45	19:23	18:04	15:59	15:39
21	08:33	07:31	06:18	05:57	04:52	04:25	04:56	05:55	06:57	07:59	08:05	08:49
	16:22	17:30	18:30	20:35	21:35	22:10	21:48	20:42	19:21	18:02	15:58	15:39
22	08:32	07:28	06:16	05:54	04:50	04:26	04:58	05:57	06:59	08:01	08:07	08:49
	16:24	17:32	18:32	20:37	21:37	22:10	21:46	20:40	19:18	18:00	15:56	15:40
23	08:30	07:26	06:13	05:52	04:48	04:26	04:59	05:59	07:01	08:03	08:09	08:50
	16:26	17:34	18:34	20:39	21:38	22:10	21:45	20:37	19:15	17:57	15:55	15:40
24	08:29	07:23	06:10	05:49	04:47	04:26	05:01	06:01	07:03	08:05	08:11	08:50
	16:28	17:37	18:36	20:41	21:40	22:10	21:43	20:35	19:12	17:55	15:53	15:41
25	08:27	07:21	06:08	05:47	04:45	04:27	05:03	06:03	07:05	07:07	08:13	08:50
	16:30	17:39	18:39	20:43	21:42	22:10	21:41	20:32	19:10	16:52	15:52	15:41
26	08:26	07:18	06:05	05:44	04:44	04:27	05:05	06:05	07:07	07:10	08:15	08:51
	16:32	17:41	18:41	20:45	21:43	22:10	21:39	20:30	19:07	16:50	15:51	15:42
27	08:24	07:16	06:02	05:42	04:42	04:27	05:06	06:07	07:09	07:12	08:17	08:51
	16:34	17:43	18:43	20:47	21:45	22:10	21:38	20:27	19:04	16:48	15:50	15:43
28	08:22	07:13	06:00	05:40	04:41	04:28	05:08	06:09	07:11	07:14	08:19	08:51
	16:37	17:45	18:45	20:49	21:47	22:10	21:36	20:24	19:02	16:45	15:48	15:44
29	08:20		06:57	05:37	04:40	04:29	05:10	06:11	07:13	07:16	08:21	08:51
	16:39		19:47	20:51	21:48	22:10	21:34	20:22	18:59	16:43	15:47	15:45
30	08:19		06:54	05:35	04:38	04:29	05:12	06:13	07:15	07:18	08:23	08:51
	16:41		19:49	20:53	21:50	22:09	21:32	20:19	18:56	16:41	15:46	15:46
31	08:17		06:52		04:37		05:14	06:15		07:20		08:51
	16:43		19:51		21:51		21:30	20:17		16:38		15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vuš karnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (219)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:47	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11	07:19 18:50	07:24 16:33	08:26 15:43
3	08:50 15:50	08:10 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:49 15:51	08:08 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:42	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:22	08:33 15:40
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			07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (72)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	06:00 (C13) 19 06:19 (C13)
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	05:58 (C13) 22 06:20 (C13)
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	05:57 (C13) 23 06:20 (C13)
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	05:57 (C13) 23 06:20 (C13)
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	05:56 (C13) 24 06:20 (C13)
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	05:56 (C13) 24 06:20 (C13)
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	05:56 (C13) 24 06:20 (C13)
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	05:57 (C13) 23 06:20 (C13)
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	05:57 (C13) 22 06:19 (C13)
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	05:57 (C13) 22 06:19 (C13)
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	05:57 (C13) 21 06:18 (C13)
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	05:58 (C13) 19 06:17 (C13)
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:00 (C13) 17 06:17 (C13)
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:01 (C13) 14 06:15 (C13)
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	06:02 (C13) 12 06:14 (C13)
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:04 (C13) 7 06:11 (C13)
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:11 (C13) 22:08
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	22:08 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10
29	08:20 16:39	07:11 17:47	06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10
30	08:18 16:41	07:09 17:49	06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09
31	08:17 16:43	07:08 17:48	06:53 19:48	05:34 20:52	04:37 21:49	04:28 22:08
Potential sun hours	235	266	366	426	508	528
Total, worst case			581			316
Sun reduction			0.41			0.57
Oper. time red.			0.94			0.94
Wind dir. red.			0.63			0.66
Total reduction			0.24			0.35
Total, real			141			112

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (72)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

July		August		September		October		November		December	
1	04:30	05:16	06:08 (C13)	06:17		07:17	07:50 (C14)	07:23	08:24		
	22:09	21:28	20	06:28 (C13)	20:14	18:54	22	08:12 (C14)	16:36	15:45	
2	04:31	05:18	06:08 (C13)	06:19		07:19	07:51 (C14)	07:25	08:26		
	22:08	21:26	20	06:28 (C13)	20:11	18:51	19	08:10 (C14)	16:34	15:44	
3	04:32	05:20	06:07 (C13)	06:21		07:21	07:54 (C14)	07:27	08:28		
	22:08	21:24	22	06:29 (C13)	20:09	18:48	12	08:06 (C14)	16:32	15:43	
4	04:33	05:22	06:07 (C13)	06:23		07:23		07:29	08:29		
	22:07	21:22	23	06:30 (C13)	20:06	18:46		16:30	15:43		
5	04:34	05:24	06:07 (C13)	06:25		07:25		07:31	08:31		
	22:07	21:20	23	06:30 (C13)	20:03	18:43		16:27	15:42		
6	04:35	05:25	06:06 (C13)	06:27		07:28		07:33	08:32		
	22:06	21:17	23	06:29 (C13)	20:01	18:40		16:25	15:41		
7	04:36	05:27	06:06 (C13)	06:29		07:30		07:36	08:34		
	22:05	21:15	24	06:30 (C13)	19:58	18:38		16:23	15:40		
8	04:37	05:29	06:06 (C13)	06:31		07:32		07:38	08:35		
	22:04	21:13	24	06:30 (C13)	19:56	18:35		16:21	15:40		
9	04:38	05:31	06:06 (C13)	06:33		07:34		07:40	08:37		
	22:03	21:11	24	06:30 (C13)	19:53	18:33		16:19	15:39		
10	04:40	05:33	06:06 (C13)	06:35		07:36		07:42	08:38		
	22:02	21:08	23	06:29 (C13)	19:50	18:30		16:17	15:39		
11	04:41	05:35	06:08 (C13)	06:37		07:38		07:44	08:39		
	22:01	21:06	21	06:29 (C13)	19:47	18:27		16:15	15:39		
12	04:42	05:37	06:09 (C13)	06:39		08:03 (C14)		07:40	08:40		
	22:00	21:04	18	06:27 (C13)	19:45	8	08:11 (C14)	18:25	16:13	15:38	
13	04:44	05:39	06:11 (C13)	06:41		07:59 (C14)		07:42	08:42		
	21:59	21:02	15	06:26 (C13)	19:42	16	08:15 (C14)	18:22	16:11	15:38	
14	04:45	05:41	06:13 (C13)	06:43		07:56 (C14)		07:44	08:43		
	21:58	20:59	12	06:25 (C13)	19:39	21	08:17 (C14)	18:20	16:10	15:38	
15	04:46	05:43	06:15 (C13)	06:45		07:54 (C14)		07:46	08:44		
	21:57	20:57	9	06:24 (C13)	19:37	25	08:19 (C14)	18:17	16:08	15:38	
16	04:48	05:45	06:17 (C13)	06:47		07:53 (C14)		07:48	08:45		
	21:55	20:54	5	06:22 (C13)	19:34	27	08:20 (C14)	18:15	16:06	15:38	
17	04:49	05:47		06:49		07:51 (C14)		07:50	08:46		
	21:54	20:52		19:31	29	08:20 (C14)		18:12	16:04	15:38	
18	04:51	05:49		06:51		07:50 (C14)		07:52	08:46		
	21:52	20:50		19:29	31	08:21 (C14)		18:09	16:03	15:38	
19	04:53	05:51		06:53		07:49 (C14)		07:55	08:01	08:47	
	21:51	20:47		19:26	32	08:21 (C14)		18:07	16:01	15:38	
20	04:54	05:53		06:55		07:48 (C14)		07:57	08:03	08:48	
	21:49	20:45		19:23	34	08:22 (C14)		18:04	15:59	15:39	
21	04:56	05:55		06:57		07:48 (C14)		07:59	08:05	08:48	
	21:48	20:42		19:21	34	08:22 (C14)		18:02	15:58	15:39	
22	04:58	05:57		06:59		07:47 (C14)		08:01	08:07	08:49	
	21:46	20:40		19:18	34	08:21 (C14)		18:00	15:56	15:40	
23	04:59	05:59		07:01		07:47 (C14)		08:03	08:09	08:50	
	21:45	20:37		19:15	34	08:21 (C14)		17:57	15:55	15:40	
24	05:01	06:01		07:03		07:47 (C14)		08:05	08:11	08:50	
	21:43	20:35		19:12	34	08:21 (C14)		17:55	15:53	15:41	
25	05:03	06:03		07:05		07:47 (C14)		07:07	08:13	08:50	
	21:41	20:32		19:10	33	08:20 (C14)		16:52	15:52	15:41	
26	05:05	06:05		07:07		07:47 (C14)		07:10	08:15	08:51	
	21:39	20:30		19:07	32	08:19 (C14)		16:50	15:51	15:42	
27	05:06	06:18 (C13)	06:07	07:09		07:47 (C14)		07:12	08:17	08:51	
	21:38	1	06:19 (C13)	20:27	31	08:18 (C14)		16:48	15:50	15:43	
28	05:08	06:14 (C13)	06:09	07:11		07:47 (C14)		07:14	08:19	08:51	
	21:36	9	06:23 (C13)	20:24	30	08:17 (C14)		16:45	15:48	15:44	
29	05:10	06:11 (C13)	06:11	07:13		07:48 (C14)		07:16	08:21	08:51	
	21:34	13	06:24 (C13)	20:22	28	08:16 (C14)		16:43	15:47	15:45	
30	05:12	06:10 (C13)	06:13	07:15		07:49 (C14)		07:18	08:22	08:51	
	21:32	16	06:26 (C13)	20:19	25	08:14 (C14)		16:41	15:46	15:46	
31	05:14	06:10 (C13)	06:15					07:20		08:51	
	21:30	17	06:27 (C13)	20:17		16:38				15:47	
Potential sun hours	529		469		385		324		247		216
Total, worst case	56		306		538		53				
Sun reduction	0.49		0.50		0.43		0.26				
Oper. time red.	0.94		0.94		0.94		0.94				
Wind dir. red.	0.66		0.66		0.63		0.63				
Total reduction	0.31		0.31		0.25		0.15				
Total, real	17		95		135		8				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Valodzite - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (141)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Varkali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (123)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:08 17:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 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	07:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Veji - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (130)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	26	07:48 (C14) 08:14 (C14)	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50		06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11		07:19 18:51	25	07:48 (C14) 08:13 (C14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52		06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09		07:21 18:48	21	07:50 (C14) 08:11 (C14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54		06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06		07:23 18:46	18	07:52 (C14) 08:10 (C14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56		06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04		07:25 18:43	14	07:54 (C14) 08:08 (C14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58		06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01		07:28 18:40	9	07:56 (C14) 08:05 (C14)	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	5	07:21 (C14) 07:26 (C14)	06:33 20:06	05:19 21:08	04:30 22:00	05:27 21:15	06:29 19:58		07:30 18:38			07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	11	07:18 (C14) 07:29 (C14)	06:30 20:08	05:17 21:10	04:29 22:01	05:29 21:13	06:31 19:56		07:32 18:35			07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	16	07:16 (C14) 07:32 (C14)	06:28 20:10	05:15 21:12	04:29 22:02	05:31 21:11	06:33 19:53		07:34 18:33			07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	20	07:13 (C14) 07:33 (C14)	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	23	07:10 (C14) 07:33 (C14)	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	25	07:09 (C14) 07:34 (C14)	06:20 20:16	05:09 21:18	04:27 22:05	05:37 21:04	06:39 19:45		07:40 18:25			07:46 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	26	07:08 (C14) 07:34 (C14)	06:17 20:18	05:07 21:20	04:27 22:06	05:39 21:02	06:41 19:42		07:42 18:22			07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	27	07:07 (C14) 07:34 (C14)	06:15 20:20	05:05 21:22	04:26 22:07	05:41 20:59	06:43 19:39		07:44 18:20			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	27	07:08 (C14) 07:35 (C14)	06:12 20:22	05:03 21:24	04:26 22:07	05:43 20:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	27	07:07 (C14) 07:34 (C14)	06:09 20:24	05:01 21:26	04:26 22:08	05:45 20:54	06:47 19:34		07:48 18:15			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	26	07:07 (C14) 07:33 (C14)	06:07 20:26	04:59 21:27	04:25 22:08	05:49 20:52	06:49 19:31		07:50 18:12			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	25	07:07 (C14) 07:32 (C14)	06:04 20:28	04:57 21:29	04:25 22:09	05:49 20:50	06:51 19:29		07:53 18:09			07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	24	07:08 (C14) 07:32 (C14)	06:02 20:31	04:55 21:31	04:25 22:09	05:51 20:47	06:53 19:26		07:55 18:07			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	23	07:08 (C14) 07:31 (C14)	05:59 20:33	04:54 21:33	04:25 22:10	05:53 20:45	06:55 19:23	10	08:00 (C14) 08:10 (C14)			07:57 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	20	07:09 (C14) 07:29 (C14)	05:57 20:35	04:52 21:35	04:25 22:10	05:55 20:42	06:57 19:21	15	08:00 (C14) 08:12 (C14)			07:59 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	16	07:11 (C14) 07:27 (C14)	05:54 20:37	04:50 21:37	04:26 22:10	05:57 20:40	06:59 19:18	19	08:00 (C14) 08:14 (C14)			08:01 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	12	07:12 (C14) 07:24 (C14)	05:52 20:39	04:48 21:38	04:26 22:10	05:59 20:37	07:01 19:15	22	08:00 (C14) 08:15 (C14)			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	24	08:00 (C14) 08:16 (C14)			08:05 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39		05:47 20:43	04:45 21:42	04:27 22:10	06:03 21:41	07:05 20:32	07:05 19:10	25	08:00 (C14) 08:16 (C14)			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	06:05 21:39	07:07 20:30	07:07 19:07	26	08:00 (C14) 08:16 (C14)			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	06:06 21:38	07:09 20:27	07:09 19:04	27	08:00 (C14) 08:16 (C14)			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	06:08 21:36	07:09 20:24	07:11 19:02	27	08:00 (C14) 08:16 (C14)			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	06:11 21:34	07:13 20:22	07:13 18:59	27	08:00 (C14) 08:15 (C14)			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	06:12 21:32	07:15 20:19	07:15 18:56	27	08:00 (C14) 08:15 (C14)			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 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324		247	216	
Total, worst case				353						249		113				
Sun reduction				0.41						0.43		0.26				
Oper. time red.				0.94						0.94		0.94				
Wind dir. red.				0.62						0.62		0.62				
Total reduction				0.24						0.25		0.15				
Total, real				85						62		17				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vejini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (91)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	23	07:46 (C14) 08:09 (C14)	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50		06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11		07:19 18:51	20	07:48 (C14) 08:08 (C14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52		06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09		07:21 18:48	16	07:50 (C14) 08:06 (C14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54		06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06		07:23 18:46	12	07:52 (C14) 08:04 (C14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56		06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04		07:25 18:43	7	07:54 (C14) 08:01 (C14)	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58		06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01		07:28 18:40			07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01		06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58		07:30 18:38			07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03		06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56		07:32 18:35			07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	3	07:16 (C14) 20:08	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	10	07:13 (C14) 20:10	05:13 21:12	04:28 22:02	04:40 22:03	05:33 21:11	06:35 19:53		07:36 18:33			07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	15	07:10 (C14) 20:12	05:11 21:14	04:27 22:03	04:41 22:02	05:35 21:08	06:37 19:50		07:38 18:30			07:44 16:15	08:39 15:39
12	08:44 16:03	07:52 17:08	06:42 18:09	19	07:08 (C14) 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 16:13	08:40 15:38
13	08:43 16:06	07:50 17:12	06:40 18:11	22	07:06 (C14) 20:16	05:07 21:18	04:27 22:05	04:44 22:00	05:39 21:04	06:41 19:45		07:42 18:25			07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	24	07:05 (C14) 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39		07:44 18:20			07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	25	07:04 (C14) 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	26	07:03 (C14) 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34		07:48 18:15			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	27	07:03 (C14) 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31		07:50 18:12			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	27	07:03 (C14) 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29		07:53 18:09			07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	26	07:04 (C14) 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26		07:55 18:07	10	07:57 (C14) 08:07 (C14)	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	25	07:04 (C14) 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	15	07:54 (C14) 08:09 (C14)	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	24	07:04 (C14) 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	19	07:52 (C14) 08:11 (C14)	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	23	07:06 (C14) 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	22	07:58 (C14) 08:13 (C14)	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	20	07:07 (C14) 20:39	04:52 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15		08:03 17:57	24	07:50 (C14) 08:13 (C14)	08:03 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	16	07:09 (C14) 20:41	04:49 21:40	04:26 22:10	04:59 21:43	06:01 20:35	07:03 19:12		08:05 17:55	25	07:49 (C14) 08:13 (C14)	08:05 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	11	07:20 (C14) 20:43	04:47 21:42	04:27 22:10	05:01 21:41	06:01 20:32	07:03 19:10		08:07 16:52	26	07:48 (C14) 08:13 (C14)	08:05 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		05:47 20:45	04:45 21:43	04:27 22:10	05:03 21:39	06:03 20:30	07:05 19:07		08:09 16:50	27	07:47 (C14) 08:13 (C14)	08:05 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		08:11 16:48	27	07:46 (C14) 08:13 (C14)	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45		05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02		08:14 16:45	26	07:46 (C14) 08:12 (C14)	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47		05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59		08:16 16:43	25	07:46 (C14) 08:11 (C14)	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49		05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56		08:17 16:41	25	07:46 (C14) 08:11 (C14)	08:22 15:46	08:51 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		08:18 16:38			08:23 15:47	08:51 15:47
Potential sun hours	235	266	366		426	508	528	529	469	385		324			247	216
Total, worst case				343						271			78			
Sun reduction				0.41						0.43			0.26			
Oper. time red.				0.94						0.94			0.94			
Wind dir. red.				0.63						0.63			0.63			
Total reduction				0.24						0.25			0.15			
Total, real				83						68			12			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February			March			April			May			June		
1	08:51	09:33 (C14)	08:15	09:39 (C14)	07:11		06:49		07:53 (C13)	05:33	04:36							
	15:48	14	09:47 (C14)	16:45	22	10:01 (C14)	17:48		19:53	19	08:12 (C13)	20:55						
2	08:50	09:34 (C14)	08:13	09:40 (C14)	07:08		06:46		07:54 (C13)	05:30	04:35							
	15:49	14	09:48 (C14)	16:48	20	10:00 (C14)	17:50		19:55	15	08:09 (C13)	20:58						
3	08:50	09:33 (C14)	08:11	09:42 (C14)	07:06		06:43		07:59 (C13)	05:28	04:34							
	15:51	16	09:49 (C14)	16:50	17	09:59 (C14)	17:52		19:57	5	08:04 (C13)	21:00						
4	08:50	09:32 (C14)	08:09	09:45 (C14)	07:03		06:41				05:26	04:33						
	15:52	18	09:50 (C14)	16:52	11	09:56 (C14)	17:54		19:59		21:02	21:57						
5	08:49	09:33 (C14)	08:07				07:01		06:38		05:23	04:32						
	15:53	19	09:52 (C14)	16:54			17:56		20:01		21:04	21:58						
6	08:49	09:32 (C14)	08:05				06:58		06:36		05:21	04:31						
	15:55	21	09:53 (C14)	16:56			17:58		20:03		21:06	21:59						
7	08:48	09:32 (C14)	08:03				06:55		06:33		05:19	04:30						
	15:56	21	09:53 (C14)	16:59			18:01		20:06		21:08	22:00						
8	08:48	09:32 (C14)	08:01				06:53		06:30		05:17	04:29						
	15:58	22	09:54 (C14)	17:01			18:03		20:08		21:10	22:01						
9	08:47	09:32 (C14)	07:58				06:50		06:28		05:15	04:29						
	16:00	23	09:55 (C14)	17:03			18:05		20:10		21:12	22:02						
10	08:46	09:32 (C14)	07:56				06:47		06:25		05:13	04:28						
	16:01	24	09:56 (C14)	17:05			18:07		20:12		21:14	22:03						
11	08:45	09:32 (C14)	07:54				06:45		06:22		05:11	04:27						
	16:03	25	09:57 (C14)	17:08			18:09		20:14		21:16	22:04						
12	08:44	09:32 (C14)	07:52				06:42		06:20		05:09	04:27						
	16:05	26	09:58 (C14)	17:10			18:11		20:16		21:18	22:05						
13	08:43	09:31 (C14)	07:50				06:40		06:17		05:07	04:26						
	16:06	28	09:59 (C14)	17:12			18:13		20:18		21:20	22:06						
14	08:42	09:31 (C14)	07:47				06:37		06:15		05:05	04:26						
	16:08	29	10:00 (C14)	17:14			18:15		20:20		21:22	22:07						
15	08:41	09:32 (C14)	07:45				06:34	07:04 (C13)	06:12		05:03	04:26						
	16:10	29	10:01 (C14)	17:17			18:18	8 07:12 (C13)	20:22		21:24	22:07						
16	08:40	09:31 (C14)	07:43				06:32	07:00 (C13)	06:09		05:01	04:26						
	16:12	30	10:01 (C14)	17:19			18:20	15 07:15 (C13)	20:24		21:26	22:08						
17	08:39	09:32 (C14)	07:40				06:29	06:57 (C13)	06:07		04:59	04:25						
	16:14	30	10:02 (C14)	17:21			18:22	20 07:17 (C13)	20:26		21:27	22:08						
18	08:38	09:32 (C14)	07:38				06:26	06:55 (C13)	06:04		04:57	04:25						
	16:16	30	10:02 (C14)	17:23			18:24	23 07:18 (C13)	20:28		21:29	22:09						
19	08:36	09:31 (C14)	07:36				06:24	06:54 (C13)	06:02		04:55	04:25						
	16:18	31	10:02 (C14)	17:26			18:26	25 07:19 (C13)	20:31		21:31	22:09						
20	08:35	09:32 (C14)	07:33				06:21	06:52 (C13)	05:59		04:53	04:25						
	16:20	31	10:03 (C14)	17:28			18:28	28 07:20 (C13)	20:33		21:33	22:10						
21	08:33	09:32 (C14)	07:31				06:18	06:51 (C13)	05:57		04:52	04:25						
	16:22	32	10:04 (C14)	17:30			18:30	29 07:20 (C13)	20:35		21:35	22:10						
22	08:32	09:32 (C14)	07:28				06:16	06:51 (C13)	05:54		04:50	04:26						
	16:24	32	10:04 (C14)	17:32			18:32	30 07:21 (C13)	20:37		21:37	22:10						
23	08:30	09:32 (C14)	07:26				06:13	06:50 (C13)	05:52		04:48	04:26						
	16:26	32	10:04 (C14)	17:34			18:34	30 07:20 (C13)	20:39		21:38	22:10						
24	08:29	09:33 (C14)	07:23				06:10	06:49 (C13)	05:49		04:47	04:26						
	16:28	32	10:05 (C14)	17:37			18:36	31 07:20 (C13)	20:41		21:40	22:10						
25	08:27	09:34 (C14)	07:21				06:08	06:50 (C13)	05:47		04:45	04:26						
	16:30	31	10:05 (C14)	17:39			18:38	30 07:20 (C13)	20:43		21:42	22:10						
26	08:26	09:34 (C14)	07:18				06:05	06:49 (C13)	05:44		04:44	04:27						
	16:32	31	10:05 (C14)	17:41			18:41	30 07:19 (C13)	20:45		21:43	22:10						
27	08:24	09:35 (C14)	07:16				06:02	06:49 (C13)	05:42		04:42	04:27						
	16:34	29	10:04 (C14)	17:43			18:43	29 07:18 (C13)	20:47		21:45	22:10						
28	08:22	09:35 (C14)	07:13				05:59	06:50 (C13)	05:40		04:41	04:28						
	16:37	29	10:04 (C14)	17:45			18:45	28 07:18 (C13)	20:49		21:47	22:10						
29	08:20	09:36 (C14)					06:57	07:50 (C13)	05:37		04:40	04:29						
	16:39	28	10:04 (C14)				19:47	27 08:17 (C13)	20:51		21:48	22:10						
30	08:19	09:37 (C14)					06:54	07:50 (C13)	05:35		04:38	04:29						
	16:41	26	10:03 (C14)				19:49	25 08:15 (C13)	20:53		21:50	22:09						
31	08:17	09:38 (C14)					06:51	07:52 (C13)			04:37							
	16:43	25	10:03 (C14)				19:51	22 08:14 (C13)			21:51							
Potential sun hours	235		266				366		426		508	529						
Total, worst case	808		70				430		39									
Sun reduction	0.13		0.20				0.41		0.50									
Oper. time red.	0.94		0.94				0.94		0.94									
Wind dir. red.	0.61		0.61				0.64		0.64									
Total reduction	0.07		0.11				0.24		0.30									
Total, real	60		8				105		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:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	07:23	08:24
	22:09	21:28	20:14	18:54	16:36	15:45
2	04:31	05:18	06:19	07:19	07:25	08:26
	22:09	21:26	20:11	18:51	16:34	15:44
3	04:32	05:20	06:21	07:21	07:27	08:28
	22:08	21:24	20:09	18:48	16:32	15:43
4	04:33	05:21	06:23	07:23	07:29	08:29
	22:07	21:22	20:06	18:46	16:29	15:42
5	04:34	05:23	06:25	07:25	07:31	08:31
	22:07	21:20	20:03	18:43	16:27	15:42
6	04:35	05:25	06:27	07:28	07:33	08:32
	22:06	21:17	20:01	18:40	16:25	15:41
7	04:36	05:27	06:29	07:30	07:36	08:34
	22:05	21:15	19:58	18:38	16:23	15:40
8	04:37	05:29	06:31	07:32	07:38	08:35
	22:04	21:13	19:56	18:35	16:21	15:40
9	04:38	05:31	06:33	07:34	07:40	08:37
	22:03	21:11	19:53	18:33	16:19	15:39
10	04:39	05:33	06:35	07:36	07:42	08:38
	22:02	21:08	19:50	18:30	16:17	15:39
11	04:41	05:35	06:37	07:38	07:44	08:39
	22:01	21:06	19:47	18:27	16:15	15:39
12	04:42	05:37	06:39	07:40	07:46	08:40
	22:00	21:04	19:45	18:25	16:13	15:38
13	04:43	05:39	06:41	07:42	07:49	08:42
	21:59	21:02	19:42	18:22	16:11	15:38
14	04:45	05:41	06:43	07:44	07:51	08:43
	21:58	20:59	19:39	18:20	16:09	15:38
15	04:46	05:43	06:45	07:46	07:53	08:44
	21:57	20:57	19:37	18:17	16:08	15:38
16	04:48	05:45	06:47	07:48	07:55	08:45
	21:55	20:54	19:34	18:14	16:06	15:38
17	04:49	05:47	06:49	07:49	07:57	08:46
	21:54	20:52	19:31	18:12	16:04	15:38
18	04:51	05:49	06:51	07:52	07:59	08:46
	21:52	20:50	19:29	18:09	16:02	15:38
19	04:53	05:51	06:53	07:55	08:01	08:47
	21:51	20:47	19:26	18:07	16:01	15:38
20	04:54	05:53	06:55	07:57	08:03	08:48
	21:49	20:45	19:23	18:04	15:59	15:39
21	04:56	05:55	06:57	07:59	08:05	08:49
	21:48	20:42	19:21	18:02	15:58	15:39
22	04:58	05:57	06:59	08:01	08:07	08:49
	21:46	20:40	19:18	18:00	15:56	15:40
23	04:59	05:59	07:01	08:03	08:09	08:50
	21:45	20:37	19:15	17:57	15:55	15:40
24	05:01	06:01	07:03	08:05	08:11	08:50
	21:43	20:35	19:12	17:55	15:53	15:41
25	05:03	06:03	07:05	08:07	08:13	08:50
	21:41	20:32	19:10	17:52	15:52	15:41
26	05:05	06:05	07:07	08:09	08:15	08:51
	21:39	20:30	19:07	17:50	15:51	15:42
27	05:06	06:07	07:09	08:11	08:17	08:51
	21:38	20:27	19:04	17:58	15:49	15:43
28	05:08	06:09	07:11	08:13	08:19	08:51
	21:36	20:24	19:02	17:54	15:48	15:44
29	05:10	06:11	07:13	08:15	08:21	08:51
	21:34	20:22	18:59	17:52	15:47	15:45
30	05:12	06:13	07:15	08:17	08:22	08:51
	21:32	20:19	18:56	17:50	15:46	15:46
31	05:14	06:15		08:19		08:51
	21:30	20:17		17:48		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case			470		662	302
Sun reduction			0.43		0.08	0.07
Oper. time red.			0.94		0.94	0.94
Wind dir. red.			0.64		0.61	0.61
Total reduction			0.25		0.05	0.04
Total, real			119		31	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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vetras - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (161)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:02	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	04:57 21:43	05:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (120)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 21:00	04:34 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00
8	08:47 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	04:26 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	04:45 21:42	04:27 22:10
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09
31	08:17 16:43		06:51 19:51		04:37 21:51	04:29 22:09
Potential sun hours	235	266	366	426	508	528
Total, worst case				287		939
Sun reduction				0.50		0.56
Oper. time red.				0.94		0.94
Wind dir. red.				0.66		0.67
Total reduction				0.31		0.35
Total, real				89	328	330

