

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C1 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (75)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:51 12:38-13:10/32 15:48 10:18-11:20/62	08:15 16:45	07:11 08:07-08:13/6 08:15-08:31/16 17:47 07:37-07:55/18	06:49 19:53	05:32 06:19-07:18/59 20:55 06:00-06:04/4	04:36 21:52
2	08:50 12:40-13:11/31 15:49 10:19-11:21/62	08:13 08:43-08:45/2 16:47	07:08 07:34-07:55/21 17:50 08:18-08:28/10	06:46 19:55	05:30 05:58-06:06/8 20:57 06:20-07:17/57	04:35 21:54
3	08:50 12:40-13:10/30 10:38-11:21/43 15:50 10:19-10:37/18	08:11 08:41-08:48/7 16:50	07:06 07:34-07:56/22 17:52	06:43 19:57	05:28 05:56-06:08/12 20:59 06:21-07:17/56	04:33 21:55
4	08:50 12:40-13:10/30 10:38-11:21/43 15:52 10:20-10:37/17	08:09 08:39-08:50/11 16:52	07:03 07:33-07:56/23 17:54	06:41 07:20-07:33/13 19:59	05:25 05:54-06:08/14 21:02 06:23-07:16/53	04:32 21:57
5	08:49 12:42-13:11/29 10:39-11:22/43 15:53 10:22-10:37/15	08:07 08:37-08:51/14 16:54	07:00 07:32-07:56/24 17:56	06:38 07:15-07:35/20 20:01	05:23 05:52-06:09/17 21:04 06:24-07:16/52	04:32 21:58
6	08:49 12:42-13:11/29 10:40-11:23/43 15:55 10:23-10:37/14	08:05 08:34-08:51/17 16:56	06:58 07:33-07:56/23 17:58	06:35 07:13-07:38/25 20:03	05:21 05:50-06:09/19 21:06 06:25-07:15/50	04:31 21:59
7	08:48 12:43-13:11/28 10:40-11:23/43 15:56 10:24-10:36/12	08:03 08:32-08:52/20 16:58	06:55 07:32-07:56/24 18:00	06:33 07:10-07:39/29 20:05	05:19 05:48-06:10/22 21:08 06:25-07:14/49	04:30 22:00
8	08:47 12:44-13:11/27 10:40-11:23/43 15:58 10:25-10:36/11	08:00 08:32-08:53/21 17:01	06:53 07:32-07:55/23 18:03	06:30 07:08-07:40/32 20:07	05:17 05:46-06:10/24 21:10 06:25-07:13/48	04:29 22:01
9	08:47 12:45-13:10/25 10:41-11:24/43 15:59 10:27-10:34/7	07:58 08:31-08:53/22 17:03	06:50 07:33-07:54/21 18:05	06:27 07:07-07:41/34 20:10	05:15 05:44-06:10/26 21:12 06:25-07:11/46	04:28 22:02
10	08:46 12:46-13:10/24 16:01 10:41-11:24/43	07:56 08:31-08:54/23 17:05	06:47 07:34-07:53/19 18:07	06:25 07:05-07:41/36 20:12	05:12 05:42-06:09/27 21:14 06:26-07:10/44	04:28 22:03
11	08:45 12:48-13:10/22 16:03 10:42-11:25/43	07:54 08:32-08:54/22 17:07	06:45 07:34-07:51/17 18:09	06:22 07:05-07:42/37 20:14	05:10 05:41-06:09/28 21:16 06:26-07:08/42	04:27 22:04
12	08:44 12:49-13:10/21 16:04 10:43-11:25/42	07:52 08:21-08:28/7 17:10 08:31-08:53/22	06:42 07:37-07:49/12 18:11	06:20 07:03-07:42/39 20:16	05:08 05:40-06:08/28 21:18 06:27-07:06/39	04:27 22:05
13	08:43 12:50-13:08/18 16:06 10:43-11:25/42	07:49 08:18-08:53/35 17:12	06:39 07:40-07:45/5 18:13	06:17 07:00-07:43/43 20:18	05:06 05:40-06:08/28 21:20 06:27-07:03/36	04:26 22:06
14	08:42 12:53-13:07/14 16:08 10:44-11:25/41	07:47 08:15-08:52/37 17:14	06:37 07:37-07:49/12 18:15	06:14 06:54-07:42/48 20:20	05:04 05:41-06:08/27 21:22 06:29-06:59/30	04:26 22:07
15	08:41 12:56-13:06/10 16:10 10:45-11:26/41	07:45 08:13-08:52/39 17:16	06:34 07:37-07:49/12 18:17	06:12 06:52-07:43/51 20:22	05:02 05:41-06:07/26 21:23 06:30-06:55/25	04:25 22:07
16	08:40 10:45-11:25/40 16:12	07:43 08:10-08:50/40 17:19	06:31 07:37-07:49/12 18:19	06:09 06:35-07:42/67 20:24	05:00 05:41-06:06/25 21:25 06:30-06:53/23	04:25 22:08
17	08:39 10:46-11:26/40 16:14	07:40 08:08-08:49/41 17:21	06:29 07:37-07:49/12 18:22	06:07 06:33-07:42/69 20:26	04:59 05:42-06:06/24 21:27 06:32-06:53/21	04:25 22:08
18	08:37 10:46-11:25/39 16:15	07:38 08:05-08:37/32 17:23 08:38-08:45/7	06:26 07:37-07:49/12 18:24	06:04 06:30-07:41/71 20:28	04:57 05:42-06:04/22 21:29 06:34-06:50/16	04:25 22:09
19	08:36 10:46-11:25/39 16:17	07:35 08:03-08:38/35 17:25	06:23 07:37-07:49/12 18:26	06:02 06:28-07:41/73 20:30	04:55 05:42-06:03/21 21:31 06:35-06:48/13	04:25 22:09
20	08:35 10:48-11:25/37 16:19	07:33 08:01-08:38/37 17:28	06:21 07:37-07:49/12 18:28	05:59 06:25-07:40/75 20:32	04:53 05:44-06:01/17 21:33 06:40-06:45/5	04:25 22:10
21	08:33 10:49-11:25/36 16:22	07:31 08:01-08:39/38 17:30	06:18 07:37-07:49/12 18:30	05:57 06:23-07:40/77 20:35	04:51 05:44-05:56/12 21:35	04:25 22:10
22	08:32 10:49-11:24/35 16:24	07:28 08:00-08:38/38 17:32	06:15 07:37-07:49/12 18:32	05:54 06:21-07:39/78 20:37	04:50 05:46-05:55/9 21:36	04:25 22:10
23	08:30 10:50-11:23/33 16:26	07:26 08:00-08:38/38 17:34	06:13 07:37-07:49/12 18:34	05:52 06:18-07:38/80 20:39	04:48 05:50-05:53/3 21:38	04:26 22:10
24	08:29 10:52-11:23/31 16:28	07:23 08:00-08:37/37 17:36	06:10 07:37-07:49/12 18:36	05:49 06:18-07:37/79 20:41	04:47 05:42-06:04/22 21:40	04:26 22:10
25	08:27 10:53-11:22/29 16:30	07:21 08:01-08:36/35 17:39	06:07 07:37-07:49/12 18:38	05:47 06:18-07:36/78 20:43	04:45 05:42-06:04/22 21:42	04:26 22:10
26	08:25 10:55-11:21/26 16:32	07:18 08:01-08:36/35 17:41 07:45-07:48/3	06:05 07:37-07:49/12 18:40	05:44 06:17-07:34/77 20:45	04:44 05:42-06:04/22 21:43	04:27 22:10
27	08:24 10:57-11:20/23 16:34	07:16 08:02-08:34/32 17:43 07:42-07:51/9	06:02 07:37-07:49/12 18:42	05:42 06:17-07:32/75 20:47	04:42 05:42-06:04/22 21:45	04:27 22:10
28	08:22 10:59-11:18/19 16:36	07:13 08:04-08:34/30 17:45 07:40-07:54/14	05:59 07:37-07:49/12 18:45	05:39 06:18-07:31/73 20:49	04:41 05:42-06:04/22 21:47	04:28 22:10
29	08:20 11:02-11:15/13 16:38	07:11 08:04-08:34/30 17:47	05:57 07:37-07:49/12 19:47	05:37 06:18-07:28/70 20:51	04:39 05:42-06:04/22 21:48	04:28 22:10