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (120)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	06:01 (C14)	05:16	06:04 (C14)	06:17	06:56 (C15)
	22:09	32	06:33 (C14)	21:28	33	06:37 (C14)
2	04:31	06:00 (C14)	05:18	06:04 (C14)	06:19	07:19 (C15)
	22:08	32	06:32 (C14)	21:26	31	06:35 (C14)
3	04:32	06:01 (C14)	05:20	06:05 (C14)	06:21	06:55 (C15)
	22:08	32	06:33 (C14)	21:24	29	06:34 (C14)
4	04:33	06:01 (C14)	05:22	06:06 (C14)	06:23	06:56 (C15)
	22:07	32	06:33 (C14)	21:22	27	06:33 (C14)
5	04:34	06:01 (C14)	05:24	06:08 (C14)	06:25	06:56 (C15)
	22:07	33	06:34 (C14)	21:19	24	06:32 (C14)
6	04:35	06:01 (C14)	05:25	06:08 (C14)	06:27	06:57 (C15)
	22:06	33	06:34 (C14)	21:17	22	06:30 (C14)
7	04:36	06:01 (C14)	05:27	06:10 (C14)	06:29	06:58 (C15)
	22:05	34	06:35 (C14)	21:15	18	06:28 (C14)
8	04:37	06:00 (C14)	05:29	06:13 (C14)	06:31	07:00 (C15)
	22:04	35	06:35 (C14)	21:13	12	06:25 (C14)
9	04:38	06:00 (C14)	05:31	06:33	07:02 (C15)	07:34
	22:03	35	06:35 (C14)	21:11	6	07:08 (C15)
10	04:40	06:00 (C14)	05:33	06:35	18:33	16:19
	22:02	36	06:36 (C14)	21:08	07:36	07:42
11	04:41	06:01 (C14)	05:35	06:37	18:30	16:17
	22:01	36	06:37 (C14)	21:06	07:38	07:44
12	04:42	06:00 (C14)	05:37	06:39	18:27	16:15
	22:00	37	06:37 (C14)	21:04	07:40	07:46
13	04:44	06:00 (C14)	05:39	06:41	18:25	16:13
	21:59	37	06:37 (C14)	21:02	07:42	07:49
14	04:45	06:00 (C14)	05:41	06:43	18:22	16:11
	21:58	37	06:37 (C14)	20:59	07:44	07:51
15	04:46	06:00 (C14)	05:43	06:45	18:20	16:10
	21:57	38	06:38 (C14)	20:57	07:46	07:53
16	04:48	06:00 (C14)	05:45	06:47	18:17	16:08
	21:55	38	06:38 (C14)	20:54	07:48	07:55
17	04:49	06:00 (C14)	05:47	06:49	18:15	16:06
	21:54	38	06:38 (C14)	20:52	18:12	16:04
18	04:51	06:00 (C14)	05:49	06:51	18:09	16:03
	21:52	39	06:39 (C14)	20:50	18:09	16:03
19	04:53	06:00 (C14)	05:51	06:53	18:09	16:03
	21:51	38	06:38 (C14)	20:47	18:07	16:01
20	04:54	06:00 (C14)	05:53	06:55	18:07	16:01
	21:49	39	06:39 (C14)	20:45	18:04	15:59
21	04:56	06:00 (C14)	05:55	06:57	18:04	15:59
	21:48	39	06:39 (C14)	20:42	18:02	15:58
22	04:58	06:00 (C14)	05:57	06:59	18:01	15:57
	21:46	39	06:39 (C14)	20:40	18:00	15:56
23	04:59	06:00 (C14)	05:59	07:01	18:00	15:56
	21:45	39	06:39 (C14)	20:37	18:03	15:59
24	05:01	06:01 (C14)	06:01	07:03	17:57	15:55
	21:43	38	06:39 (C14)	20:35	17:57	15:53
25	05:03	06:01 (C14)	06:03	07:05 (C15)	17:55	15:53
	21:41	38	06:39 (C14)	20:32	17:55	15:53
26	05:05	06:01 (C14)	06:05	07:03 (C15)	17:52	15:52
	21:39	37	06:38 (C14)	20:30	17:10	15:10
27	05:06	06:01 (C14)	06:07	07:01 (C15)	17:10	15:10
	21:37	38	06:39 (C14)	20:27	17:12	15:12
28	05:08	06:02 (C14)	06:09	06:59 (C15)	17:12	15:12
	21:36	37	06:39 (C14)	20:24	17:14	15:14
29	05:10	06:02 (C14)	06:11	06:58 (C15)	17:14	15:14
	21:34	35	06:37 (C14)	20:22	17:16	15:16
30	05:12	06:02 (C14)	06:13	06:57 (C15)	17:18	15:18
	21:32	35	06:37 (C14)	20:19	17:18	15:18
31	05:14	06:03 (C14)	06:15	06:56 (C15)	17:20	15:20
	21:30	34	06:37 (C14)	20:17	17:20	15:20
Potential sun hours	529		469	385	324	248
Total, worst case	1120		321	164		
Sun reduction	0.49		0.50	0.43		
Oper. time red.	0.94		0.94	0.94		
Wind dir. red.	0.67		0.66	0.66		
Total reduction	0.31		0.31	0.26		
Total, real	347		100	43		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51	08:15	07:11	06:49	07:22 (C15)	05:33
	15:48	16:45	17:48	19:53	24	07:46 (C15)
2	08:50	08:13	07:08	06:46	07:21 (C15)	05:30
	15:50	16:48	17:50	19:55	24	07:45 (C15)
3	08:50	08:11	07:06	06:43	07:22 (C15)	05:28
	15:51	16:50	17:52	19:57	23	07:45 (C15)
4	08:50	08:09	07:03	06:41	07:22 (C15)	05:26
	15:52	16:52	17:54	19:59	22	07:44 (C15)
5	08:49	08:07	07:01	06:38	07:22 (C15)	05:24
	15:54	16:54	17:56	20:01	20	07:42 (C15)
6	08:49	08:05	06:58	06:36	07:23 (C15)	05:21
	15:55	16:57	17:58	20:03	19	07:42 (C15)
7	08:48	08:03	06:55	06:33	07:24 (C15)	05:19
	15:56	16:59	18:01	20:06	15	07:39 (C15)
8	08:47	08:01	06:53	06:30	07:26 (C15)	05:17
	15:58	17:01	18:03	20:08	12	07:38 (C15)
9	08:47	07:58	06:50	06:28		05:15
	16:00	17:03	18:05	20:10		21:12
10	08:46	07:56	06:47	06:25		05:13
	16:01	17:05	18:07	20:12		21:14
11	08:45	07:54	06:45	06:22		05:11
	16:03	17:08	18:09	20:14		21:16
12	08:44	07:52	06:42	06:20		05:09
	16:05	17:10	18:11	20:16		21:18
13	08:43	07:50	06:40	06:17		05:07
	16:06	17:12	18:13	20:18		21:20
14	08:42	07:47	06:37	06:15		05:05
	16:08	17:14	18:15	20:20		21:22
15	08:41	07:45	06:34	06:12		05:03
	16:10	17:17	18:18	20:22		21:24
16	08:40	07:43	06:32	06:09		05:01
	16:12	17:19	18:20	20:24		21:25
17	08:39	07:40	06:29	06:07		04:59
	16:14	17:21	18:22	20:26		21:27
18	08:37	07:38	06:26	06:04		04:57
	16:16	17:23	18:24	20:28		21:29
19	08:36	07:36	06:24	06:02	06:42 (C14)	04:55
	16:18	17:26	18:26	20:30	11	06:53 (C14)
20	08:35	07:33	06:21	05:59	06:39 (C14)	04:54
	16:20	17:28	18:28	20:33	18	06:57 (C14)
21	08:33	07:31	06:18	05:57	06:36 (C14)	04:52
	16:22	17:30	18:30	20:35	23	06:59 (C14)
22	08:32	07:28	06:16	05:54	06:34 (C14)	04:50
	16:24	17:32	18:32	20:37	27	07:01 (C14)
23	08:30	07:26	06:13	05:52	06:32 (C14)	04:48
	16:26	17:34	18:34	20:39	29	07:01 (C14)
24	08:29	07:23	06:10	05:49	06:30 (C14)	04:47
	16:28	17:37	18:36	20:41	33	07:03 (C14)
25	08:27	07:21	06:08	05:47	06:30 (C14)	04:45
	16:30	17:39	18:38	20:43	34	07:04 (C14)
26	08:26	07:18	06:05	05:44	06:28 (C14)	04:44
	16:32	17:41	18:41	20:45	36	07:04 (C14)
27	08:24	07:16	06:02	05:42	06:27 (C14)	04:42
	16:34	17:43	18:43	20:47	38	07:05 (C14)
28	08:22	07:13	06:00	05:40	06:27 (C14)	04:41
	16:37	17:45	18:45	20:49	38	07:05 (C14)
29	08:20		06:57	05:37	06:26 (C14)	04:40
	16:39		19:47	20:51	40	07:06 (C14)
30	08:18		06:54	05:35	06:26 (C14)	04:38
	16:41		19:49	20:53	40	07:06 (C14)
31	08:17		06:51	05:33		04:37
	16:43		19:51	20:55		21:51
Potential sun hours	235	266	366	426		508
Total, worst case			127	526		794
Sun reduction			0.41	0.50		0.57
Oper. time red.			0.94	0.94		0.94
Wind dir. red.			0.65	0.65		0.65
Total reduction			0.25	0.31		0.35
Total, real			32	162		277

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Veveri 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (92)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July			August			September			October	November	December
1	04:30		05:08 (C13)	05:16		06:35 (C14)	06:17			07:17	07:23	08:24
	22:09	18	05:26 (C13)	21:28	38	07:13 (C14)	20:14			18:54	16:36	15:45
2	04:31		05:08 (C13)	05:18		06:35 (C14)	06:19			07:19	07:25	08:26
	22:08	17	05:25 (C13)	21:26	39	07:14 (C14)	20:11			18:51	16:34	15:44
3	04:32		05:09 (C13)	05:20		06:35 (C14)	06:21			07:21	07:27	08:28
	22:08	16	05:25 (C13)	21:24	39	07:14 (C14)	20:09			18:48	16:32	15:43
4	04:33		05:10 (C13)	05:22		06:35 (C14)	06:23		07:23 (C15)	07:23	07:29	08:29
	22:07	15	05:25 (C13)	21:22	40	07:15 (C14)	20:06	12	07:35 (C15)	18:46	16:30	15:43
5	04:34		05:11 (C13)	05:24		06:35 (C14)	06:25		07:21 (C15)	07:25	07:31	08:31
	22:07	14	05:25 (C13)	21:19	40	07:15 (C14)	20:03	15	07:36 (C15)	18:43	16:27	15:42
6	04:35		05:12 (C13)	05:25		06:34 (C14)	06:27		07:19 (C15)	07:28	07:33	08:32
	22:06	13	05:25 (C13)	21:17	41	07:15 (C14)	20:01	19	07:38 (C15)	18:40	16:25	15:41
7	04:36		05:13 (C13)	05:27		06:34 (C14)	06:29		07:17 (C15)	07:30	07:36	08:34
	22:05	12	05:25 (C13)	21:15	41	07:15 (C14)	19:58	21	07:38 (C15)	18:38	16:23	15:40
8	04:37		05:14 (C13)	05:29		06:34 (C14)	06:31		07:16 (C15)	07:32	07:38	08:35
	22:04	10	05:24 (C13)	21:13	41	07:15 (C14)	19:55	22	07:38 (C15)	18:35	16:21	15:40
9	04:38		05:15 (C13)	05:31		06:34 (C14)	06:33		07:15 (C15)	07:34	07:40	08:37
	22:03	8	05:23 (C13)	21:11	41	07:15 (C14)	19:53	23	07:38 (C15)	18:33	16:19	15:39
10	04:40		05:16 (C13)	05:33		06:34 (C14)	06:35		07:15 (C15)	07:36	07:42	08:38
	22:02	6	05:22 (C13)	21:08	41	07:15 (C14)	19:50	23	07:38 (C15)	18:30	16:17	15:39
11	04:41		05:18 (C13)	05:35		06:34 (C14)	06:37		07:14 (C15)	07:38	07:44	08:39
	22:01	4	05:22 (C13)	21:06	41	07:15 (C14)	19:47	24	07:38 (C15)	18:27	16:15	15:39
12	04:42		05:19 (C13)	05:37		06:33 (C14)	06:39		07:14 (C15)	07:40	07:46	08:40
	22:00	1	05:20 (C13)	21:04	41	07:14 (C14)	19:45	24	07:38 (C15)	18:25	16:13	15:38
13	04:44			05:39		06:34 (C14)	06:41		07:14 (C15)	07:42	07:49	08:42
	21:59			21:02	40	07:14 (C14)	19:42	23	07:37 (C15)	18:22	16:11	15:38
14	04:45			05:41		06:34 (C14)	06:43		07:14 (C15)	07:44	07:51	08:43
	21:58			20:59	39	07:13 (C14)	19:39	22	07:36 (C15)	18:20	16:10	15:38
15	04:46			05:43		06:34 (C14)	06:45		07:15 (C15)	07:46	07:53	08:44
	21:57			20:57	39	07:13 (C14)	19:37	20	07:35 (C15)	18:17	16:08	15:38
16	04:48			05:45		06:35 (C14)	06:47		07:16 (C15)	07:48	07:55	08:45
	21:55			20:54	37	07:12 (C14)	19:34	18	07:34 (C15)	18:15	16:06	15:38
17	04:49			05:47		06:36 (C14)	06:49		07:18 (C15)	07:50	07:57	08:45
	21:54			20:52	35	07:11 (C14)	19:31	14	07:32 (C15)	18:12	16:04	15:38
18	04:51			05:49		06:36 (C14)	06:51		07:20 (C15)	07:52	07:59	08:46
	21:52			20:50	34	07:10 (C14)	19:29	9	07:29 (C15)	18:09	16:03	15:38
19	04:53		06:51 (C14)	05:51		06:36 (C14)	06:53			07:55	08:01	08:47
	21:51	5	06:56 (C14)	20:47	32	07:08 (C14)	19:26			18:07	16:01	15:38
20	04:54		06:48 (C14)	05:53		06:37 (C14)	06:55			07:57	08:03	08:48
	21:49	12	07:00 (C14)	20:45	30	07:07 (C14)	19:23			18:04	15:59	15:39
21	04:56		06:46 (C14)	05:55		06:39 (C14)	06:57			07:59	08:05	08:48
	21:48	16	07:02 (C14)	20:42	26	07:05 (C14)	19:21			18:02	15:58	15:39
22	04:58		06:44 (C14)	05:57		06:41 (C14)	06:59			08:01	08:07	08:49
	21:46	20	07:04 (C14)	20:40	22	07:03 (C14)	19:18			18:00	15:56	15:40
23	04:59		06:43 (C14)	05:59		06:43 (C14)	07:01			08:03	08:09	08:49
	21:45	22	07:05 (C14)	20:37	17	07:00 (C14)	19:15			17:57	15:55	15:40
24	05:01		06:42 (C14)	06:01		06:47 (C14)	07:03			08:05	08:11	08:50
	21:43	25	07:07 (C14)	20:35	9	06:56 (C14)	19:12			17:55	15:53	15:41
25	05:03		06:41 (C14)	06:03			07:05			07:07	08:13	08:50
	21:41	27	07:08 (C14)	20:32			19:10			16:52	15:52	15:41
26	05:05		06:40 (C14)	06:05			07:07			07:10	08:15	08:51
	21:39	29	07:09 (C14)	20:30			19:07			16:50	15:51	15:42
27	05:06		06:39 (C14)	06:07			07:09			07:12	08:17	08:51
	21:37	31	07:10 (C14)	20:27			19:04			16:48	15:50	15:43
28	05:08		06:39 (C14)	06:09			07:11			07:14	08:19	08:51
	21:36	32	07:11 (C14)	20:24			19:02			16:45	15:48	15:44
29	05:10		06:37 (C14)	06:11			07:13			07:16	08:21	08:51
	21:34	34	07:11 (C14)	20:22			18:59			16:43	15:47	15:45
30	05:12		06:37 (C14)	06:13			07:15			07:18	08:22	08:51
	21:32	35	07:12 (C14)	20:19			18:56			16:41	15:46	15:46
31	05:14		06:37 (C14)	06:15						07:20		08:51
	21:30	36	07:13 (C14)	20:17						16:38		15:47
Potential sun hours	529			469			385			324	247	216
Total, worst case	458			843			289					
Sun reduction	0.49			0.50			0.43					
Oper. time red.	0.94			0.94			0.94					
Wind dir. red.	0.66			0.65			0.65					
Total reduction	0.30			0.31			0.26					
Total, real	139			258			76					

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Viksnes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (19)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:43
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:57	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:08	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:20	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:37 22:03	05:31 21:11	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:07	06:24 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:04	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:12 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:51 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:46	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vipes skola 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (187)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January			February			March	April	May	June	
1	08:51		10:33 (C13)	08:15		10:47 (C13)	07:11	06:49	05:32		04:36
	15:48	41	11:14 (C13)	16:45	31	11:18 (C13)	17:48	19:53	20:55		21:53
2	08:50		10:33 (C13)	08:13		10:49 (C13)	07:08	06:46	05:30		04:35
	15:49	42	11:15 (C13)	16:47	28	11:17 (C13)	17:50	19:55	20:57	5	06:03 (C1)
3	08:50		10:33 (C13)	08:11		10:51 (C13)	07:06	06:43	05:28		05:56 (C1)
	15:51	42	11:15 (C13)	16:50	25	11:16 (C13)	17:52	19:57	21:00	9	06:05 (C1)
4	08:50		10:33 (C13)	08:09		10:54 (C13)	07:03	06:41	05:26		05:54 (C1)
	15:52	42	11:15 (C13)	16:52	20	11:14 (C13)	17:54	19:59	21:02	13	06:07 (C1)
5	08:49		10:34 (C13)	08:07		10:57 (C13)	07:00	06:38	05:23		05:52 (C1)
	15:53	42	11:16 (C13)	16:54	14	11:11 (C13)	17:56	20:01	21:04	16	06:08 (C1)
6	08:49		10:34 (C13)	08:05			06:58	06:35	05:21		05:50 (C1)
	15:55	43	11:17 (C13)	16:56			17:58	20:03	21:06	19	06:09 (C1)
7	08:48		10:34 (C13)	08:03			06:55	06:33	05:19		05:49 (C1)
	15:56	43	11:17 (C13)	16:59			18:00	20:05	21:08	20	06:09 (C1)
8	08:48		10:35 (C13)	08:01			06:53	06:30	05:17		05:48 (C1)
	15:58	43	11:18 (C13)	17:01			18:03	20:08	21:10	22	06:10 (C1)
9	08:47		10:35 (C13)	07:58			06:50	06:28	05:15		05:48 (C1)
	15:59	43	11:18 (C13)	17:03			18:05	20:10	21:12	22	06:10 (C1)
10	08:46		10:35 (C13)	07:56			06:47	06:25	05:13		05:48 (C1)
	16:01	44	11:19 (C13)	17:05			18:07	20:12	21:14	22	06:10 (C1)
11	08:45		10:36 (C13)	07:54			06:45	06:22	05:11		05:47 (C1)
	16:03	44	11:20 (C13)	17:08			18:09	20:14	21:16	23	06:10 (C1)
12	08:44		10:36 (C13)	07:52			06:42	06:20	05:08		05:47 (C1)
	16:04	44	11:20 (C13)	17:10			18:11	20:16	21:18	23	06:10 (C1)
13	08:43		10:36 (C13)	07:49			06:40	06:17	05:06		05:47 (C1)
	16:06	44	11:20 (C13)	17:12			18:13	20:18	21:20	22	06:09 (C1)
14	08:42		10:36 (C13)	07:47			06:37	06:14	05:04		05:48 (C1)
	16:08	45	11:21 (C13)	17:14			18:15	20:20	21:22	22	06:10 (C1)
15	08:41		10:36 (C13)	07:45			06:34	06:12	05:03		05:48 (C1)
	16:10	45	11:21 (C13)	17:17			18:18	20:22	21:24	21	06:09 (C1)
16	08:40		10:37 (C13)	07:43			06:32	06:09	05:01		05:48 (C1)
	16:12	45	11:22 (C13)	17:19			18:20	20:24	21:25	20	06:08 (C1)
17	08:39		10:38 (C13)	07:40			06:29	06:07	04:59		05:50 (C1)
	16:14	45	11:23 (C13)	17:21			18:22	20:26	21:27	19	06:09 (C1)
18	08:37		10:38 (C13)	07:38			06:26	06:04	04:57		05:50 (C1)
	16:16	44	11:22 (C13)	17:23			18:24	20:28	21:29	18	06:08 (C1)
19	08:36		10:38 (C13)	07:35			06:24	06:02	04:55		05:50 (C1)
	16:18	44	11:22 (C13)	17:26			18:26	20:30	21:31	16	06:06 (C1)
20	08:35		10:39 (C13)	07:33			06:21	05:59	04:53		05:52 (C1)
	16:20	44	11:23 (C13)	17:28			18:28	20:33	21:33	14	06:06 (C1)
21	08:33		10:39 (C13)	07:31			06:18	05:57	04:52		05:53 (C1)
	16:22	44	11:23 (C13)	17:30			18:30	20:35	21:35	11	06:04 (C1)
22	08:32		10:39 (C13)	07:28			06:16	05:54	04:50		05:55 (C1)
	16:24	44	11:23 (C13)	17:32			18:32	20:37	21:37	8	06:03 (C1)
23	08:30		10:39 (C13)	07:26			06:13	05:52	04:48		04:26
	16:26	44	11:23 (C13)	17:34			18:34	20:39	21:38		22:10
24	08:29		10:41 (C13)	07:23			06:10	05:49	04:47		04:26
	16:28	42	11:23 (C13)	17:37			18:36	20:41	21:40		22:10
25	08:27		10:41 (C13)	07:21			06:07	05:47	04:45		04:26
	16:30	42	11:23 (C13)	17:39			18:38	20:43	21:42		22:10
26	08:26		10:42 (C13)	07:18			06:05	05:44	04:44		04:27
	16:32	41	11:23 (C13)	17:41			18:41	20:45	21:43		22:10
27	08:24		10:43 (C13)	07:16			06:02	05:42	04:42		04:27
	16:34	40	11:23 (C13)	17:43			18:43	20:47	21:45		22:10
28	08:22		10:43 (C13)	07:13			05:59	05:40	04:41		04:28
	16:36	39	11:22 (C13)	17:45			18:45	20:49	21:47		22:10
29	08:20		10:44 (C13)				06:57	05:37	04:40		04:29
	16:39	38	11:22 (C13)				19:47	20:51	21:48		22:10
30	08:18		10:46 (C13)				06:54	05:35	04:38		04:29
	16:41	35	11:21 (C13)				19:49	20:53	21:50		22:09
31	08:17		10:47 (C13)				06:51		04:37		
	16:43	33	11:20 (C13)				19:51		21:51		
Potential sun hours	235			266			366	426	508		529
Total, worst case		1311			118					365	
Sun reduction		0.13			0.20					0.57	
Oper. time red.		0.94			0.94					0.94	
Wind dir. red.		0.61			0.61					0.67	
Total reduction		0.07			0.11					0.35	
Total, real		96			13					126	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vipes skola 1 - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (187)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	05:58 (C1) 20:14	06:17 18:54	07:17 16:36	08:24 15:45
2	04:31 22:09	05:18 21:26	06:20 (C1) 20:11	06:19 18:51	07:25 16:34	08:26 15:44
3	04:32 22:08	05:19 21:24	06:20 (C1) 20:09	06:21 18:48	07:27 16:32	08:28 15:43
4	04:33 22:07	05:21 21:22	06:20 (C1) 20:06	06:23 18:46	07:29 16:29	08:29 15:42
5	04:34 22:07	05:23 21:20	06:20 (C1) 20:03	06:25 18:43	07:31 16:27	08:31 15:42
6	04:35 22:06	05:25 21:17	06:19 (C1) 20:01	06:27 18:40	07:33 16:25	08:32 15:41
7	04:36 22:05	05:27 21:15	06:00 (C1) 19:58	06:29 18:38	07:36 16:23	08:34 15:40
8	04:37 22:04	05:29 21:13	06:02 (C1) 19:55	06:31 18:35	07:38 16:21	08:35 15:40
9	04:38 22:03	05:31 21:11	06:04 (C1) 19:53	06:33 18:32	07:40 16:19	08:37 15:39
10	04:39 22:02	05:33 21:08	06:06 (C1) 19:50	06:35 18:30	07:42 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:07 (C1) 19:47	06:37 18:27	07:44 16:15	08:39 15:38
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	04:43 21:59	05:39 21:02	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 16:08	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	04:52 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 21:49	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	06:06 (C1) 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	04:57 21:46	06:11 (C1) 20:40	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:39
23	04:59 21:45	06:04 (C1) 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	05:01 21:43	06:02 (C1) 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	05:03 21:41	06:17 (C1) 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
26	05:04 21:39	06:01 (C1) 20:30	07:07 19:07	08:15 17:50	08:15 15:51	08:51 15:42
27	05:06 21:38	06:18 (C1) 20:27	07:09 19:04	08:12 17:47	08:17 15:49	08:51 15:43
28	05:08 21:36	06:19 (C1) 20:24	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	05:10 21:34	05:58 (C1) 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	05:12 21:32	06:20 (C1) 20:19	07:15 18:56	08:18 17:41	08:22 15:46	08:51 15:46
31	05:14 21:30	06:15 (C1) 20:17	07:20 18:54	08:20 17:39	08:24 15:45	08:51 15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case	185	185			964	1261
Sun reduction	0.49	0.50			0.08	0.07
Oper. time red.	0.94	0.94			0.94	0.94
Wind dir. red.	0.67	0.67			0.61	0.61
Total reduction	0.30	0.30			0.05	0.04
Total, real	55	56			44	49

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vipmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (115)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

January		February		March		April		May		June	
1	08:51 15:48	55 13:12 (C1)	08:15 16:45	29 09:29 (C2)	07:11 17:47	06:49 19:53		05:32 20:55		07:25 (C17) 21:53	07:33 (C17) 63
2	08:50 15:49	54 13:13 (C1)	08:13 16:47	30 09:30 (C2)	07:08 17:50	06:46 19:55		05:30 20:57	84 08:49 (C17)	04:34 21:54	07:34 (C17) 61
3	08:50 15:50	53 13:13 (C1)	08:11 16:49	31 09:31 (C2)	07:06 17:52	06:43 19:57		05:28 20:59	84 08:49 (C17)	04:33 21:55	07:34 (C17) 61
4	08:50 15:52	52 13:13 (C1)	08:09 16:52		07:03 17:54	06:41 19:59	08:12 (C17) 6	05:25 21:02	84 08:49 (C17)	04:32 21:57	07:34 (C17) 60
5	08:49 15:53	50 13:14 (C1)	08:07 16:54	32 09:32 (C2)	07:00 17:56	06:38 20:01	08:02 (C17) 24	05:23 21:04	84 08:49 (C17)	04:31 21:58	07:36 (C17) 58
6	08:49 15:55	48 13:14 (C1)	08:05 16:56	32 09:32 (C2)	06:58 17:58	06:35 20:03	07:58 (C17) 32	05:21 21:06	84 08:49 (C17)	04:31 21:59	07:36 (C17) 58
7	08:48 15:56	45 13:14 (C1)	08:03 16:58	32 09:32 (C2)	06:55 18:00	06:33 20:05	07:54 (C17) 39	05:19 21:08	83 08:48 (C17)	04:30 22:00	07:36 (C17) 57
8	08:48 15:58	43 13:14 (C1)	08:00 17:01	31 09:32 (C2)	06:53 18:02	06:30 20:07	07:51 (C17) 44	05:17 21:10	83 08:48 (C17)	04:29 22:01	07:37 (C17) 56
9	08:47 15:59	35 13:14 (C1)	07:58 17:03		06:50 18:05	06:27 20:10	07:49 (C17) 49	05:14 21:12	82 08:47 (C17)	04:28 22:02	07:37 (C17) 56
10	08:46 16:01	32 13:14 (C1)	07:56 17:05	31 09:32 (C2)	06:47 18:07	06:25 20:12	07:46 (C17) 53	05:12 21:14	82 08:47 (C17)	04:28 22:03	07:38 (C17) 55
11	08:45 16:03	31 13:14 (C1)	07:54 17:07		06:45 18:09	06:22 20:14	07:44 (C17) 57	05:10 21:16	81 08:46 (C17)	04:27 22:04	07:38 (C17) 54
12	08:44 16:04	30 13:14 (C1)	07:52 17:10	28 09:30 (C2)	06:42 18:11	06:20 20:16	07:42 (C17) 60	05:08 21:18	81 08:46 (C17)	04:27 22:05	07:39 (C17) 53
13	08:43 16:06	28 13:13 (C1)	07:49 17:12		06:39 18:13	06:17 20:18	07:41 (C17) 63	05:06 21:20	80 08:45 (C17)	04:26 22:06	07:40 (C17) 52
14	08:42 16:08	27 13:13 (C1)	07:47 17:14	24 09:28 (C2)	06:37 18:15	06:14 20:20	07:39 (C17) 65	05:04 21:22	79 08:44 (C17)	04:26 22:07	07:40 (C17) 51
15	08:41 16:10	25 13:13 (C1)	07:45 17:16		06:34 18:17	06:12 20:22	07:38 (C17) 68	05:02 21:24	79 08:45 (C17)	04:25 22:07	07:40 (C17) 52
16	08:40 16:12	23 13:12 (C1)	07:43 17:19	21 09:27 (C2)	06:31 18:19	06:09 20:24	07:36 (C17) 70	05:00 21:25	78 08:44 (C17)	04:25 22:08	07:41 (C17) 51
17	08:39 16:13	20 13:11 (C1)	07:40 17:21	18 09:25 (C2)	06:29 18:22	06:07 20:26	07:35 (C17) 72	04:59 21:27	77 08:43 (C17)	04:25 22:08	07:41 (C17) 51
18	08:37 16:15	16 13:09 (C1)	07:38 17:23	13 09:23 (C2)	06:26 18:24	06:04 20:28	07:34 (C17) 73	04:57 21:29	76 08:43 (C17)	04:25 22:09	07:41 (C17) 51
19	08:36 16:17	12 13:07 (C1)	07:35 17:25		06:23 18:26	06:02 20:30	07:33 (C17) 75	04:55 21:31	76 08:42 (C17)	04:25 22:09	07:42 (C17) 50
20	08:35 16:19		07:33 17:28		06:21 18:28	05:59 20:32	07:31 (C17) 77	04:53 21:33	75 08:42 (C17)	04:25 22:10	07:42 (C17) 50
21	08:33 16:21		07:31 17:30		06:18 18:30	05:56 20:35	07:31 (C17) 78	04:51 21:35	74 08:41 (C17)	04:25 22:10	07:42 (C17) 50
22	08:32 16:23		07:28 17:32		06:15 18:32	05:54 20:37	07:29 (C17) 79	04:50 21:36	73 08:41 (C17)	04:25 22:10	07:43 (C17) 50
23	08:30 16:26		07:26 17:34		06:13 18:34	05:52 20:39	07:29 (C17) 80	04:48 21:38	72 08:40 (C17)	04:25 22:10	07:43 (C17) 50
24	08:29 16:28	8 09:10 (C2)	07:23 17:36		06:10 18:36	05:49 20:41	07:29 (C17) 81	04:46 21:40	71 08:40 (C17)	04:26 22:10	07:43 (C17) 50
25	08:27 16:30		07:21 17:39		06:07 18:38	05:47 20:43	07:27 (C17) 82	04:45 21:42	70 08:40 (C17)	04:26 22:10	07:43 (C17) 51
26	08:25 16:32	14 09:07 (C2)	07:18 17:41		06:05 18:40	05:44 20:45	07:27 (C17) 82	04:43 21:43	69 08:38 (C17)	04:27 22:10	07:43 (C17) 51
27	08:24 16:34	17 09:23 (C2)	07:16 17:43		06:02 18:42	05:42 20:47	07:27 (C17) 83	04:42 21:45	68 08:38 (C17)	04:27 22:10	07:43 (C17) 52
28	08:22 16:36	21 09:25 (C2)	07:13 17:45		05:59 18:45	05:39 20:49	07:27 (C17) 83	04:41 21:47	67 08:38 (C17)	04:28 22:10	07:43 (C17) 51
29	08:20 16:38	23 09:26 (C2)			06:57 19:47	05:37 20:51	07:26 (C17) 83	04:39 21:48	66 08:37 (C17)	04:28 22:10	07:43 (C17) 52
30	08:18 16:41	24 09:27 (C2)			06:54 19:49	05:35 20:53	07:25 (C17) 84	04:38 21:50	65 08:37 (C17)	04:29 22:09	07:42 (C17) 53
31	08:17 16:43	27 09:29 (C2)			06:51 19:51		08:49 (C17)	04:37 21:51	63 08:36 (C17)		08:35 (C17)
Potential sun hours	235		266		366	426		508		529	
Total, worst case	841		471			1742		2374		1610	
Sun reduction	0.13		0.20			0.50		0.57		0.56	
Oper. time red.	0.94		0.94			0.94		0.94		0.94	
Wind dir. red.	0.63		0.59			0.65		0.65		0.65	
Total reduction	0.08		0.11			0.30		0.34		0.34	
Total, real	65		52			529		819		546	