30	08:18 16:41	07:09 08:04-08:34/30 17:49	05:54 07:37-07:49/12 19:49	05:35 06:18-07:24/66 20:53	04:38 05:42-06:04/22 21:50	04:29 22:09
31	08:17 16:43	07:07 08:04-08:34/30 17:51	05:51 07:37-07:49/12 19:51	05:33 06:18-07:24/66 20:55	04:37 05:42-06:04/22 21:51	04:29 22:09
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	1581	800	284	1528	1207	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C1 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (75)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 22:09	05:15 05:51-06:19/28 21:28 06:37-07:17/40	06:17 07:03-07:41/38 20:14	07:17 08:17-08:27/10 18:53	07:22 08:01-08:23/22 16:36	08:24 12:30-12:52/22 15:45 10:24-11:07/43
2	04:31 22:08	05:17 05:51-06:19/28 21:26 06:36-07:19/43	06:19 07:04-07:40/36 20:11	07:19 08:14-08:29/15 18:51	07:25 08:01-08:23/22 16:34	08:26 12:29-12:53/24 15:44 10:25-11:07/42
3	04:31 22:08	05:19 05:53-06:20/27 21:24 06:36-07:21/45	06:21 07:05-07:39/34 20:09	07:21 08:12-08:30/18 18:48	07:27 08:01-08:23/22 16:31	08:27 12:28-12:53/25 10:25-11:08/43 15:43 10:11-10:18/7
4	04:32 22:07	05:21 05:55-06:20/25 21:22 06:36-07:22/46	06:23 07:06-07:38/32 20:06	07:23 08:11-08:31/20 18:45	07:29 08:02-08:22/20 16:29	08:29 12:28-12:55/27 10:25-11:07/42 15:42 10:09-10:20/11
5	04:33 22:07	05:23 05:56-06:19/23 21:19 06:34-07:22/48	06:25 07:06-07:35/29 20:03	07:25 08:10-08:31/21 18:43	07:31 08:05-08:22/17 16:27	08:31 12:28-12:56/28 10:25-11:08/43 15:41 10:09-10:21/12
6	04:34 22:06	05:25 05:58-06:19/21 21:17 06:34-07:23/49	06:27 07:08-07:33/25 20:01	07:27 08:09-08:32/23 18:40	07:33 08:07-08:21/14 16:25	08:32 12:29-12:57/28 10:26-11:09/43 15:41 10:09-10:23/14
7	04:36 22:05	05:27 06:00-06:19/19 21:15 06:34-07:24/50	06:29 07:10-07:31/21 19:58	07:29 08:08-08:31/23 18:38	07:36 08:09-08:19/10 16:23	08:34 12:28-12:57/29 10:26-11:09/43 15:40 10:08-10:23/15
8	04:37 22:04	05:29 06:02-06:18/16 21:13 06:34-07:25/51	06:31 07:14-07:27/13 19:55	07:31 08:07-08:31/24 18:35	07:38 08:12-08:18/6 16:21	08:35 12:28-12:58/30 10:26-11:09/43 15:40 10:08-10:25/17
9	04:38 22:03	05:31 06:04-06:18/14 21:11 06:32-07:26/54	06:33 19:53	07:34 08:08-08:32/24 18:32	07:40 08:14-08:15/1 16:19	08:37 12:28-12:59/31 10:27-11:10/43 15:39 10:08-10:26/18
10	04:39 22:02	05:33 06:06-06:17/11 21:08 06:30-07:25/55	06:35 19:50	07:36 08:08-08:31/23 18:30	07:42 16:17	08:38 12:29-13:00/31 15:39 10:08-11:10/62
11	04:40 22:01	05:35 06:07-06:14/7 21:06 06:28-07:26/58	06:37 19:47	07:38 08:08-08:30/22 18:27 08:56-08:58/2	07:44 16:15	08:39 12:28-13:00/32 15:38 10:08-11:10/62
12	04:42 22:00	05:37 06:27-07:26/59 21:04 06:09-06:12/3	06:39 19:45	07:40 08:09-08:29/20 18:25 08:50-09:03/13	07:46 16:13	08:40 12:29-13:01/32 10:29-11:11/42 15:38 10:09-10:28/19