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Vipmali - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (115)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July			August			September			October			November			December		
1	04:30		07:43 (C17)	05:15		07:35 (C17)	06:17		07:43 (C17)	07:17		07:22		08:30 (C2)	08:24		12:25 (C1)	
	22:09	53	08:36 (C17)	21:28	81	08:56 (C17)	20:14	57	08:40 (C17)	18:53		16:36	31	09:01 (C2)	15:45	31	12:56 (C1)	
2	04:31		07:43 (C17)	05:17		07:35 (C17)	06:19		07:45 (C17)	07:19		07:25		08:30 (C2)	08:26		12:25 (C1)	
	22:09	54	08:37 (C17)	21:26	82	08:57 (C17)	20:11	53	08:38 (C17)	18:51		16:34	31	09:01 (C2)	15:44	32	12:57 (C1)	
3	04:31		07:43 (C17)	05:19		07:35 (C17)	06:21		07:47 (C17)	07:21		07:27		08:30 (C2)	08:28		10:20 (C4)	
	22:08	55	08:38 (C17)	21:24	82	08:57 (C17)	20:09	49	08:36 (C17)	18:48		16:31	32	09:02 (C2)	15:43	35	12:57 (C1)	
4	04:32		07:43 (C17)	05:21		07:34 (C17)	06:23		07:48 (C17)	07:23		07:29		08:30 (C2)	08:29		10:18 (C4)	
	22:07	55	08:38 (C17)	21:22	83	08:57 (C17)	20:06	44	08:32 (C17)	18:45		16:29	32	09:02 (C2)	15:42	40	12:58 (C1)	
5	04:33		07:43 (C17)	05:23		07:34 (C17)	06:25		07:50 (C17)	07:25		07:31		08:29 (C2)	08:31		10:17 (C4)	
	22:07	56	08:39 (C17)	21:19	83	08:57 (C17)	20:03	39	08:29 (C17)	18:43		16:27	32	09:01 (C2)	15:41	45	12:59 (C1)	
6	04:34		07:43 (C17)	05:25		07:34 (C17)	06:27		07:53 (C17)	07:27		07:33		08:30 (C2)	08:32		10:16 (C4)	
	22:06	57	08:40 (C17)	21:17	84	08:58 (C17)	20:01	33	08:26 (C17)	18:40		16:25	32	09:02 (C2)	15:41	48	13:00 (C1)	
7	04:35		07:42 (C17)	05:27		07:34 (C17)	06:29		07:57 (C17)	07:29		07:36		08:30 (C2)	08:34		10:15 (C4)	
	22:05	59	08:41 (C17)	21:15	84	08:58 (C17)	19:58	24	08:21 (C17)	18:38		16:23	31	09:01 (C2)	15:40	50	13:00 (C1)	
8	04:37		07:42 (C17)	05:29		07:34 (C17)	06:31		08:04 (C17)	07:31		07:38		08:31 (C2)	08:35		10:16 (C4)	
	22:04	59	08:41 (C17)	21:13	84	08:58 (C17)	19:55	9	08:13 (C17)	18:35		16:21	31	09:02 (C2)	15:39	51	13:01 (C1)	
9	04:38		07:42 (C17)	05:31		07:34 (C17)	06:33			07:34		07:40		08:31 (C2)	08:37		10:15 (C4)	
	22:03	60	08:42 (C17)	21:11	84	08:58 (C17)	19:53			18:32		16:19	30	09:01 (C2)	15:39	53	13:01 (C1)	
10	04:39		07:41 (C17)	05:33		07:33 (C17)	06:35			07:36		07:42		08:31 (C2)	08:38		10:16 (C4)	
	22:02	62	08:43 (C17)	21:08	85	08:58 (C17)	19:50			18:30		16:17	29	09:00 (C2)	15:39	53	13:02 (C1)	
11	04:40		07:41 (C17)	05:35		07:34 (C17)	06:37			07:38		07:44		08:32 (C2)	08:39		10:15 (C4)	
	22:01	62	08:43 (C17)	21:06	84	08:58 (C17)	19:47			18:27		16:15	28	09:00 (C2)	15:38	55	13:02 (C1)	
12	04:42		07:40 (C17)	05:37		07:34 (C17)	06:39			07:40		07:46		08:33 (C2)	08:40		10:16 (C4)	
	22:00	64	08:44 (C17)	21:04	84	08:58 (C17)	19:45			18:24		16:13	26	08:59 (C2)	15:38	56	13:04 (C1)	
13	04:43		07:41 (C17)	05:39		07:34 (C17)	06:41			07:42		07:49		08:35 (C2)	08:42		10:16 (C4)	
	21:59	64	08:45 (C17)	21:01	84	08:58 (C17)	19:42			18:22		16:11	24	08:59 (C2)	15:38	57	13:04 (C1)	
14	04:45		07:40 (C17)	05:41		07:34 (C17)	06:43			07:44		07:51		08:35 (C2)	08:43		10:16 (C4)	
	21:58	66	08:46 (C17)	20:59	84	08:58 (C17)	19:39			18:19		16:09	23	08:58 (C2)	15:38	57	13:04 (C1)	
15	04:46		07:40 (C17)	05:43		07:34 (C17)	06:45			07:46		07:53		08:36 (C2)	08:44		10:16 (C4)	
	21:57	66	08:46 (C17)	20:57	83	08:57 (C17)	19:37			18:17		16:07	21	08:57 (C2)	15:38	59	13:05 (C1)	
16	04:47		07:40 (C17)	05:45		07:33 (C17)	06:47			07:48		07:55		08:39 (C2)	08:45		10:17 (C4)	
	21:55	67	08:47 (C17)	20:54	83	08:56 (C17)	19:34			18:14		16:06	17	08:56 (C2)	15:38	57	13:05 (C1)	
17	04:49		07:39 (C17)	05:47		07:34 (C17)	06:49			07:50		07:57		08:40 (C2)	08:46		10:17 (C4)	
	21:54	69	08:48 (C17)	20:52	82	08:56 (C17)	19:31			18:12		16:04	14	08:54 (C2)	15:38	59	13:06 (C1)	
18	04:51		07:39 (C17)	05:49		07:34 (C17)	06:51			07:52		07:59		08:44 (C2)	08:46		10:18 (C4)	
	21:52	69	08:48 (C17)	20:49	82	08:56 (C17)	19:28			18:09		16:02	8	08:52 (C2)	15:38	58	13:06 (C1)	
19	04:52		07:39 (C17)	05:51		07:34 (C17)	06:53			07:54		08:01			08:47		10:18 (C4)	
	21:51	70	08:49 (C17)	20:47	81	08:55 (C17)	19:26			18:07		16:01			15:38	59	13:07 (C1)	
20	04:54		07:38 (C17)	05:53		07:35 (C17)	06:55			07:57		08:03			08:48		10:18 (C4)	
	21:49	71	08:49 (C17)	20:45	80	08:55 (C17)	19:23			18:04		15:59			15:38	59	13:07 (C1)	
21	04:56		07:38 (C17)	05:55		07:35 (C17)	06:57			07:59		08:05			08:48		10:19 (C4)	
	21:48	73	08:51 (C17)	20:42	79	08:54 (C17)	19:20			18:02		15:57			15:39	59	13:08 (C1)	
22	04:57		07:38 (C17)	05:57		07:36 (C17)	06:59			08:01		08:07			08:49		10:19 (C4)	
	21:46	74	08:52 (C17)	20:40	77	08:53 (C17)	19:18			17:59		15:56			15:39	59	13:08 (C1)	
23	04:59		07:37 (C17)	05:59		07:36 (C17)	07:01			08:03		08:09		12:32 (C1)	08:50		10:20 (C4)	
	21:45	75	08:52 (C17)	20:37	77	08:53 (C17)	19:15			17:57		15:54	12	12:44 (C1)	15:40	59	13:09 (C1)	
24	05:01		07:38 (C17)	06:01		07:37 (C17)	07:03			08:05		08:11		12:30 (C1)	08:50		10:20 (C4)	
	21:43	75	08:53 (C17)	20:35	75	08:52 (C17)	19:12			17:54	6	09:49 (C2)	15:53	16	12:46 (C1)	15:40	60	13:09 (C1)
25	05:02		07:37 (C17)	06:03		07:36 (C17)	07:05			07:07		08:38 (C2)	08:13		12:28 (C1)	08:50		10:20 (C4)
	21:41	76	08:53 (C17)	20:32	74	08:50 (C17)	19:10			16:52	15	08:53 (C2)	15:52	20	12:48 (C1)	15:41	59	13:09 (C1)
26	05:04		07:37 (C17)	06:05		07:37 (C17)	07:07			07:09		08:37 (C2)	08:15		12:27 (C1)	08:51		10:21 (C4)
	21:39	77	08:54 (C17)	20:29	72	08:49 (C17)	19:07			16:50	19	08:56 (C2)	15:50	23	12:50 (C1)	15:42	59	13:10 (C1)
27	05:06		07:37 (C17)	06:07		07:38 (C17)	07:09			07:12		08:35 (C2)	08:17		12:27 (C1)	08:51		10:21 (C4)
	21:38	78	08:55 (C17)	20:27	70	08:48 (C17)	19:04			16:47	22	08:57 (C2)	15:49	25	12:52 (C1)	15:42	58	13:10 (C1)
28	05:08		07:36 (C17)	06:09		07:39 (C17)	07:11			07:14		08:33 (C2)	08:19		12:26 (C1)	08:51		10:22 (C4)
	21:36	78	08:54 (C17)	20:24	67	08:46 (C17)	19:01			16:45	25	08:58 (C2)	15:48	27	12:53 (C1)	15:43	59	13:11 (C1)
29	05:10		07:36 (C17)	06:11		07:40 (C17)	07:13			07:16		08:33 (C2)	08:21		12:26 (C1)	08:51		10:23 (C4)
	21:34	79	08:55 (C17)	20:22	65	08:45 (C17)	18:59			16:43	26	08:59 (C2)	15:47	28	12:54 (C1)	15:44	57	13:11 (C1)
30	05:12		07:36 (C17)	06:13		07:41 (C17)	07:15			07:18		08:31 (C2)	08:22		12:26 (C1)	08:51		10:24 (C4)
	21:32	80	08:56 (C17)	20:19	62	08:43 (C17)	18:56			16:40	29	09:00 (C2)	15:46	29	12:55 (C1)	15:45	57	13:12 (C1)
31	05:14		07:35 (C17)	06:15		07:42 (C17)				07:20		08:30 (C2)			08:51		10:25 (C4)	
	21:30	81	08:56 (C17)	20:17	60	08:42 (C17)				16:38	30	09:00 (C2)			15:46	56	13:12 (C1)	
Potential sun hours		529		469		385				324		247			216			
Total, worst case		2084		2437		308				172		652			1656			
Sun reduction		0.49		0.50		0.43				0.26		0.08			0.07			
Oper. time red.		0.94		0.94		0.94				0.94		0.94			0.94			
Wind dir. red.		0.65		0.65		0.65				0.59		0.60			0.63			
Total reduction		0.30		0.30		0.26				0.14		0.05			0.04			
Total, real		624		737		80				24		30			68			

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Zalumi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (178)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:56	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:05	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:06	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	04:26 22:06	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:23	04:26 22:07	04:47 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:44 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:29	07:52 18:09	07:59 16:03	08:46 15:38
19	08:36 16:18	07:35 17:26	06:24 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:54 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:38	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	08:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	08:10 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:37	06:07 20:27	07:09 19:04	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 21:46	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	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:30 22:09	05:12 21:32	06:13 20:19	07:15 18:56	08:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Zemturi - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (39)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:21 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:23 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:25 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:02	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:39
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:50 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	07:12 17:48	08:17 15:49	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	07:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:54	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	07:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 17:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Zemites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (194)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:33	08:25 15:44
3	08:50 15:50	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:33 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ziedini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (111)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48 29	09:55 (C13) 10:24 (C13) 16:45	08:15 10:15 (C13) 17:48	07:11 10:22 (C13) 17:48	06:49 19:53 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 18:54 16:36	07:17 16:36 15:45	07:23 15:45 10:13 (C13)
2	08:51 15:49 29	09:56 (C13) 10:25 (C13) 16:47	08:13 10:25 (C13) 17:50	07:08 19:55 20:58	06:46 20:55 21:54	05:30 21:54 22:09	04:31 21:26 20:11	05:18 20:11 18:51	06:19 18:51 16:34	07:19 16:34 15:42	07:25 15:42 10:13 (C13)	07:25 15:42 10:13 (C13)
3	08:50 15:51 30	09:55 (C13) 10:25 (C13) 16:50	08:11 10:25 (C13) 17:52	07:06 19:57 21:00	06:43 21:00 21:55	05:28 21:55 22:08	04:34 21:55 22:08	05:19 21:24 20:09	06:21 18:48 16:32	07:21 16:32 15:42	07:27 15:42 10:13 (C13)	07:27 15:42 10:13 (C13)
4	08:50 15:52 30	09:55 (C13) 10:25 (C13) 16:52	08:09 10:25 (C13) 17:54	07:03 19:59 21:02	06:41 21:02 21:57	05:26 21:02 22:07	04:33 21:57 22:07	05:21 21:22 20:06	06:23 18:46 16:29	07:23 16:29 15:42	07:29 15:42 10:13 (C13)	07:29 15:42 10:13 (C13)
5	08:49 15:53 31	09:56 (C13) 10:27 (C13) 16:54	08:07 10:27 (C13) 17:56	07:01 19:56 21:04	06:38 21:04 21:58	05:23 21:58 22:07	04:32 21:58 22:07	05:23 21:20 20:03	06:25 18:43 16:27	07:25 16:27 15:42	07:31 15:42 10:13 (C13)	07:31 15:42 10:13 (C13)
6	08:49 15:55 31	09:56 (C13) 10:27 (C13) 16:56	08:05 10:27 (C13) 17:58	06:58 19:58 21:06	06:35 21:06 21:59	05:21 21:06 22:06	04:31 21:59 22:06	05:25 21:27 20:01	06:27 18:40 16:25	07:27 16:25 15:41	07:33 15:41 10:13 (C13)	07:33 15:41 10:13 (C13)
7	08:48 15:56 32	09:56 (C13) 10:28 (C13) 16:59	08:03 10:28 (C13) 17:59	06:55 19:59 21:08	06:33 21:08 22:00	05:19 21:08 22:05	04:30 21:08 21:25	05:27 19:58 18:38	06:29 18:38 16:23	07:30 16:23 15:40	07:36 15:40 10:13 (C13)	07:36 15:40 10:13 (C13)
8	08:48 15:58 32	09:56 (C13) 10:28 (C13) 17:01	08:01 10:28 (C13) 17:58	06:53 19:58 21:10	06:30 21:10 22:01	05:17 21:10 22:04	04:29 21:10 21:23	05:29 19:55 18:35	06:31 18:35 16:21	07:32 16:21 15:40	07:38 15:40 10:14 (C13)	07:38 15:40 10:14 (C13)
9	08:47 15:59 32	09:57 (C13) 10:29 (C13) 17:03	07:58 10:29 (C13) 17:56	06:50 19:57 21:12	06:28 21:12 22:02	05:15 21:12 22:03	04:28 21:12 21:31	05:31 19:53 18:32	06:33 18:32 16:19	07:34 16:19 15:39	07:40 15:39 10:13 (C13)	07:40 15:39 10:13 (C13)
10	08:46 16:01 33	09:57 (C13) 10:30 (C13) 17:05	07:56 10:30 (C13) 17:54	06:47 19:57 21:14	06:25 21:14 22:03	05:13 21:14 22:02	04:28 21:14 21:31	05:33 19:50 18:30	06:35 18:30 16:17	07:36 16:17 15:39	07:42 15:39 10:14 (C13)	07:42 15:39 10:14 (C13)
11	08:45 16:03 33	09:57 (C13) 10:30 (C13) 17:08	07:54 10:30 (C13) 17:52	06:45 19:58 21:16	06:22 21:16 22:04	05:11 21:16 22:01	04:27 21:16 21:06	05:35 19:47 18:27	06:37 18:27 16:15	07:38 16:15 15:38	07:44 15:38 10:14 (C13)	07:44 15:38 10:14 (C13)
12	08:44 16:04 33	09:58 (C13) 10:31 (C13) 17:10	07:52 10:31 (C13) 17:50	06:42 19:59 21:18	06:20 21:18 22:05	05:08 21:18 22:00	04:27 21:18 21:04	05:37 19:45 18:25	06:39 18:25 16:13	07:40 16:13 15:38	07:46 15:38 10:15 (C13)	07:46 15:38 10:15 (C13)
13	08:43 16:06 34	09:57 (C13) 10:31 (C13) 17:12	07:50 10:31 (C13) 17:47	06:40 19:58 21:20	06:17 21:20 22:06	05:06 21:20 22:06	04:26 21:20 21:59	05:39 19:42 18:22	06:41 18:22 16:11	07:42 16:11 15:38	07:49 15:38 10:15 (C13)	07:49 15:38 10:15 (C13)
14	08:42 16:08 34	09:58 (C13) 10:32 (C13) 17:14	07:47 10:32 (C13) 17:14	06:37 19:59 21:22	06:15 21:22 22:07	05:04 21:22 22:07	04:26 21:22 21:58	05:41 19:39 18:20	06:43 18:20 16:09	07:44 16:09 15:38	07:51 15:38 10:15 (C13)	07:51 15:38 10:15 (C13)
15	08:41 16:10 34	09:59 (C13) 10:33 (C13) 17:17	07:45 10:33 (C13) 17:17	06:34 19:59 21:24	06:12 21:24 22:07	05:03 21:24 22:07	04:26 21:24 21:57	05:43 19:37 18:17	06:45 18:17 16:08	07:46 16:08 15:38	07:53 15:38 10:15 (C13)	07:53 15:38 10:15 (C13)
16	08:40 16:12 34	09:58 (C13) 10:32 (C13) 17:19	07:43 10:32 (C13) 17:19	06:32 19:58 21:26	06:09 21:26 22:08	05:01 21:26 22:08	04:25 21:26 21:55	05:45 19:34 18:14	06:47 18:14 16:06	07:48 16:06 15:38	07:55 15:38 10:15 (C13)	07:55 15:38 10:15 (C13)
17	08:39 16:14 34	09:59 (C13) 10:33 (C13) 17:21	07:40 10:33 (C13) 17:21	06:29 19:59 21:27	06:07 21:27 22:09	04:59 21:27 22:09	04:25 21:27 21:54	05:47 19:31 18:12	06:49 18:12 16:04	07:50 16:04 15:38	07:57 15:38 10:16 (C13)	07:57 15:38 10:16 (C13)
18	08:38 16:16 34	09:59 (C13) 10:33 (C13) 17:23	07:38 10:33 (C13) 17:23	06:26 19:59 21:29	06:04 21:29 22:09	04:57 21:29 22:09	04:25 21:29 21:52	05:49 19:29 18:09	06:51 18:09 16:02	07:52 16:02 15:38	07:59 15:38 10:16 (C13)	07:59 15:38 10:16 (C13)
19	08:36 16:18 34	09:59 (C13) 10:33 (C13) 17:26	07:36 10:33 (C13) 17:26	06:24 19:59 21:31	06:02 21:31 22:09	04:55 21:31 22:09	04:25 21:31 21:51	05:51 19:26 18:07	06:53 18:07 16:01	07:55 16:01 15:38	08:01 15:38 10:17 (C13)	08:01 15:38 10:17 (C13)
20	08:35 16:20 33	09:59 (C13) 10:34 (C13) 17:28	07:33 10:34 (C13) 17:28	06:21 19:59 21:33	06:00 21:33 22:10	04:53 21:33 22:10	04:25 21:33 21:49	05:53 19:23 18:04	06:55 18:04 15:59	07:57 15:59 15:38	08:03 15:38 10:17 (C13)	08:03 15:38 10:17 (C13)
21	08:33 16:22 32	09:59 (C13) 10:34 (C13) 17:30	07:31 10:34 (C13) 17:30	06:18 19:59 21:35	05:57 21:35 22:10	04:52 21:35 22:10	04:25 21:35 21:48	05:55 19:20 18:02	06:57 18:02 15:58	07:59 15:58 15:38	08:05 15:38 10:18 (C13)	08:05 15:38 10:18 (C13)
22	08:32 16:24 32	09:59 (C13) 10:33 (C13) 17:32	07:28 10:33 (C13) 17:32	06:16 19:59 21:37	05:54 21:37 22:10	04:50 21:37 22:10	04:25 21:37 21:46	05:57 19:18 17:59	06:59 17:59 15:56	08:01 15:56 15:38	08:07 15:38 10:18 (C13)	08:07 15:38 10:18 (C13)
23	08:30 16:26 31	09:59 (C13) 10:33 (C13) 17:34	07:26 10:33 (C13) 17:34	06:13 19:59 21:38	05:52 21:38 22:10	04:48 21:38 22:10	04:26 21:38 21:45	05:59 19:15 17:57	07:01 17:57 15:55	08:09 15:55 15:38	08:09 15:38 10:19 (C13)	08:09 15:38 10:19 (C13)
24	08:29 16:28 30	09:59 (C13) 10:33 (C13) 17:37	07:23 10:33 (C13) 17:37	06:10 19:59 21:40	05:49 21:40 22:10	04:47 21:40 22:10	04:26 21:40 21:43	06:01 19:12 17:55	07:03 17:55 15:53	08:11 15:53 15:38	08:11 15:38 10:19 (C13)	08:11 15:38 10:19 (C13)
25	08:27 16:30 29	09:59 (C13) 10:33 (C13) 17:39	07:21 10:33 (C13) 17:39	06:07 19:59 21:42	05:47 21:42 22:10	04:45 21:42 22:10	04:26 21:42 21:41	06:03 19:10 17:52	07:05 17:52 15:52	08:13 15:52 15:38	08:13 15:38 10:19 (C13)	08:13 15:38 10:19 (C13)
26	08:26 16:32 27	09:59 (C13) 10:32 (C13) 17:41	07:18 10:32 (C13) 17:41	06:05 19:59 21:45	05:44 21:45 22:10	04:44 21:45 22:10	04:27 21:45 21:39	06:05 19:07 17:50	07:07 17:50 16:50	08:15 16:50 15:51	08:15 15:51 15:38	08:15 15:38 10:20 (C13)
27	08:24 16:34 26	09:59 (C13) 10:32 (C13) 17:43	07:16 10:32 (C13) 17:43	06:02 19:59 21:47	05:42 21:47 22:10	04:42 21:47 22:10	04:27 21:47 21:38	06:07 19:04 17:52	07:09 17:52 16:47	08:17 16:47 15:49	08:17 15:49 15:38	08:17 15:38 10:20 (C13)
28	08:22 16:36 24	09:59 (C13) 10:31 (C13) 17:45	07:13 10:31 (C13) 17:45	06:00 19:59 21:49	05:40 21:49 22:10	04:41 21:49 22:10	04:28 21:49 21:36	06:09 19:02 17:52	07:11 17:52 16:45	08:19 16:45 15:48	08:19 15:48 15:38	08:19 15:38 10:21 (C13)
29	08:20 16:39 22	09:59 (C13) 10:30 (C13) 17:47	07:10 10:30 (C13) 17:47	06:57 19:59 21:51	05:37 21:51 22:10	04:40 21:51 22:10	04:29 21:51 21:34	06:11 19:22 18:59	07:13 18:59 16:43	08:21 16:43 15:47	08:21 15:47 15:38	08:21 15:38 10:22 (C13)
30	08:19 16:41 19	09:59 (C13) 10:29 (C13) 17:49	07:07 10:29 (C13) 17:49	06:54 19:59 21:50	05:35 21:50 22:09	04:38 21:50 22:09	04:29 21:50 21:32	06:13 19:18 18:56	07:15 18:56 16:41	08:22 16:41 15:46	08:22 15:46 15:38	08:22 15:38 10:22 (C13)
31	08:17 16:43 14	09:59 (C13) 10:27 (C13) 17:51	07:05 10:27 (C13) 17:51	06:51 19:59 21:51	05:33 21:51 22:10	04:37 21:51 22:10	04:30 21:51 21:30	06:15 19:17 18:56	07:20 18:56 16:38	08:23 16:38 15:47	08:23 15:47 15:38	08:23 15:38 10:23 (C13)
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case	932	7									598	889
Sun reduction	0.13	0.20									0.08	0.07
Oper. time red.	0.94	0.94									0.94	0.94
Wind dir. red.	0.61	0.61									0.61	0.61
Total reduction	0.08	0.12									0.05	0.04
Total, real	72	1									28	36

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ziemeli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (125)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March		April	May	June	July	August	September		October		November	December	
1	08:51 15:48	08:15 16:45	07:11 17:48		06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14		07:17 18:54	19	07:46 (C14) 08:05 (C14)	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50		06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11		07:19 18:51	15	07:48 (C14) 08:03 (C14)	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52		06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09		07:21 18:48	11	07:50 (C14) 08:01 (C14)	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54		06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06		07:23 18:46	5	07:52 (C14) 07:57 (C14)	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56		06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04		07:26 18:43			07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:58		06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01		07:28 18:40			07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01		06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58		07:30 18:38			07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03		06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56		07:32 18:35			07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05		06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53		07:34 18:33			07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:06	06:48 18:07	9	07:13 (C14) 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50		07:36 18:30			07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	7	07:10 (C14) 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48		07:38 18:27			07:44 16:15	08:39 15:39
12	08:44 16:03	07:52 17:08	06:42 18:09	14	07:08 (C14) 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 16:06	07:50 17:12	06:40 18:11	18	07:26 (C14) 20:16	05:18 21:18	04:27 22:05	04:44 22:00	05:39 21:04	06:41 19:45		07:42 18:25			07:49 16:13	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	21	07:26 (C14) 20:20	05:20 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	24	07:02 (C14) 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37		07:46 18:17			07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	26	07:01 (C14) 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34		07:48 18:15			07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	26	07:01 (C14) 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31		07:50 18:12			07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	26	07:00 (C14) 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	9	07:55 (C14) 08:04 (C14)			07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	26	07:01 (C14) 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	16	07:57 (C14) 08:07 (C14)			08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	26	07:00 (C14) 20:33	04:59 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	19	07:59 (C14) 08:08 (C14)			08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	24	07:00 (C14) 20:35	04:57 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	21	07:59 (C14) 08:09 (C14)			08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	22	07:02 (C14) 20:37	04:54 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	24	07:46 (C14) 08:10 (C14)			08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	20	07:02 (C14) 20:39	04:52 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	25	07:45 (C14) 08:10 (C14)			08:03 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	17	07:03 (C14) 20:41	04:49 21:40	04:26 22:10	04:59 21:43	06:01 20:35	07:03 19:12	25	07:45 (C14) 08:10 (C14)			08:05 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	11	07:06 (C14) 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	26	07:44 (C14) 08:10 (C14)			08:07 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41		07:17 (C14) 20:45	04:47 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	27	07:44 (C14) 08:10 (C14)			08:13 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	07:43 (C14) 08:09 (C14)			08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45		05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	26	07:43 (C14) 08:09 (C14)			08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47		05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	25	07:43 (C14) 08:08 (C14)			08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49		05:35 20:53	04:38 21:50	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	23	07:44 (C14) 08:07 (C14)			08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51			05:14 21:30	06:15 20:17	07:17 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										292		50				
Sun reduction										0.43		0.26				
Oper. time red.										0.94		0.94				
Wind dir. red.										0.63		0.63				
Total reduction										0.25		0.15				
Total, real										74		8				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ziemeļnieki - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (27)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December		
1	08:50 15:48	08:14 16:45	07:11 17:47	06:49 19:53	05:32 20:55	04:36 21:52	05:45 (C12) 20:45 (C15)	04:30 22:09	05:59 (C12) 20:42 (C16)	05:16 21:28	05:53 (C12) 20:14	06:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:13 16:47	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	05:46 (C12) 20:44 (C15)	04:31 22:08	05:58 (C12) 20:43 (C16)	05:18 21:26	05:54 (C12) 20:11	06:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	05:46 (C12) 20:44 (C15)	04:32 22:08	05:57 (C12) 20:44 (C15)	05:19 21:23	05:55 (C12) 20:09	06:21 18:48	07:21 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	05:47 (C12) 20:43 (C15)	04:33 22:07	05:57 (C12) 20:46 (C15)	05:21 21:21	05:57 (C12) 20:06	06:23 18:45	07:23 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58	05:48 (C12) 20:43 (C15)	04:34 22:06	05:56 (C12) 20:47 (C15)	05:23 21:19	05:58 (C12) 20:03	06:25 18:43	07:25 16:27	08:30 15:42
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	05:49 (C12) 20:42 (C15)	04:35 22:06	05:55 (C12) 20:48 (C15)	05:25 21:17	06:01 (C12) 20:01	06:27 18:40	07:27 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 21:59	05:50 (C12) 20:41 (C15)	04:36 22:05	05:56 (C12) 20:49 (C15)	05:27 21:15	06:29 18:38	07:29 16:23	07:35 15:40	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 21:57	05:48 (C12) 20:41 (C15)	04:29 22:04	05:51 (C12) 20:50 (C15)	05:29 21:13	06:31 18:35	07:31 16:21	07:38 15:40	08:35 15:40
9	08:47 15:59	07:58 17:03	06:50 18:05	06:27 20:09	05:15 21:11	04:29 21:59	05:46 (C12) 20:38 (C15)	04:29 22:02	05:54 (C12) 20:51 (C15)	05:31 21:10	06:33 18:32	07:33 16:19	07:40 15:39	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 21:59	05:45 (C12) 20:40 (C15)	04:28 22:03	05:53 (C12) 20:53 (C15)	05:33 21:10	06:35 18:30	07:36 16:17	07:42 15:39	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:10 21:15	04:27 21:57	05:43 (C12) 20:41 (C15)	04:27 22:04	05:53 (C12) 20:52 (C15)	05:35 21:06	06:37 18:27	07:38 16:15	07:44 15:38	08:39 15:38
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:08 21:17	04:26 21:58	05:42 (C12) 20:43 (C15)	04:27 22:05	05:53 (C12) 20:53 (C15)	05:37 21:04	06:39 18:25	07:40 16:13	07:46 15:38	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 21:59	05:42 (C12) 20:44 (C15)	04:26 22:06	05:53 (C12) 20:54 (C15)	05:39 21:01	06:41 18:22	07:42 16:11	07:48 15:38	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 21:58	05:42 (C12) 20:45 (C15)	04:26 22:06	05:52 (C12) 20:54 (C15)	05:41 21:09	06:43 18:19	07:44 16:09	07:50 15:38	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 21:59	05:41 (C12) 20:46 (C15)	04:26 22:07	05:51 (C12) 20:54 (C15)	05:43 21:07	06:45 18:17	07:46 16:08	07:53 15:38	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 22:00	05:41 (C12) 20:46 (C15)	04:25 22:08	05:52 (C12) 20:55 (C15)	05:45 21:09	06:47 18:14	07:55 16:06	08:44 15:38	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 22:02	05:41 (C12) 20:47 (C15)	04:25 22:08	05:51 (C12) 20:55 (C15)	05:47 21:10	06:49 18:12	07:57 16:04	08:45 15:38	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 22:03	05:41 (C12) 20:47 (C15)	04:25 22:09	05:52 (C12) 20:56 (C15)	05:49 21:11	06:51 18:09	07:59 16:02	08:46 15:38	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 22:04	05:40 (C12) 20:46 (C15)	04:25 22:09	05:51 (C12) 20:56 (C15)	05:51 21:12	06:53 18:07	08:01 16:01	08:47 15:38	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:05	05:41 (C12) 20:47 (C15)	04:25 22:09	05:51 (C12) 20:57 (C15)	05:53 21:13	06:55 18:04	08:03 15:59	08:48 15:39	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 22:06	05:40 (C12) 20:46 (C15)	04:25 22:10	05:51 (C12) 20:57 (C15)	05:55 21:14	06:57 18:02	08:05 15:58	08:48 15:39	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 22:07	05:41 (C12) 20:47 (C15)	04:26 22:10	05:51 (C12) 20:57 (C15)	05:57 21:15	06:59 18:01	08:07 15:56	08:49 15:39	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 22:08	05:41 (C12) 20:47 (C15)	04:26 22:10	05:50 (C12) 20:57 (C15)	05:59 21:16	07:01 18:03	08:09 15:55	08:49 15:40	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 22:09	05:41 (C12) 20:47 (C15)	04:26 22:10	05:51 (C12) 20:57 (C15)	06:01 21:17	07:03 18:05	08:11 15:53	08:50 15:41	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:26 22:10	05:42 (C12) 20:47 (C15)	04:26 22:10	05:50 (C12) 20:57 (C15)	06:03 21:18	07:05 18:07	08:13 15:52	08:50 15:41	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:42 (C12) 20:47 (C15)	04:27 22:10	05:51 (C12) 20:57 (C15)	06:05 21:19	07:07 18:09	08:15 15:51	08:50 15:42	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:42 (C12) 20:46 (C15)	04:27 22:10	05:51 (C12) 20:57 (C15)	06:07 21:20	07:09 18:04	08:17 15:49	08:50 15:43	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 (C12) 20:46 (C15)	04:28 22:10	05:51 (C12) 20:56 (C15)	06:09 21:21	07:11 18:01	08:19 15:45	08:51 15:44	08:51 15:44
29	08:20 16:39	07:11 17:47	05:57 18:47	05:37 20:51	04:40 21:48	04:29 22:09	05:43 (C12) 20:46 (C15)	04:29 22:09	05:52 (C12) 20:56 (C15)	06:11 21:22	07:13 18:03	08:20 15:47	08:51 15:45	08:51 15:45
30	08:18 16:41	07:09 17:54	05:54 18:49	05:35 20:53	04:38 21:49	04:29 22:09	05:44 (C12) 20:45 (C15)	04:29 22:09	05:52 (C12) 20:55 (C15)	06:13 21:19	07:15 18:06	08:22 15:46	08:51 15:46	08:51 15:46
31	08:16 16:43	07:07 17:51	05:51 18:45	05:32 20:51	04:37 21:51	04:30 22:06	05:44 (C12) 20:45 (C15)	04:30 22:06	05:53 (C12) 20:55 (C15)	06:15 21:16	07:20 18:08	08:23 15:47	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					1604	1224	2002	231						
Sun reduction					0.57	0.56	0.49	0.50						
Oper. time red.					0.94	0.94	0.94	0.94						
Wind dir. red.					0.64	0.63	0.64	0.64						
Total reduction					0.34	0.33	0.30	0.30						
Total, real					549	406	593	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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Zvirgzdini - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (24)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:35	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:43
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:57	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:18 21:08	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:20	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:37 22:03	05:31 21:11	06:33 19:52	07:33 18:32	07:40 16:18	08:36 15:39
10	08:46 16:00	07:56 17:05	06:47 18:07	06:24 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:14	08:39 15:38
12	08:44 16:04	07:52 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:04	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:24 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:53 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:12 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:50 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:46	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Zilites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (97)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January				February		March		April				May				June	
1	08:51		13:15 (C13)	08:15	07:11				06:49				05:32		06:25 (C1)	04:36		
	15:48	22	13:37 (C13)	16:45	17:47				19:53				20:55	39	07:04 (C1)	21:53		
2	08:50		13:17 (C13)	08:13	07:08				06:46				05:30		06:25 (C1)	04:35		
	15:49	21	13:38 (C13)	16:47	17:50				19:55				20:57	40	07:05 (C1)	21:54		
3	08:50		13:17 (C13)	08:11	07:06				06:43				05:28		06:25 (C1)	04:34		
	15:51	20	13:37 (C13)	16:50	17:52				19:57				21:00	40	07:05 (C1)	21:55		
4	08:50		13:18 (C13)	08:09	07:03				06:41				05:26		06:25 (C1)	04:33		
	15:52	19	13:37 (C13)	16:52	17:54				19:59				21:02	40	07:05 (C1)	21:57		
5	08:49		13:20 (C13)	08:07	07:00				06:38				05:23		06:25 (C1)	04:32		
	15:53	17	13:37 (C13)	16:54	17:56				20:01				21:04	40	07:05 (C1)	21:58		
6	08:49		13:21 (C13)	08:05	06:58				06:35				05:21		06:25 (C1)	04:31		
	15:55	16	13:37 (C13)	16:56	17:58				20:03				21:06	40	07:05 (C1)	21:59		
7	08:48		13:22 (C13)	08:03	06:55				06:33				05:19		06:25 (C1)	04:30		
	15:56	14	13:36 (C13)	16:59	18:00				20:05				21:08	39	07:04 (C1)	22:00		
8	08:48		13:23 (C13)	08:00	06:53				06:30				05:17		06:25 (C1)	04:29		
	15:58	12	13:35 (C13)	17:01	18:03				20:08				21:10	39	07:04 (C1)	22:01		
9	08:47		13:26 (C13)	07:58	06:50				06:27				05:15		06:25 (C1)	04:28		
	15:59	8	13:34 (C13)	17:03	18:05				20:10				21:12	39	07:04 (C1)	22:02		
10	08:46			07:56	06:47				06:25				05:13		06:25 (C1)	04:28		
	16:01			17:05	18:07				20:12				21:14	38	07:03 (C1)	22:03		
11	08:45			07:54	06:45				06:22				05:10		06:25 (C1)	04:27		
	16:03			17:08	18:09				20:14				21:16	37	07:02 (C1)	22:04		
12	08:44			07:52	06:42				06:20				05:08		06:25 (C1)	04:27		
	16:04			17:10	18:11				20:16				21:18	37	07:02 (C1)	22:05		
13	08:43			07:49	06:39				06:17				05:06		06:26 (C1)	04:26		
	16:06			17:12	18:13				20:18				21:20	35	07:01 (C1)	22:06		
14	08:42			07:47	06:37				06:14				05:04		06:27 (C1)	04:26		
	16:08			17:14	18:15				20:20				21:22	34	07:01 (C1)	22:07		
15	08:41			07:45	06:34				06:12				05:02		06:28 (C1)	04:26		
	16:10			17:17	18:17				20:22				21:24	32	07:00 (C1)	22:07		
16	08:40			07:43	06:32				06:57 (C4)	06:09			05:01		06:28 (C1)	04:25		
	16:12			17:19	18:20	6	07:03 (C4)		20:24				21:25	31	06:59 (C1)	22:08		
17	08:39			07:40	06:29				06:54 (C4)	06:07			04:59		06:29 (C1)	04:25		
	16:14			17:21	18:22	11	07:05 (C4)		20:26				21:27	30	06:59 (C1)	22:08		
18	08:37			07:38	06:26				06:51 (C4)	06:04			04:57		06:30 (C1)	04:25		
	16:16			17:23	18:24	15	07:06 (C4)		20:28				21:29	27	06:57 (C1)	22:09		
19	08:36			07:35	06:23				06:49 (C4)	06:02			04:55		06:31 (C1)	04:25		
	16:18			17:25	18:26	19	07:08 (C4)		20:30				21:31	25	06:56 (C1)	22:09		
20	08:35			07:33	06:21				06:47 (C4)	05:59		06:40 (C1)	04:53		06:32 (C1)	04:25		
	16:20			17:28	18:28	21	07:08 (C4)		20:33	13	06:53 (C1)	21:33	23	06:55 (C1)	22:10			
21	08:33			07:31	06:18				06:46 (C4)	05:57		06:37 (C1)	04:52		06:33 (C1)	04:25		
	16:22			17:30	18:30	22	07:08 (C4)		20:35	19	06:56 (C1)	21:35	20	06:53 (C1)	22:10			
22	08:32			07:28	06:15				06:47 (C4)	05:54		06:35 (C1)	04:50		06:35 (C1)	04:25		
	16:24			17:32	18:32	21	07:08 (C4)		20:37	24	06:59 (C1)	21:36	17	06:52 (C1)	22:10			
23	08:30			07:26	06:13				06:46 (C4)	05:52		06:33 (C1)	04:48		06:37 (C1)	04:26		
	16:26			17:34	18:34	22	07:08 (C4)		20:39	27	07:00 (C1)	21:38	13	06:50 (C1)	22:10			
24	08:29			07:23	06:10				06:46 (C4)	05:49		06:31 (C1)	04:47		06:40 (C1)	04:26		
	16:28			17:37	18:36	21	07:07 (C4)		20:41	30	07:01 (C1)	21:40	7	06:47 (C1)	22:10			
25	08:27			07:21	06:07				06:46 (C4)	05:47		06:30 (C1)	04:45			04:26		
	16:30			17:39	18:38	19	07:05 (C4)		20:43	32	07:02 (C1)	21:42				22:10		
26	08:26			07:18	06:05				06:47 (C4)	05:44		06:28 (C1)	04:44			04:27		
	16:32			17:41	18:40	18	07:05 (C4)		20:45	34	07:02 (C1)	21:43				22:10		
27	08:24			07:16	06:02				06:47 (C4)	05:42		06:28 (C1)	04:42			04:27		
	16:34			17:43	18:43	16	07:03 (C4)		20:47	35	07:03 (C1)	21:45				22:10		
28	08:22			07:13	05:59				06:48 (C4)	05:39		06:27 (C1)	04:41			04:28		
	16:36			17:45	18:45	13	07:01 (C4)		20:49	37	07:04 (C1)	21:47				22:10		
29	08:20				06:57				07:52 (C4)	05:37		06:27 (C1)	04:39			04:28		
	16:39				19:47	6	07:58 (C4)		20:51	38	07:05 (C1)	21:48				22:10		
30	08:18				06:54				05:35			06:25 (C1)	04:38			04:29		
	16:41				19:49				20:53	39	07:04 (C1)	21:50				22:09		
31	08:17				06:51							04:37						
	16:43				19:51							21:51						
Potential sun hours	235			266	366				426			508				529		
Total, worst case		149			230				328			762						
Sun reduction		0.13			0.41				0.50			0.57						
Oper. time red.		0.94			0.94				0.94			0.94						
Wind dir. red.		0.64			0.64				0.65			0.65						
Total reduction		0.08			0.25				0.31			0.35						
Total, real		12			57				100			264						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Zilites - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (97)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28 36	06:36 (C1) 07:12 (C1) 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	04:31 22:09	05:17 21:26 38	06:35 (C1) 07:13 (C1) 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	04:32 22:08	05:19 21:24 38	06:35 (C1) 07:13 (C1) 20:09	07:21 18:48	07:27 16:31	08:28 15:43 8
4	04:33 22:07	05:21 21:22 39	06:35 (C1) 07:14 (C1) 20:06	07:23 18:46	07:29 16:29	08:29 15:42 11
5	04:34 22:07	05:23 21:19 39	06:34 (C1) 07:13 (C1) 20:03	07:25 18:43	07:31 16:27	08:31 15:42 14
6	04:35 22:06	05:25 21:17 40	06:34 (C1) 07:14 (C1) 20:01	07:27 18:40	07:33 16:25	08:32 15:41 16
7	04:36 22:05	05:27 21:15 40	06:34 (C1) 07:14 (C1) 19:58	07:29 18:38	07:36 16:23	08:34 15:40 17
8	04:37 22:04	05:29 21:13 40	06:34 (C1) 07:14 (C1) 19:55	07:32 18:35	07:38 16:21	08:35 15:40 19
9	04:38 22:03	05:31 21:11 40	06:34 (C1) 07:14 (C1) 19:53	07:34 18:32	07:40 16:19	08:37 15:39 20
10	04:39 22:02	05:33 21:08 40	06:33 (C1) 07:13 (C1) 19:50	07:36 18:30	07:42 16:17	08:38 15:39 21
11	04:41 22:01	05:35 21:06 40	06:33 (C1) 07:13 (C1) 19:47	07:38 18:27	07:44 16:15	08:39 15:38 21
12	04:42 22:00	05:37 21:04 39	06:34 (C1) 07:13 (C1) 19:45	07:40 18:25	07:46 16:13	08:40 15:38 23
13	04:43 21:59	05:39 21:01 38	06:34 (C1) 07:12 (C1) 19:42	07:42 18:22	07:49 16:11	08:42 15:38 23
14	04:45 21:58	05:41 20:59 38	06:34 (C1) 07:12 (C1) 19:39	07:44 18:19	07:51 16:09	08:43 15:38 24
15	04:46 21:57	05:43 20:57 36	06:35 (C1) 07:11 (C1) 19:37	07:46 18:17	07:53 16:07	08:44 15:38 24
16	04:48 21:55	05:45 20:54 36	06:35 (C1) 07:11 (C1) 19:34	07:48 18:14	07:55 16:06	08:45 15:38 24
17	04:49 21:54	05:47 20:52 34	06:35 (C1) 07:09 (C1) 19:31	07:50 18:12	07:57 16:04	08:46 15:38 24
18	04:51 21:52	05:49 20:50 32	06:36 (C1) 07:08 (C1) 19:29	07:52 18:09	07:59 16:02	08:46 15:38 24
19	04:52 21:51	05:51 20:47 29	06:37 (C1) 07:06 (C1) 19:26	07:55 18:07	08:01 16:01	08:47 15:38 25
20	04:54 21:49	05:53 20:45 27	06:38 (C1) 07:05 (C1) 19:23	07:57 18:04	08:03 15:59	08:48 15:38 25
21	04:56 21:48	05:55 20:42 23	06:40 (C1) 07:03 (C1) 19:20	07:59 18:02	08:05 15:58	08:48 15:39 25
22	04:57 21:46	05:57 20:40 19	06:42 (C1) 07:01 (C1) 19:18	08:01 17:59	08:07 15:56	08:49 15:39 25
23	04:59 21:45	05:59 20:37 12	06:45 (C1) 06:57 (C1) 19:15	08:03 17:57	08:09 15:55	08:50 15:40 25
24	05:01 21:43	06:01 20:35 24	07:03 19:12 20	08:05 17:55	08:11 15:53	08:50 15:40 25
25	05:03 21:41	06:03 20:32 27	07:05 19:10 16	08:07 17:52	08:13 15:52	08:50 15:41 24
26	05:04 21:39	06:05 20:29 28	07:07 19:07 13	08:09 17:50	08:15 15:51	08:51 15:42 24
27	05:06 21:38	06:07 20:27 30	07:09 19:04 8	08:11 17:46	08:17 16:47	08:51 15:43 24
28	05:08 21:36	06:09 20:24 32	07:11 19:02	08:13 16:45	08:19 15:48	08:51 15:44 24
29	05:10 21:34	06:11 20:22 33	07:13 18:59	08:15 16:43	08:21 15:47	08:51 15:44 23
30	05:12 21:32	06:13 20:19 35	07:15 18:56	08:17 16:40	08:22 15:46	08:51 15:45 23
31	05:14 21:30	06:15 20:17 35	07:17 20:17	08:19 16:38	08:24 15:47	08:51 15:47 22
Potential sun hours	529	469	385	324	247	216
Total, worst case	308	793	231			627
Sun reduction	0.49	0.50	0.43			0.07
Oper. time red.	0.94	0.94	0.94			0.94
Wind dir. red.	0.65	0.65	0.64			0.64
Total reduction	0.30	0.30	0.26			0.04
Total, real	93	241	59			26