13	04:43 21:59	05:39 06:26-07:34/68 21:01	06:41 19:42	07:42 08:38-09:05/27 18:22 08:11-08:27/16	07:48 10:34-10:47/13 16:11	08:41 12:29-13:02/33 15:38 10:09-11:12/63
14	04:45 21:58	05:41 06:25-07:36/71 20:59	06:43 19:39	07:44 08:35-09:06/31 18:19 08:13-08:25/12	07:51 10:31-10:50/19 16:09	08:43 12:30-13:02/32 15:38 10:09-11:12/63
15	04:46 21:57	05:43 06:25-07:39/74 20:57	06:45 19:37	07:46 08:35-09:08/33 18:17 08:16-08:23/7	07:53 10:28-10:52/24 16:07	08:44 12:30-13:03/33 15:38 10:09-11:12/63
16	04:48 21:55	05:45 06:25-07:40/75 20:54	06:47 19:34	07:48 08:33-09:08/35 18:14	07:55 10:28-10:54/26 16:06	08:45 12:30-13:03/33 15:38 10:09-11:13/64
17	04:49 21:54	05:47 06:25-07:41/76 20:52	06:49 19:31	07:50 08:32-09:09/37 18:12	07:57 10:26-10:55/29 16:04	08:45 12:31-13:04/33 15:38 10:10-11:13/63
18	04:51 21:52	05:49 06:24-07:42/78 20:49	06:51 19:28	07:52 08:31-09:09/38 18:09	07:59 10:26-10:57/31 16:02	08:46 12:31-13:05/34 15:38 10:10-11:14/64
19	04:52 21:51	05:51 06:24-07:43/79 20:47	06:53 19:26	07:54 08:32-09:10/38 18:07	08:01 10:25-10:58/33 16:01	08:47 12:32-13:05/33 15:38 10:11-11:14/63
20	04:54 21:49	05:53 06:24-07:43/79 20:45	06:55 19:23	07:57 08:31-09:09/38 18:04	08:03 10:24-10:59/35 15:59	08:48 12:32-13:05/33 15:38 10:11-11:14/63
21	04:56 05:57-06:04/7 21:48	05:55 06:26-07:44/78 20:42	06:57 19:20	07:59 08:31-09:09/38 18:02	08:05 10:24-11:00/36 15:57	08:48 12:33-13:06/33 15:39 10:12-11:15/63
22	04:57 05:56-06:07/11 21:46	05:57 06:28-07:44/76 20:40	06:59 19:18	08:01 08:31-09:08/37 17:59	08:07 10:24-11:01/37 15:56	08:49 12:32-13:06/34 15:39 10:12-11:15/63
23	04:59 05:54-06:09/15 21:45	05:59 06:30-07:45/75 20:37	07:01 19:15	08:03 08:34-09:08/34 17:57	08:09 10:24-11:02/38 15:55	08:49 12:34-13:07/33 15:40 10:13-11:16/63
24	05:01 05:54-06:13/19 21:43 06:48-06:57/9	06:01 06:32-07:45/73 20:35	07:03 19:12	08:05 08:36-09:07/31 17:54 09:08-09:17/9	08:11 10:23-11:02/39 15:53	08:50 12:34-13:07/33 15:40 10:13-11:16/63
25	05:03 05:53-06:15/22 21:41 06:45-06:59/14	06:03 06:34-07:45/71 20:32	07:05 19:10	07:07 07:38-08:19/41 16:52	08:13 10:23-11:03/40 15:52	08:50 12:34-13:08/34 15:41 10:13-11:17/64
26	05:04 05:52-06:15/23 21:39 06:43-07:02/19	06:05 06:36-07:44/68 20:29	07:07 19:07	07:09 07:41-08:21/40 16:50	08:15 10:24-11:04/40 15:50	08:51 12:34-13:08/34 15:42 10:14-11:17/63
27	05:06 05:52-06:17/25 21:37 06:42-07:03/21	06:07 06:37-07:44/67 20:27	07:09 19:04	07:12 07:44-08:22/38 16:47	08:17 12:35-12:45/10 15:49 10:24-11:05/41	08:51 12:35-13:08/33 15:43 10:14-11:17/63