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Zilusala - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (150)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:01	04:33 21:56	04:33 22:07	05:22 21:21	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:58	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:05	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:59	06:55 18:00	06:33 20:05	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:38	07:35 16:23	08:34 15:40
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:07	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:32	07:40 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:17	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:07 21:19	04:27 22:06	04:44 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:21	04:26 22:06	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:45 17:17	06:34 18:17	06:12 20:22	05:03 21:23	04:26 22:07	04:46 21:56	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:43 15:38
16	08:40 16:12	07:42 17:19	06:31 18:20	06:09 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:18	07:35 17:26	06:23 18:26	06:02 20:30	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:54 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:34	04:52 21:34	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:20	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:15 18:32	05:54 20:37	04:50 21:36	04:26 22:10	04:58 21:46	05:57 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:41	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:05 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:51	08:50 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:28 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:12 16:47	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	04:28 22:10	05:08 21:35	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:09	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:20 15:47	08:51 15:45
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:30	06:15 20:16		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Abeles - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (153)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:04	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
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:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:04	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:58	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:51	06:49 19:31	07:50 18:12	07:56 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:25	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:00 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:42	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

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
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:14 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:36 21:52	04:30 22:08	05:15 21:27	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:45
2	08:50 15:49	08:12 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:35 21:53	04:31 22:08	05:17 21:25	06:19 20:11	07:19 18:51	07:24 16:34	08:25 15:44
3	08:50 15:51	08:10 16:49	07:05 17:52	06:43 19:57	05:28 20:59	04:34 21:55	04:32 22:07	05:19 21:23	06:21 20:08	07:21 18:48	07:26 16:31	08:27 15:43
4	08:49 15:52	08:08 16:52	07:03 17:54	06:40 19:59	05:25 21:01	04:33 21:56	04:33 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:32 21:57	04:34 22:06	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:57 17:58	06:35 20:03	05:21 21:05	04:31 21:58	04:35 22:05	05:25 21:17	06:27 20:00	07:27 18:40	07:33 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	05:19 21:07	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:12	06:31 19:55	07:31 18:35	07:37 16:21	08:35 15:40
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:15 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	07:39 16:19	08:36 15:39
10	08:45 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:37 15:39
11	08:45 16:03	07:54 17:07	06:44 18:09	06:22 20:13	05:10 21:15	04:27 22:04	04:41 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:15	05:08 21:17	04:27 22:04	04:42 22:00	05:37 21:03	06:39 19:44	07:39 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19	04:26 22:05	04:43 21:58	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	08:42 16:08	07:47 17:14	06:36 18:15	06:14 20:20	05:04 21:21	04:26 22:06	04:45 21:57	05:41 20:59	06:43 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	08:41 16:10	07:44 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:26 22:07	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	07:52 16:07	08:43 15:38
16	08:39 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:07	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:54 16:06	08:44 15:38
17	08:38 16:14	07:40 17:21	06:29 18:21	06:07 20:26	04:59 21:27	04:25 22:08	04:49 21:53	05:47 20:51	06:49 19:31	07:50 18:12	07:56 16:04	08:45 15:38
18	08:37 16:16	07:37 17:23	06:26 18:23	06:04 20:28	04:57 21:29	04:25 22:08	04:51 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:50	05:51 20:47	06:53 19:25	07:54 18:07	08:01 16:01	08:47 15:38
20	08:34 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:32	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:47 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:34	04:25 22:09	04:56 21:47	05:55 20:42	06:57 19:20	07:58 18:02	08:05 15:57	08:48 15:39
22	08:31 16:24	07:28 17:32	06:15 18:32	05:54 20:36	04:50 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:00 17:59	08:07 15:56	08:48 15:39
23	08:30 16:26	07:25 17:34	06:12 18:34	05:51 20:38	04:48 21:38	04:26 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:49 15:40
24	08:28 16:28	07:23 17:36	06:10 18:36	05:49 20:40	04:47 21:39	04:26 22:10	05:01 21:42	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:49 15:40
25	08:27 16:30	07:20 17:38	06:07 18:38	05:47 20:42	04:45 21:41	04:26 22:10	05:03 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:44 21:43	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	08:23 16:34	07:15 17:43	06:02 18:42	05:42 20:47	04:42 21:44	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:16 15:49	08:50 15:43
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:09	05:08 21:35	06:09 20:24	07:11 19:01	07:13 16:45	08:18 15:48	08:50 15:44
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:43	08:20 15:47	08:50 15:44
30	08:18 16:41		06:54 19:48	05:35 20:53	04:38 21:49	04:29 22:09	05:12 21:31	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:46	08:50 15:45
31	08:16 16:43		06:51 19:51		04:37 21:51		05:14 21:29	06:15 20:16		07:20 16:38		08:50 15:47
Potential sun hours	236	266	366	426	507	528	529	469	384	324	248	217
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ergliš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (208)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

		January	February	March		April	May	June	July	August	September		October		November	December	
1	08:50 15:48	08:14 16:45	07:10 17:47			06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:27	06:17 20:14		07:17 18:53	22	17:57 (C3) 18:19 (C3)	07:22 16:35	08:24 15:44
2	08:50 15:49	08:12 16:47	07:08 17:49			06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:25	06:19 20:11		07:19 18:50	20	17:57 (C3) 18:17 (C3)	07:24 16:33	08:26 15:43
3	08:50 15:50	08:10 16:49	07:05 17:51			06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08		07:21 18:48	17	17:58 (C3) 18:15 (C3)	07:27 16:31	08:27 15:43
4	08:49 15:51	08:08 16:51	07:03 17:54			06:40 19:59	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06		07:23 18:45	13	18:01 (C3) 18:14 (C3)	07:29 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56			06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03		07:25 18:42	5	18:05 (C3) 18:10 (C3)	07:31 16:27	08:30 15:41
6	08:48 15:54	08:04 16:56	06:57 17:58			06:35 20:03	05:21 21:05	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:00		07:27 18:40			07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00			06:32 20:05	05:18 21:07	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58		07:29 18:37			07:35 16:23	08:33 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02			06:30 20:07	05:16 21:09	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55		07:31 18:35			07:37 16:20	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	10	17:24 (C3) 17:34 (C3)	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 (C3) 17:38 (C3)	06:24 20:11	05:12 21:13	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50		07:35 18:29			07:42 16:16	08:38 15:38
11	08:45 16:02	07:54 17:07	06:44 18:09	19	17:20 (C3) 17:39 (C3)	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	21	17:18 (C3) 17:39 (C3)	06:19 20:15	05:08 21:17	04:26 22:05	04:41 22:00	05:37 21:03	06:39 19:44		07:39 18:24			07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	23	17:17 (C3) 17:40 (C3)	06:17 20:18	05:06 21:19	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42		07:41 18:22			07:48 16:11	08:41 15:37
14	08:42 16:07	07:47 17:14	06:36 18:15	25	17:16 (C3) 17:41 (C3)	06:14 20:20	05:04 21:21	04:25 22:06	04:44 21:58	05:41 20:59	06:43 19:39		07:44 18:19			07:50 16:09	08:42 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	26	17:15 (C3) 17:41 (C3)	06:11 20:22	05:02 21:23	04:25 22:07	04:46 21:56	05:43 20:56	06:45 19:36		07:46 18:16			07:52 16:07	08:43 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	25	17:15 (C3) 17:40 (C3)	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34		07:48 18:14			07:55 16:05	08:44 15:37
17	08:38 16:13	07:40 17:21	06:28 18:21	26	17:15 (C3) 17:41 (C3)	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31		07:50 18:11			07:57 16:04	08:45 15:37
18	08:37 16:15	07:37 17:23	06:26 18:23	25	17:15 (C3) 17:40 (C3)	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28		07:52 18:09			07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:25	24	17:15 (C3) 17:39 (C3)	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:25	18:10 (C3)	07:54 18:06	5		08:01 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	06:20 18:28	22	17:16 (C3) 17:38 (C3)	05:59 20:32	04:53 21:33	04:25 22:09	04:54 21:49	05:53 20:44	06:55 19:23	18:05 (C3)	07:56 18:04	14		08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:29	06:18 18:30	21	17:16 (C3) 17:37 (C3)	05:56 20:34	04:51 21:34	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	18:03 (C3)	07:58 18:01	17		08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	18	17:17 (C3) 17:35 (C3)	05:54 20:36	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	18:01 (C3)	08:01 17:59	20		08:07 15:56	08:49 15:39
23	08:30 16:25	07:25 17:34	06:12 18:34	15	17:18 (C3) 17:33 (C3)	05:51 20:38	04:48 21:38	04:25 22:10	04:59 20:37	05:59 19:15	07:01 17:56	18:00 (C3)	08:03 17:56	22		08:09 15:54	08:49 15:39
24	08:28 16:27	07:23 17:36	06:10 18:36	8	17:22 (C3) 17:30 (C3)	05:49 20:40	04:46 21:40	04:25 22:10	06:01 21:43	07:03 20:34	08:05 19:12	17:59 (C3)	08:05 17:54	23		08:11 15:53	08:50 15:40
25	08:27 16:29	07:20 17:38	06:07 18:38			05:46 20:43	04:45 21:41	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	17:58 (C3)	07:07 16:52	24		08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:40	06:04 18:40			05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	17:57 (C3)	07:09 16:49	25		08:15 15:50	08:50 15:41
27	08:23 16:34	07:15 17:43	06:02 18:42			05:41 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	17:57 (C3)	07:11 16:47	25		08:17 15:49	08:50 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44			05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:35	06:09 20:24	07:11 19:01	17:56 (C3)	07:13 16:45	26		08:18 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46			05:37 20:51	04:39 21:48	04:28 22:09	05:09 21:33	06:11 20:21	07:13 18:58	17:56 (C3)	07:16 16:42	25		08:20 15:47	08:51 15:44
30	08:18 16:40		06:54 19:48			05:34 20:53	04:38 21:49	04:29 22:09	05:11 21:31	06:13 20:19	07:15 18:56	17:56 (C3)	07:18 16:40	24		08:22 15:45	08:51 15:45
31	08:16 16:42		06:51 19:50				04:36 21:51		05:13 21:29	06:15 20:16			07:20 16:38			08:51 15:46	
Potential sun hours	235	266	366			426	508	529	529	469	385		324		247	216	
Total, worst case				324							250		77				
Sun reduction				0.41							0.43		0.26				
Oper. time red.				0.94							0.94		0.94				
Wind dir. red.				0.65							0.65		0.65				
Total reduction				0.25							0.26		0.16				
Total, real				82							66		12				

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ergli - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (34)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:10 17:47	06:48 19:53	05:32 20:55	04:35 21:52	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	07:22 16:36	08:24 15:44
2	08:50 15:49	08:13 16:47	07:08 17:49	06:46 19:55	05:30 20:57	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:25 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:51	06:43 19:57	05:27 20:59	04:33 21:55	04:31 22:08	05:19 21:24	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:51	08:09 16:51	07:03 17:54	06:40 19:59	05:25 21:01	04:32 21:57	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	07:29 16:29	08:29 15:42
5	08:49 15:53	08:07 16:54	07:00 17:56	06:38 20:01	05:23 21:03	04:31 21:58	04:33 22:07	05:23 21:19	06:25 20:03	07:25 18:43	07:31 16:27	08:31 15:41
6	08:49 15:54	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:30 21:59	04:34 22:06	05:25 21:17	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:40
7	08:48 15:56	08:02 16:58	06:55 18:00	06:32 20:05	05:19 21:08	04:29 22:00	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	08:47 15:57	08:00 17:00	06:52 18:02	06:30 20:07	05:16 21:10	04:29 22:01	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:39
9	08:47 15:59	07:58 17:03	06:50 18:04	06:27 20:09	05:14 21:12	04:28 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:33 18:32	07:40 16:18	08:37 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	05:12 21:14	04:27 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	07:42 16:17	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:16	04:27 22:04	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	07:44 16:15	08:39 15:38
12	08:44 16:04	07:52 17:09	06:42 18:11	06:19 20:16	05:08 21:18	04:26 22:05	04:41 22:00	05:37 21:04	06:39 19:44	07:40 18:24	07:46 16:13	08:40 15:38
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:20	04:26 22:06	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	07:48 16:11	08:41 15:37
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:22	04:25 22:07	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	07:51 16:09	08:43 15:37
15	08:41 16:09	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23	04:25 22:07	04:46 21:57	05:43 20:57	06:45 19:36	07:46 18:17	07:53 16:07	08:44 15:37
16	08:40 16:11	07:42 17:18	06:31 18:19	06:09 20:24	05:00 21:25	04:25 22:08	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	07:55 16:05	08:45 15:37
17	08:39 16:13	07:40 17:21	06:29 18:21	06:06 20:26	04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	07:57 16:04	08:45 15:37
18	08:37 16:15	07:38 17:23	06:26 18:23	06:04 20:28	04:56 21:29	04:25 22:09	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	07:59 16:02	08:46 15:37
19	08:36 16:17	07:35 17:25	06:23 18:26	06:01 20:30	04:55 21:31	04:25 22:09	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	08:01 16:00	08:47 15:38
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33	04:25 22:10	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	04:51 21:35	04:25 22:10	04:55 21:48	05:55 20:42	06:57 19:20	07:59 18:01	08:05 15:57	08:48 15:38
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:37	04:49 21:36	04:25 22:10	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	08:07 15:56	08:49 15:39
23	08:30 16:25	07:26 17:34	06:13 18:34	05:51 20:39	04:48 21:38	04:25 22:10	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 15:39
24	08:29 16:27	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:25 22:10	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:29	07:21 17:38	06:07 18:38	05:46 20:43	04:45 21:42	04:26 22:10	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	08:13 15:51	08:50 15:41
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	08:15 15:50	08:51 15:41
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	08:17 15:49	08:51 15:42
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10	05:08 21:36	06:09 20:24	07:11 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:10	05:09 21:34	06:11 20:22	07:13 18:59	07:16 16:42	08:21 15:47	08:51 15:44
30	08:18 16:40		06:54 19:49	05:34 20:53	04:38 21:50	04:29 22:09	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	08:22 15:45	08:51 15:45
31	08:16 16:43		06:51 19:51		04:36 21:51		05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ives - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51	08:15	07:11	07:41 (C14)	06:49	05:33
	15:48	16:45	17:48	26 08:07 (C14)	19:53	20:55
2	08:51	08:13	07:08	07:40 (C14)	06:46	05:30
	15:50	16:48	17:50	27 08:07 (C14)	19:55	20:58
3	08:50	08:11	07:06	07:40 (C14)	06:44	05:28
	15:51	16:50	17:52	28 08:08 (C14)	19:57	21:00
4	08:50	08:09	07:03	07:40 (C14)	06:41	05:26
	15:52	16:52	17:54	27 08:07 (C14)	19:59	21:02
5	08:49	08:07	07:01	07:39 (C14)	06:38	05:24
	15:54	16:54	17:56	28 08:07 (C14)	20:01	21:04
6	08:49	08:05	06:58	07:40 (C14)	06:36	05:21
	15:55	16:57	17:58	27 08:07 (C14)	20:03	21:06
7	08:48	08:03	06:55	07:40 (C14)	06:33	05:19
	15:56	16:59	18:01	26 08:06 (C14)	20:06	21:08
8	08:48	08:01	06:53	07:40 (C14)	06:30	05:17
	15:58	17:01	18:03	24 08:04 (C14)	20:08	21:10
9	08:47	07:58	06:50	07:42 (C14)	06:28	05:15
	16:00	17:03	18:05	22 08:04 (C14)	20:10	21:12
10	08:46	07:56	06:48	07:43 (C14)	06:25	05:13
	16:01	17:05	18:07	19 08:02 (C14)	20:12	21:14
11	08:45	07:54	06:45	07:44 (C14)	06:22	05:11
	16:03	17:08	18:09	15 07:59 (C14)	20:14	21:16
12	08:44	07:52	06:42	07:48 (C14)	06:20	05:09
	16:05	17:10	18:11	8 07:56 (C14)	20:16	21:18
13	08:43	07:50	06:40		06:17	05:07
	16:06	17:12	18:13		20:18	21:20
14	08:42	07:47	06:37		06:15	05:05
	16:08	17:14	18:15		20:20	21:22
15	08:41	07:45	06:34		06:12	05:03
	16:10	17:17	18:18		20:22	21:24
16	08:40	07:43	06:32		06:09	05:01
	16:12	17:19	18:20		20:24	21:26
17	08:39	07:40	06:29		06:07	04:59
	16:14	17:21	18:22		20:26	21:27
18	08:38	07:38	06:26		06:04	04:57
	16:16	17:23	18:24		20:28	21:29
19	08:36	07:36	06:24		06:02	04:55
	16:18	17:26	18:26		20:31	21:31
20	08:35	07:33	06:21		05:59	04:53
	16:20	17:28	18:28		20:33	21:33
21	08:33	07:31	06:18		05:57	04:52
	16:22	17:30	18:30		20:35	21:35
22	08:32	07:28	06:16		05:54	04:50
	16:24	17:32	18:32		20:37	21:37
23	08:30	07:26	07:53 (C14)	06:13	05:52	04:48
	16:26	17:34	7 08:00 (C14)	18:34	20:39	21:38
24	08:29	07:23	07:50 (C14)	06:10	05:49	04:47
	16:28	17:37	12 08:02 (C14)	18:36	20:41	21:40
25	08:27	07:21	07:48 (C14)	06:08	05:47	04:45
	16:30	17:39	17 08:05 (C14)	18:39	20:43	21:42
26	08:26	07:18	07:45 (C14)	06:05	05:44	04:44
	16:32	17:41	21 08:06 (C14)	18:41	20:45	21:43
27	08:24	07:16	07:42 (C14)	06:02	05:42	04:42
	16:34	17:43	24 08:06 (C14)	18:43	20:47	21:45
28	08:22	07:13	07:42 (C14)	06:00	05:40	04:41
	16:37	17:45	25 08:07 (C14)	18:45	20:49	21:47
29	08:20			06:57	05:37	04:40
	16:39			19:47	20:51	21:48
30	08:19			06:54	05:35	04:38
	16:41			19:49	20:53	21:50
31	08:17			06:52		04:37
	16:43			19:51		21:51
Potential sun hours	235	266	366	426	508	529
Total, worst case		106	277	232		
Sun reduction		0.20	0.41	0.50		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.63	0.63	0.66		
Total reduction		0.12	0.24	0.31		
Total, real		12	67	71		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Ives - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (96)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30 22:09	05:16 21:28	06:17 20:14	06:47 (C13) 18:54	07:17 18:32 (C14)	07:23 16:36
2	04:31 22:09	05:18 21:26	06:19 20:11	06:49 (C13) 18:51	07:19 18:37 (C14)	07:25 16:34
3	04:32 22:08	05:20 21:24	06:21 20:09	06:51 (C13) 18:48	07:21 18:39 (C14)	07:27 16:32
4	04:33 22:07	05:22 21:22	06:23 20:06	06:53 (C13) 18:46	07:23 18:40 (C14)	07:29 16:30
5	04:34 22:07	05:24 21:20	06:25 20:04	06:55 (C13) 18:43	07:25 18:38 (C14)	07:31 16:27
6	04:35 22:06	05:25 21:17	06:27 20:01	06:57 (C13) 18:40	07:27 18:36 (C14)	07:33 16:25
7	04:36 22:05	05:27 21:15	06:29 19:58	06:59 (C13) 18:38	07:29 18:34 (C14)	07:35 16:23
8	04:37 22:04	05:29 21:13	06:31 19:56	07:01 (C13) 18:35	07:31 18:31 (C14)	07:37 16:21
9	04:38 22:03	05:31 21:11	06:33 19:53	07:03 (C13) 18:33	07:33 18:29 (C14)	07:39 16:19
10	04:40 22:02	05:33 21:08	06:35 19:50	07:05 (C13) 18:30	07:35 18:26 (C14)	07:41 16:17
11	04:41 22:01	05:35 21:06	06:37 19:48	07:07 (C13) 18:27	07:37 18:23 (C14)	07:43 16:15
12	04:42 22:00	05:37 21:04	06:39 19:45	07:09 (C13) 18:25	07:39 18:21 (C14)	07:45 16:13
13	04:44 21:59	05:39 21:02	06:41 19:42	07:11 (C13) 18:22	07:41 18:18 (C14)	07:47 16:11
14	04:45 21:58	05:41 20:59	06:43 19:39	07:13 (C13) 18:20	07:43 18:16 (C14)	07:49 16:10
15	04:46 21:57	05:43 20:57	06:45 19:37	07:15 (C13) 18:17	07:45 18:13 (C14)	07:51 16:08
16	04:48 21:55	05:45 20:54	06:47 19:34	07:17 (C13) 18:15	07:47 18:11 (C14)	07:53 16:06
17	04:49 21:54	05:47 20:52	06:49 19:31	07:19 (C13) 18:12	07:49 18:08 (C14)	07:55 16:04
18	04:51 21:52	05:49 20:50	06:51 19:29	07:21 (C13) 18:09	07:51 18:05 (C14)	07:57 16:03
19	04:53 21:51	05:51 20:47	06:53 19:26	07:23 (C13) 18:07	07:53 18:03 (C14)	07:59 16:01
20	04:54 21:49	05:53 20:45	06:55 19:23	07:25 (C13) 18:04	07:55 18:00 (C14)	08:01 15:59
21	04:56 21:48	05:55 20:42	06:57 19:21	07:27 (C13) 18:02	07:57 17:58 (C14)	08:03 15:58
22	04:58 21:46	05:57 20:40	06:59 19:18	07:29 (C13) 18:00	07:59 17:56 (C14)	08:05 15:56
23	04:59 21:45	05:59 20:37	07:01 (C13) 19:15	07:31 (C13) 17:57	08:01 (C13) 17:55	08:07 15:55
24	05:01 21:43	06:01 20:35	07:03 (C13) 19:12	07:33 (C13) 17:55	08:03 (C13) 17:53	08:09 15:53
25	05:03 21:41	06:03 20:32	07:05 (C13) 19:10	07:35 (C13) 17:52	08:05 (C13) 17:50	08:11 15:51
26	05:05 21:39	06:05 20:30	07:07 (C13) 19:07	07:37 (C13) 17:50	08:07 (C13) 17:48	08:13 15:49
27	05:06 21:38	06:07 20:27	07:09 (C13) 19:04	07:39 (C13) 17:48	08:09 (C13) 17:46	08:15 15:47
28	05:08 21:36	06:09 20:24	07:11 (C13) 19:02	07:41 (C13) 17:46	08:11 (C13) 17:44	08:17 15:45
29	05:10 21:34	06:11 20:22	07:13 (C13) 18:59	07:43 (C13) 17:44	08:13 (C13) 17:42	08:19 15:43
30	05:12 21:32	06:13 20:19	07:15 (C13) 18:56	07:45 (C13) 17:42	08:15 (C13) 17:40	08:21 15:41
31	05:14 21:30	06:15 20:17	07:17 (C13) 18:54	07:47 (C13) 17:40	08:17 (C13) 17:38	08:23 15:39
Potential sun hours	529	469	385	324	247	216
Total, worst case		213	20	388		
Sun reduction		0.50	0.43	0.26		
Oper. time red.		0.94	0.94	0.94		
Wind dir. red.		0.66	0.66	0.63		
Total reduction		0.31	0.26	0.15		
Total, real		65	5	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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Kirš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	07:37 (C14) 19:53	05:33 20:55	06:26 (C13) 21:53
2	08:50 15:50	08:13 16:48	07:08 17:50	07:35 (C14) 19:55	05:30 20:58	06:29 (C13) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	07:34 (C14) 19:57	05:28 21:00	06:34 (C13) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	07:32 (C14) 19:59	05:26 21:02	06:34 (C13) 21:57
5	08:49 15:54	08:07 16:54	07:01 17:56	07:31 (C14) 20:01	05:24 21:04	06:34 (C13) 21:58
6	08:49 15:55	08:05 16:57	06:58 17:58	07:31 (C14) 20:03	05:21 21:06	06:34 (C13) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	07:30 (C14) 20:06	05:19 21:08	06:34 (C13) 22:00
8	08:48 15:58	08:01 17:01	06:53 18:03	07:29 (C14) 20:08	05:17 21:10	06:34 (C13) 22:01
9	08:47 16:00	07:58 17:03	06:50 18:05	07:30 (C14) 20:10	05:15 21:12	06:34 (C13) 22:02
10	08:46 16:01	07:56 17:05	06:48 18:07	07:29 (C14) 20:12	05:13 21:14	06:34 (C13) 22:03
11	08:45 16:03	07:54 17:08	06:45 18:09	07:29 (C14) 20:14	05:11 21:16	06:34 (C13) 22:04
12	08:44 16:05	07:52 17:10	06:42 18:11	07:30 (C14) 20:16	05:09 21:18	06:34 (C13) 22:05
13	08:43 16:06	07:50 17:12	06:40 18:13	07:30 (C14) 20:18	05:07 21:20	06:34 (C13) 22:06
14	08:42 16:08	07:47 17:14	06:37 18:15	07:30 (C14) 20:20	05:05 21:22	06:34 (C13) 22:07
15	08:41 16:10	07:45 17:17	06:34 18:18	07:32 (C14) 20:22	05:03 21:24	06:34 (C13) 22:07
16	08:40 16:12	07:43 17:19	06:32 18:20	07:32 (C14) 20:24	05:01 21:25	06:34 (C13) 22:08
17	08:39 16:14	07:40 17:21	06:29 18:22	07:34 (C14) 20:26	04:59 21:27	06:34 (C13) 22:08
18	08:38 16:16	07:38 17:23	06:26 18:24	07:36 (C14) 20:28	04:57 21:29	06:34 (C13) 22:09
19	08:36 16:18	07:36 17:26	06:24 18:26	07:47 (C14) 20:31	04:55 21:31	06:34 (C13) 22:09
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	06:34 (C13) 22:10
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:34 (C13) 22:10
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	06:34 (C13) 22:10
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	06:34 (C13) 22:10
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:34 (C13) 22:10
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	06:34 (C13) 22:10
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	06:34 (C13) 22:10
27	08:24 16:34	07:16 17:43	07:45 (C14) 18:43	05:42 20:47	04:42 21:45	06:34 (C13) 22:10
28	08:22 16:37	07:13 17:45	07:40 (C14) 18:45	05:40 20:49	04:41 21:47	06:34 (C13) 22:10
29	08:20 16:39	07:11 17:43	07:54 (C14) 18:47	05:37 20:51	04:40 21:48	06:34 (C13) 22:10
30	08:19 16:41	07:10 17:42	07:54 (C14) 18:48	05:35 20:53	04:38 21:50	06:34 (C13) 22:10
31	08:17 16:43	07:09 17:41	07:54 (C14) 18:49	05:33 20:51	04:37 21:51	06:34 (C13) 22:09
Potential sun hours	235	266	366	426	508	529
Total, worst case		17	457	271	16	
Sun reduction		0.20	0.41	0.50	0.57	
Oper. time red.		0.94	0.94	0.94	0.94	
Wind dir. red.		0.62	0.62	0.65	0.65	
Total reduction		0.12	0.24	0.30	0.35	
Total, real		2	110	83	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)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Kirš i - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	July	August	September	October	November	December
1	04:30	05:16	06:17	07:17	08:09 (C14)	07:23
	22:09	21:28	20:14	18:54	29 08:38 (C14)	16:36
2	04:31	05:18	06:19	07:19	08:08 (C14)	07:25
	22:09	21:26	20:11	18:51	30 08:38 (C14)	16:34
3	04:32	05:20	06:21	07:21	08:07 (C14)	07:27
	22:08	21:24	20:09	18:48	31 08:38 (C14)	16:32
4	04:33	05:22	06:23	07:23	08:07 (C14)	07:29
	22:07	21:22	20:06	18:46	30 08:37 (C14)	16:30
5	04:34	05:23	06:25	07:25	08:06 (C14)	07:31
	22:07	21:20	20:04	18:43	31 08:37 (C14)	16:27
6	04:35	05:25	06:27	07:28	08:06 (C14)	07:33
	22:06	21:17	20:01	18:40	31 08:37 (C14)	16:25
7	04:36	05:27	06:29	07:30	08:06 (C14)	07:36
	22:05	21:15	19:58	18:38	30 08:36 (C14)	16:23
8	04:37	05:29	06:31	07:32	08:06 (C14)	07:38
	22:04	21:13	19:56	18:35	29 08:35 (C14)	16:21
9	04:38	05:31	06:33	07:34	08:07 (C14)	07:40
	22:03	21:11	19:53	18:33	28 08:35 (C14)	16:19
10	04:40	05:33	06:35	07:36	08:08 (C14)	07:42
	22:02	21:08	19:50	18:30	26 08:34 (C14)	16:17
11	04:41	05:35	06:37	07:38	08:08 (C14)	07:44
	22:01	21:06	7 06:44 (C13)	18:27	24 08:32 (C14)	16:15
12	04:42	05:37	06:39	07:40	08:09 (C14)	07:46
	22:00	21:04	13 06:46 (C13)	18:25	21 08:30 (C14)	16:13
13	04:44	05:39	06:41	07:42	08:11 (C14)	07:49
	21:59	21:02	16 06:48 (C13)	18:22	17 08:28 (C14)	16:11
14	04:45	05:41	06:43	07:44	08:14 (C14)	07:51
	21:58	20:59	18 06:49 (C13)	18:20	10 08:24 (C14)	16:10
15	04:46	05:43	06:45	07:46		07:53
	21:57	20:57	20 06:50 (C13)	18:17		16:08
16	04:48	05:45	06:47	07:48		07:55
	21:55	20:54	21 06:50 (C13)	18:15		16:06
17	04:49	05:47	06:49	07:50		07:57
	21:54	20:52	23 06:51 (C13)	18:12		16:04
18	04:51	05:49	06:51	07:52		07:59
	21:52	20:50	23 06:51 (C13)	18:09		16:03
19	04:53	05:51	06:53	07:55		08:01
	21:51	20:47	23 06:50 (C13)	18:07		16:01
20	04:54	05:53	06:55	07:57		08:03
	21:49	20:45	23 06:50 (C13)	18:04		15:59
21	04:56	05:55	06:57	07:59		08:05
	21:48	20:42	23 06:50 (C13)	18:02		15:58
22	04:58	05:57	06:59	08:01		08:07
	21:46	20:40	21 06:49 (C13)	18:00		15:56
23	04:59	05:59	07:01	08:03		08:09
	21:45	20:37	18 06:48 (C13)	17:57		15:55
24	05:01	06:01	07:03	08:05		08:11
	21:43	20:35	16 06:48 (C13)	17:55		15:53
25	05:03	06:03	07:05	08:22 (C14)		08:13
	21:41	20:32	12 06:46 (C13)	08:29 (C14)		15:52
26	05:05	06:05	07:07	08:18 (C14)		08:15
	21:39	20:30	9 06:45 (C13)	08:32 (C14)		15:51
27	05:06	06:07	07:09	08:15 (C14)		08:17
	21:38	20:27	4 06:42 (C13)	08:34 (C14)		15:50
28	05:08	06:09	07:11	08:13 (C14)		08:19
	21:36	20:24	19:02	08:36 (C14)		15:48
29	05:10	06:11	07:13	08:11 (C14)		08:21
	21:34	20:22	18:59	08:37 (C14)		15:47
30	05:12	06:13	07:15	08:10 (C14)		08:22
	21:32	20:19	18:56	08:37 (C14)		15:46
31	05:14	06:15		07:20		08:51
	21:30	20:17		16:38		15:47
Potential sun hours	529	469	385	324	247	216
Total, worst case		290	116		367	
Sun reduction		0.50	0.43		0.26	
Oper. time red.		0.94	0.94		0.94	
Wind dir. red.		0.65	0.62		0.62	
Total reduction		0.30	0.25		0.15	
Total, real		88	29	56		