28	05:08 05:51-06:17/26 21:36 06:40-07:04/24	06:09 06:53-07:44/51 20:24 06:39-06:47/8	07:11 19:02	07:14 07:45-08:22/37 16:45	08:19 12:33-12:47/14 15:48 10:24-11:05/41	08:51 12:36-13:09/33 15:43 10:15-11:18/63
29	05:10 05:51-06:17/26 21:34 06:39-07:06/27	06:11 06:55-07:43/48 20:22 06:41-06:45/4	07:13 18:59	07:16 07:48-08:23/35 16:43	08:21 12:31-12:49/18 15:47 10:24-11:06/42	08:51 12:36-13:09/33 15:44 10:15-11:19/64
30	05:12 05:51-06:18/27 21:32 06:39-07:12/33	06:13 07:00-07:43/43 20:19	07:15 18:56	07:18 07:52-07:56/4 16:40 08:01-08:23/22	08:22 12:30-12:51/21 15:46 10:24-11:06/42	08:51 12:37-13:10/33 15:45 10:16-11:19/63
31	05:14 05:51-06:19/28 21:30 06:38-07:16/38	06:15 07:03-07:42/39 20:16		07:20 08:01-08:24/23 16:38		08:51 12:38-13:10/32 15:46 10:17-11:20/63
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	414	2121	228	959	803	2833

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C10 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (84)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:50 15:48	08:14 16:45	07:11 07:37-08:26/49 17:47	06:49 19:53	05:32 20:55	04:36 05:40-06:14/34 21:52
2	08:50 15:49	08:13 16:47	07:08 07:34-08:26/52 17:49	06:46 19:55	05:30 20:57	04:35 05:40-06:14/34 21:54
3	08:50 15:50	08:11 16:49	07:05 07:34-08:28/54 17:52	06:43 19:57	05:28 20:59	04:33 05:40-06:14/34 21:55
4	08:49 15:52	08:09 16:52	07:03 07:33-08:28/55 17:54	06:41 19:59	05:25 21:01	04:32 05:41-06:13/32 21:56
5	08:49 15:53	08:07 16:54	07:00 07:33-08:28/55 17:56	06:38 20:01	05:23 21:03	04:32 05:42-06:14/32 21:58
6	08:49 15:55	08:04 16:56	06:58 07:34-08:29/55 17:58	06:35 20:03	05:21 21:05	04:31 05:42-06:14/32 21:59
7	08:48 15:56	08:02 08:32-08:38/6 16:58	06:55 07:35-08:29/54 18:00	06:33 20:05	05:19 21:07	04:30 05:42-06:14/32 22:00
8	08:47 15:58	08:00 08:30-08:41/11 17:01	06:52 07:36-08:29/53 18:02	06:30 20:07	05:17 21:09	04:29 05:43-06:14/31 22:01
9	08:47 15:59	07:58 08:27-08:42/15 17:03	06:50 07:37-08:30/53 18:05	06:27 20:09	05:15 05:52-06:00/8 21:11	04:28 05:42-06:14/32 22:02
10	08:46 16:01	07:56 08:25-08:44/19 17:05	06:47 07:36-08:29/53 18:07	06:25 20:11	05:12 05:49-06:03/14 21:13	04:28 05:43-06:14/31 22:03
11	08:45 16:03	07:54 08:24-08:44/20 17:07	06:45 07:35-08:28/53 18:09	06:22 06:48-06:53/5 20:14	05:10 05:47-06:05/18 21:15	04:27 05:43-06:14/31 22:04
12	08:44 16:04	07:52 08:24-08:45/21 17:10	06:42 07:34-08:28/54 18:11	06:19 06:45-06:54/9 20:16	05:08 05:45-06:06/21 21:17	04:27 05:44-06:14/30 22:05
13	08:43 16:06	07:49 08:24-08:46/22 17:12	06:39 07:34-08:28/54 18:13	06:17 06:43-06:56/13 20:18	05:06 05:44-06:07/23 21:19	04:26 05:44-06:14/30 22:06
14	08:42 16:08	07:47 08:23-08:46/23 17:14	06:37 07:34-08:27/53 18:15	06:14 06:40-06:56/16 20:20	05:04 05:44-06:09/25 21:21	04:26 05:44-06:14/30 22:06
15	08:41 16:10	07:45 08:23-08:46/23 17:16	06:34 07:33-08:25/52 18:17	06:12 06:38-06:56/18 20:22	05:02 05:42-06:10/28 21:23	04:26 05:44-06:14/30 22:07
16	08:40 16:12	07:42 08:23-08:46/23 17:19	06:31 07:34-08:25/51 18:19	06:09 06:37-06:56/19 20:24	05:00 05:41-06:10/29 21:25	04:25 05:45-06:14/29 22:08
17	08:38 16:14	07:40 08:23-08:46/23 17:21	06:29 07:33-08:24/51 18:22	06:07 06:37-06:56/19 20:26	04:59 05:41-06:11/30 21:27	04:25 05:45-06:14/29 22:08
18	08:37 16:15	07:38 08:23-08:45/22 17:23	06:26 07:33-08:22/49 18:24	06:04 06:36-06:55/19 20:28	04:57 05:41-06:11/30 21:29	04:25 05:45-06:15/30 22:09
19	08:36 16:17	07:35 08:24-08:45/21 17:25	06:23 07:34-08:21/47 18:26	06:02 06:37-06:55/18 20:30	04:55 05:40-06:11/31 21:31	04:25 05:46-06:15/29 22:09
20	08:35 16:19	07:33 08:25-08:43/18 17:28	06:21 07:34-08:18/44 18:28	05:59 06:37-06:53/16 20:32	04:53 05:40-06:12/32 21:33	04:25 05:46-06:15/29 22:09
21	08:33 16:21	07:30 08:27-08:42/15 17:30	06:18 07:34-08:15/41 18:30	05:56 06:38-06:52/14 20:34	04:51 05:39-06:12/33 21:34	04:25 05:47-06:16/29 22:10
22	08:32 16:24	07:28 08:28-08:40/12 17:32	06:15 07:35-08:12/37 18:32	05:54 06:40-06:51/11 20:36	04:50 05:39-06:13/34 21:36	04:25 05:47-06:16/29 22:10
23	08:30 16:26	07:26 08:32-08:36/4 17:34	06:13 07:37-08:06/29 18:34	05:52 06:41-06:47/6 20:39	04:48 05:39-06:12/33 21:38	04:26 05:47-06:16/29 22:10
24	08:29 16:28	07:23 07:50-07:55/5 17:36	06:10 07:38-08:03/25 18:36	05:49 20:41	04:47 05:39-06:13/34 21:40	04:26 05:46-06:16/30 22:10
25	08:27 16:30	07:21 07:47-07:57/10 17:39	06:07 07:39-08:00/21 18:38	05:47 20:43	04:45 05:39-06:13/34 21:41	04:26 05:47-06:16/29 22:10
26	08:25 16:32	07:18 07:45-07:58/13 17:41	06:05 07:42-07:58/16 18:40	05:44 20:45	04:44 05:40-06:14/34 21:43	04:27 05:47-06:16/29 22:10
27	08:24 16:34	07:16 07:42-08:22/40 17:43	06:02 18:42	05:42 20:47	04:42 05:39-06:13/34 21:45	04:27 05:48-06:17/29 22:10
28	08:22 16:36	07:13 07:40-08:24/44 17:45	05:59 18:44	05:39 20:49	04:41 05:39-06:13/34 21:46	04:28 05:47-06:17/30 22:10
29	08:20 16:38		06:57 19:47	05:37 20:51	04:39 05:39-06:14/35 21:48	05:48-06:18/30 22:09
30	08:18 16:41		06:54 19:49	05:35 20:53	04:38 05:40-06:14/34 21:49	05:48-06:18/30 22:09
31	08:16 16:43		06:51 19:51		04:37 05:40-06:14/34 21:51	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	0	440	1210	183	662	915

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C10 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (84)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 05:47-06:18/31 22:09	05:15 05:56-06:16/20 21:28	06:17 06:47-06:52/5 20:14	07:17 08:14-09:08/54 18:53	07:22 07:55-08:13/18 16:36	08:24 15:45