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)		Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Kikaukas (kad. apz. 56960030117001) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (12)
Assumptions for shadow calculations Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:12	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:40	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:31 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:54	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Kikaukas (kad. apz. 56960030117008) - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (13)
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:56	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:51 15:49	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:09	05:18 21:26	06:19 20:12	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:08	05:22 21:22	06:23 20:06	07:24 18:46	07:29 16:30	08:29 15:42
5	08:49 15:53	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:23 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:56	06:58 17:58	06:36 20:04	05:21 21:06	04:31 21:59	04:35 22:06	05:25 21:18	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:27 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:40
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:59 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:03	04:38 22:04	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:39
10	08:46 16:01	07:56 17:05	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:39 22:03	05:33 21:09	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:27 22:04	04:41 22:02	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:47 16:13	08:41 15:38
13	08:43 16:06	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:26 22:06	04:43 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:14	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:09	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:46 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:26	04:26 22:08	04:48 21:55	05:45 20:55	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:28	04:25 22:09	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:29	04:57 21:29	04:25 22:09	04:51 21:53	05:49 20:50	06:51 19:29	07:53 18:09	07:59 16:03	08:47 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:10	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:38
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:33	04:53 21:33	04:25 22:10	04:54 21:50	05:53 20:45	06:55 19:23	07:57 18:04	08:03 15:59	08:48 15:39
21	08:34 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:25 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:49 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:31 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	04:26 22:11	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:11	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:53	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:26 22:11	05:03 21:41	06:03 20:32	07:05 19:10	08:07 17:52	08:13 15:52	08:51 15:41
26	08:26 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:44	04:27 22:11	05:05 21:40	06:05 20:30	07:07 19:07	08:10 17:50	08:15 15:51	08:51 15:42
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	04:27 22:10	05:06 21:38	06:07 20:27	07:09 19:04	08:12 17:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:45	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:25	07:11 19:02	08:14 17:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	08:16 17:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:54	04:38 21:50	04:29 22:10	05:12 21:32	06:13 20:19	07:15 18:56	08:18 17:41	08:23 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:21 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Lovani - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (65)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:53	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:23 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:58	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
3	08:50 15:51	08:11 16:50	07:06 17:52	06:44 19:57	05:28 21:00	04:34 21:55	04:32 22:08	05:20 21:24	06:21 20:09	07:21 18:48	07:27 16:32	08:28 15:43
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	04:33 21:57	04:33 22:07	05:22 21:22	06:23 20:06	07:23 18:46	07:29 16:30	08:29 15:43
5	08:49 15:54	08:07 16:54	07:01 17:56	06:38 20:01	05:24 21:04	04:32 21:58	04:34 22:07	05:24 21:20	06:25 20:04	07:26 18:43	07:31 16:27	08:31 15:42
6	08:49 15:55	08:05 16:57	06:58 17:59	06:36 20:03	05:21 21:06	04:31 21:59	04:35 22:06	05:26 21:17	06:27 20:01	07:28 18:40	07:34 16:25	08:32 15:41
7	08:48 15:57	08:03 16:59	06:55 18:01	06:33 20:06	05:19 21:08	04:30 22:00	04:36 22:05	05:28 21:15	06:29 19:58	07:30 18:38	07:36 16:23	08:34 15:41
8	08:48 15:58	08:01 17:01	06:53 18:03	06:30 20:08	05:17 21:10	04:30 22:01	04:37 22:04	05:29 21:13	06:31 19:56	07:32 18:35	07:38 16:21	08:35 15:40
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	04:29 22:02	04:38 22:03	05:31 21:11	06:33 19:53	07:34 18:33	07:40 16:19	08:37 15:40
10	08:46 16:01	07:56 17:06	06:48 18:07	06:25 20:12	05:13 21:14	04:28 22:03	04:40 22:02	05:33 21:08	06:35 19:50	07:36 18:30	07:42 16:17	08:38 15:39
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	04:28 22:04	04:41 22:01	05:35 21:06	06:37 19:48	07:38 18:27	07:44 16:15	08:39 15:39
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	04:27 22:05	04:42 22:00	05:37 21:04	06:39 19:45	07:40 18:25	07:46 16:13	08:40 15:38
13	08:43 16:07	07:50 17:12	06:40 18:13	06:17 20:18	05:07 21:20	04:27 22:06	04:44 21:59	05:39 21:02	06:41 19:42	07:42 18:22	07:49 16:11	08:42 15:38
14	08:42 16:08	07:47 17:15	06:37 18:16	06:15 20:20	05:05 21:22	04:26 22:07	04:45 21:58	05:41 20:59	06:43 19:39	07:44 18:20	07:51 16:10	08:43 15:38
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:24	04:26 22:07	04:47 21:57	05:43 20:57	06:45 19:37	07:46 18:17	07:53 16:08	08:44 15:38
16	08:40 16:12	07:43 17:19	06:32 18:20	06:10 20:24	05:01 21:25	04:26 22:08	04:48 21:55	05:45 20:54	06:47 19:34	07:48 18:15	07:55 16:06	08:45 15:38
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:26 22:08	04:50 21:54	05:47 20:52	06:49 19:31	07:50 18:12	07:57 16:04	08:46 15:38
18	08:38 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09	04:51 21:52	05:49 20:50	06:51 19:29	07:53 18:10	07:59 16:03	08:46 15:38
19	08:36 16:18	07:36 17:26	06:24 18:26	06:02 20:31	04:55 21:31	04:25 22:09	04:53 21:51	05:51 20:47	06:53 19:26	07:55 18:07	08:01 16:01	08:47 15:39
20	08:35 16:20	07:33 17:28	06:21 18:28	06:21 20:33	05:59 21:33	04:25 22:10	04:54 21:49	05:53 20:45	06:55 19:23	07:57 18:05	08:03 15:59	08:48 15:39
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	04:26 22:10	04:56 21:48	05:55 20:42	06:57 19:21	07:59 18:02	08:05 15:58	08:48 15:39
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:37	04:26 22:10	04:58 21:46	05:57 20:40	06:59 19:18	08:01 18:00	08:07 15:56	08:49 15:40
23	08:30 16:26	07:26 17:35	06:13 18:34	05:52 20:39	04:49 21:38	04:26 22:10	04:59 21:45	05:59 20:37	07:01 19:15	08:03 17:57	08:09 15:55	08:50 15:40
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	04:26 22:10	05:01 21:43	06:01 20:35	07:03 19:13	08:05 17:55	08:11 15:54	08:50 15:41
25	08:27 16:30	07:21 17:39	06:08 18:39	05:47 20:43	04:45 21:42	04:27 22:10	05:03 21:41	06:03 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:42
26	08:26 16:32	07:18 17:41	06:05 18:41	05:45 20:45	04:44 21:43	04:27 22:10	05:05 21:39	06:05 20:30	07:07 19:07	07:10 16:50	08:15 15:51	08:51 15:42
27	08:24 16:35	07:16 17:43	06:02 18:43	05:42 20:47	04:43 21:45	04:28 22:10	05:07 21:38	06:07 20:27	07:09 19:04	07:12 16:48	08:17 15:50	08:51 15:43
28	08:22 16:37	07:13 17:46	06:00 18:45	05:40 20:49	04:41 21:47	04:28 22:10	05:08 21:36	06:09 20:24	07:11 19:02	07:14 16:45	08:19 15:48	08:51 15:44
29	08:20 16:39		06:57 19:47	05:37 20:51	04:40 21:48	04:29 22:10	05:10 21:34	06:11 20:22	07:13 18:59	07:16 16:43	08:21 15:47	08:51 15:45
30	08:19 16:41		06:54 19:49	05:35 20:53	04:39 21:50	04:30 22:09	05:12 21:32	06:13 20:19	07:15 18:56	07:18 16:41	08:22 15:46	08:51 15:46
31	08:17 16:43		06:52 19:51		04:37 21:51		05:14 21:30	06:15 20:17		07:20 16:38		08:51 15:47
Potential sun hours	235	266	366	426	508	528	529	469	384	324	248	216
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker	(WTG causing flicker first time)
	Sun set (hh:mm)	Last time (hh:mm) with flicker	(WTG causing flicker last time)

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Udensrozes - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (185)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June	July	August	September	October	November	December
1	08:50 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	04:36 21:52	04:30 22:09	05:16 21:28	06:17 20:14	07:17 18:54	07:22 16:36	08:24 15:45
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	04:35 21:54	04:31 22:08	05:18 21:26	06:19 20:11	07:19 18:51	07:25 16:34	08:26 15:44
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:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Udri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (186)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

	January	February	March	April	May	June
1	08:51 15:48	08:15 16:45	07:11 17:48	06:49 19:53	05:33 20:55	06:35 (C16) 21:52
2	08:50 15:50	08:13 16:48	07:08 17:50	06:46 19:55	05:30 20:57	06:36 (C16) 21:54
3	08:50 15:51	08:11 16:50	07:06 17:52	06:43 19:57	05:28 20:59	06:38 (C16) 21:55
4	08:50 15:52	08:09 16:52	07:03 17:54	06:41 19:59	05:26 21:02	06:40 (C16) 21:56
5	08:49 15:54	08:07 16:54	07:00 17:56	06:38 20:01	05:24 21:04	06:45 (C16) 21:58
6	08:49 15:55	08:05 16:56	06:58 17:58	06:35 20:03	05:21 21:06	06:47 (C16) 21:59
7	08:48 15:56	08:03 16:59	06:55 18:01	06:33 20:05	05:19 21:08	06:47 (C16) 21:59
8	08:47 15:58	08:00 17:01	06:53 18:03	06:30 20:08	05:17 21:10	06:47 (C16) 21:58
9	08:47 16:00	07:58 17:03	06:50 18:05	06:28 20:10	05:15 21:12	06:47 (C16) 21:58
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:12	05:13 21:14	06:47 (C16) 21:58
11	08:45 16:03	07:54 17:08	06:45 18:09	06:22 20:14	05:11 21:16	06:47 (C16) 21:58
12	08:44 16:05	07:52 17:10	06:42 18:11	06:20 20:16	05:09 21:18	06:47 (C16) 21:58
13	08:43 16:06	07:49 17:12	06:40 18:13	06:17 20:18	05:07 21:20	06:47 (C16) 21:58
14	08:42 16:08	07:47 17:14	06:37 18:15	06:15 20:20	05:05 21:22	06:47 (C16) 21:58
15	08:41 16:10	07:45 17:17	06:34 18:18	06:12 20:22	05:03 21:23	06:47 (C16) 21:58
16	08:40 16:12	07:43 17:19	06:32 18:20	06:09 20:24	05:01 21:25	06:47 (C16) 21:58
17	08:39 16:14	07:40 17:21	06:29 18:22	06:07 20:26	04:59 21:27	06:47 (C16) 21:58
18	08:37 16:16	07:38 17:23	06:26 18:24	06:04 20:28	04:57 21:29	06:47 (C16) 21:58
19	08:36 16:18	07:35 17:26	06:24 18:26	06:02 20:30	04:55 21:31	06:47 (C16) 21:58
20	08:35 16:20	07:33 17:28	06:21 18:28	05:59 20:32	04:53 21:33	06:47 (C16) 21:58
21	08:33 16:22	07:31 17:30	06:18 18:30	05:57 20:35	04:52 21:35	06:47 (C16) 21:58
22	08:32 16:24	07:28 17:32	06:16 18:32	05:54 20:37	04:50 21:36	06:47 (C16) 21:58
23	08:30 16:26	07:26 17:34	06:13 18:34	05:52 20:39	04:48 21:38	06:47 (C16) 21:58
24	08:29 16:28	07:23 17:37	06:10 18:36	05:49 20:41	04:47 21:40	06:47 (C16) 21:58
25	08:27 16:30	07:21 17:39	06:07 18:38	05:47 20:43	04:45 21:42	06:47 (C16) 21:58
26	08:25 16:32	07:18 17:41	06:05 18:41	05:44 20:45	04:44 21:43	06:47 (C16) 21:58
27	08:24 16:34	07:16 17:43	06:02 18:43	05:42 20:47	04:42 21:45	06:47 (C16) 21:58
28	08:22 16:37	07:13 17:45	05:59 18:45	05:40 20:49	04:41 21:46	06:47 (C16) 21:58
29	08:20 16:39	07:11 17:47	05:57 19:47	05:37 20:51	04:40 21:48	06:47 (C16) 21:58
30	08:18 16:41	07:09 17:49	05:54 19:49	05:35 20:53	04:38 21:49	06:47 (C16) 21:58
31	08:17 16:43	07:08 17:51	05:51 19:51	05:32 20:51	04:37 21:51	06:47 (C16) 21:58
Potential sun hours	235	266	366	426	508	528
Total, worst case				454	72	652
Sun reduction				0.50	0.57	0.56
Oper. time red.				0.94	0.94	0.94
Wind dir. red.				0.66	0.66	0.67
Total reduction				0.31	0.35	0.35
Total, real				140	25	230

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

09/04/2024 19:39/4.0.531

SHADOW - Calendar

Shadow receptor: Udri - Shadow Receptor: 1.0 × 1.0 Azimuth: 0.0° Slope: 90.0° (186)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.01	1.91	4.85	7.09	9.29	9.83	8.40	7.53	5.47	2.70	0.68	0.49

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
425	448	518	446	469	751	755	902	1,169	1,037	801	535	8,256

Idle start wind speed: Cut in wind speed from power curve

July		August		September		October	November	December
1	04:30	05:21 (C15)	05:16	06:17	07:17	07:22	08:24	
	22:09	24 05:45 (C15)	21:28	20:14	18:54	16:36	15:45	
2	04:31	05:21 (C15)	05:18	06:19	07:19	07:25	08:26	
	22:08	23 05:44 (C15)	21:26	20:11	18:51	16:34	15:44	
3	04:32	05:22 (C15)	05:20	06:21	07:21	07:27	08:27	
	22:08	22 05:44 (C15)	21:24	20:09	18:48	16:32	15:43	
4	04:33	05:23 (C15)	05:22	06:23	07:23	07:29	08:29	
	22:07	20 05:43 (C15)	21:22	20:06	18:46	16:29	15:43	
5	04:34	05:24 (C15)	05:23	06:25	07:25	07:31	08:31	
	22:07	19 05:43 (C15)	21:19	20:03	18:43	16:27	15:42	
6	04:35	05:25 (C15)	05:25	06:27	07:27	07:33	08:32	
	22:06	17 05:42 (C15)	21:17	20:01	18:40	16:25	15:41	
7	04:36	05:26 (C15)	05:27	06:29	07:29	07:36	08:34	
	22:05	15 05:41 (C15)	21:15	19:58	18:38	16:23	15:40	
8	04:37	05:28 (C15)	05:29	06:31	07:32	07:38	08:35	
	22:04	12 05:40 (C15)	21:13	7 06:59 (C16)	19:55	18:35	16:21	15:40
9	04:38	05:30 (C15)	05:31	06:49 (C16)	06:33	07:34	07:40	08:36
	22:03	8 05:38 (C15)	21:11	13 07:02 (C16)	19:53	18:32	16:19	15:39
10	04:40	05:33	05:33	06:47 (C16)	06:35	07:36	07:42	08:38
	22:02	17 05:35	21:08	17 07:04 (C16)	19:50	18:30	16:17	15:39
11	04:41	05:35	05:35	06:44 (C16)	06:37	07:38	07:44	08:39
	22:01	21 05:37	21:06	21 07:05 (C16)	19:47	18:27	16:15	15:39
12	04:42	05:37	05:37	06:43 (C16)	06:39	07:40	07:46	08:40
	22:00	23 05:40 (C15)	21:04	23 07:06 (C16)	19:45	18:25	16:13	15:38
13	04:44	05:39	05:39	06:42 (C16)	06:41	07:42	07:48	08:41
	21:59	25 05:41	21:01	25 07:07 (C16)	19:42	18:22	16:11	15:38
14	04:45	05:41	05:41	06:41 (C16)	06:43	07:44	07:51	08:43
	21:58	27 05:43	20:59	27 07:08 (C16)	19:39	18:20	16:09	15:38
15	04:46	05:43	05:43	06:41 (C16)	06:45	07:46	07:53	08:44
	21:56	27 05:45	20:57	27 07:08 (C16)	19:37	18:17	16:08	15:38
16	04:48	05:45	05:45	06:40 (C16)	06:47	07:48	07:55	08:44
	21:55	29 05:47	20:54	29 07:09 (C16)	19:34	18:14	16:06	15:38
17	04:49	05:47	05:47	06:40 (C16)	06:49	07:50	07:57	08:45
	21:54	29 05:49	20:52	29 07:09 (C16)	19:31	18:12	16:04	15:38
18	04:51	05:49	05:49	06:38 (C16)	06:51	07:52	07:59	08:46
	21:52	30 05:51	20:49	30 07:08 (C16)	19:29	18:09	16:03	15:38
19	04:53	05:51	05:51	06:38 (C16)	06:53	07:55	08:01	08:47
	21:51	30 05:53	20:47	30 07:08 (C16)	19:26	18:07	16:01	15:38
20	04:54	05:53	05:53	06:38 (C16)	06:55	07:57	08:03	08:48
	21:49	30 05:55	20:45	30 07:08 (C16)	19:23	18:04	15:59	15:39
21	04:56	05:55	05:55	06:38 (C16)	06:57	07:59	08:05	08:48
	21:48	30 05:57	20:42	30 07:08 (C16)	19:20	18:02	15:58	15:39
22	04:58	05:57	05:57	06:38 (C16)	06:59	08:01	08:07	08:49
	21:46	30 05:59	20:40	30 07:08 (C16)	19:18	18:00	15:56	15:40
23	04:59	05:59	05:59	06:38 (C16)	07:01	08:03	08:09	08:49
	21:44	29 06:01	20:37	29 07:07 (C16)	19:15	17:57	15:55	15:40
24	05:01	06:01	06:01	06:39 (C16)	07:03	08:05	08:11	08:50
	21:43	27 06:03	20:35	27 07:06 (C16)	19:12	17:55	15:53	15:41
25	05:03	06:03	06:03	06:39 (C16)	07:05	07:07	08:13	08:50
	21:41	26 06:05	20:32	26 07:05 (C16)	19:10	16:52	15:52	15:41
26	05:05	06:05	06:05	06:40 (C16)	07:07	07:09	08:15	08:50
	21:39	24 06:07	20:29	24 07:04 (C16)	19:07	16:50	15:51	15:42
27	05:06	06:07	06:07	06:40 (C16)	07:09	07:12	08:17	08:51
	21:37	22 06:09	20:27	22 07:02 (C16)	19:04	16:48	15:50	15:43
28	05:08	06:09	06:09	06:42 (C16)	07:11	07:14	08:19	08:51
	21:36	18 06:11	20:24	18 07:00 (C16)	19:02	16:45	15:48	15:44
29	05:10	06:11	06:11	06:44 (C16)	07:13	07:16	08:21	08:51
	21:34	14 06:13	20:22	14 06:58 (C16)	18:59	16:43	15:47	15:45
30	05:12	06:13	06:13	06:47 (C16)	07:15	07:18	08:22	08:51
	21:32	7 06:15	20:19	7 06:54 (C16)	18:56	16:41	15:46	15:46
31	05:14	06:15	06:15			07:20	08:51	
	21:30	20:17	20:17			16:38	15:47	
Potential sun hours	529	469		384	324	248	216	
Total, worst case	160	535						
Sun reduction	0.49	0.50						
Oper. time red.	0.94	0.94						
Wind dir. red.	0.67	0.66						
Total reduction	0.31	0.31						
Total, real	50	164						

Table layout: For each day in each month the following matrix apply

Day in month	Sun rise (hh:mm)	Sun set (hh:mm)	Minutes with flicker	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	(WTG causing flicker first time)	(WTG causing flicker last time)
--------------	------------------	-----------------	----------------------	---------------------------------	--------------------------------	----------------------------------	---------------------------------