2	04:31 05:48-06:18/30 22:08	05:17 05:58-06:15/17 21:26	06:19 20:11	07:19 08:14-09:07/53 18:51	07:24 07:57-08:11/14 16:34	08:26 15:44
3	04:32 05:48-06:19/31 22:08	05:19 06:00-06:13/13 21:23	06:21 20:08	07:21 08:14-09:07/53 18:48	07:27 08:00-08:10/10 16:31	08:27 15:43
4	04:32 05:48-06:19/31 22:07	05:21 06:05-06:08/3 21:21	06:23 20:06	07:23 08:14-09:07/53 18:45	07:29 08:02-08:07/5 16:29	08:29 15:42
5	04:33 05:48-06:20/32 22:06	05:23 21:19	06:25 20:03	07:25 08:14-09:06/52 18:43	07:31 16:27	08:30 15:41
6	04:35 05:48-06:20/32 22:06	05:25 21:17	06:27 20:01	07:27 08:12-09:06/54 18:40	07:33 16:25	08:32 15:41
7	04:36 05:48-06:21/33 22:05	05:27 21:15	06:29 19:58	07:29 08:10-09:05/55 18:37	07:35 16:23	08:34 15:40
8	04:37 05:48-06:21/33 22:04	05:29 21:13	06:31 19:55	07:31 08:09-09:04/55 18:35	07:38 16:21	08:35 15:40
9	04:38 05:48-06:21/33 22:03	05:31 21:10	06:33 19:53	07:33 08:08-09:03/55 18:32	07:40 16:19	08:36 15:39
10	04:39 05:48-06:21/33 22:02	05:33 21:08	06:35 19:50	07:35 08:08-09:03/55 18:30	07:42 16:17	08:38 15:39
11	04:40 05:48-06:21/33 22:01	05:35 21:06	06:37 19:47	07:38 08:08-09:01/53 18:27	07:44 16:15	08:39 15:38
12	04:42 05:49-06:22/33 22:00	05:37 21:04	06:39 19:45	07:40 08:09-09:00/51 18:24	07:46 16:13	08:40 15:38
13	04:43 05:48-06:22/34 21:59	05:39 21:01	06:41 19:42	07:42 08:11-08:58/47 18:22	07:48 16:11	08:41 15:38
14	04:45 05:48-06:22/34 21:58	05:41 20:59	06:43 19:39	07:44 08:13-08:56/43 18:19	07:50 16:09	08:42 15:38
15	04:46 05:48-06:22/34 21:56	05:43 20:57	06:45 19:36	07:46 08:16-08:53/37 18:17	07:53 16:07	08:43 15:38
16	04:48 05:49-06:23/34 21:55	05:45 20:54	06:47 19:34	07:48 08:18-08:30/12 18:14	07:55 16:06	08:44 15:38
17	04:49 05:48-06:23/35 21:54	05:47 20:52	06:49 08:32-08:45/13 19:31	07:50 08:20-08:28/8 18:12	07:57 16:04	08:45 15:38
18	04:51 05:49-06:23/34 21:52	05:49 20:49	06:51 08:27-08:47/20 19:28	07:52 08:22-08:26/4 18:09	07:59 16:02	08:46 15:38
19	04:52 05:49-06:23/34 21:51	05:51 20:47	06:53 08:25-08:49/24 19:26	07:54 09:01-09:09/8 18:07	08:01 16:01	08:47 15:38
20	04:54 05:49-06:23/34 21:49	05:53 06:46-06:54/8 20:44	06:55 08:22-08:51/29 19:23	07:56 08:58-09:12/14 18:04	08:03 15:59	08:48 15:38
21	04:56 05:49-06:23/34 21:48	05:55 06:44-06:56/12 20:42	06:57 08:21-08:56/35 19:20	07:59 08:56-09:13/17 18:02	08:05 15:57	08:48 15:39
22	04:57 05:50-06:23/33 21:46	05:57 06:42-06:57/15 20:39	06:59 08:19-08:59/40 19:18	08:01 08:55-09:14/19 17:59	08:07 15:56	08:49 15:39
23	04:59 05:50-06:22/32 21:44	05:59 06:41-06:58/17 20:37	07:01 08:18-09:01/43 19:15	08:03 08:54-09:15/21 17:57	08:09 15:55	08:49 15:40
24	05:01 05:50-06:22/32 21:43	06:01 06:41-06:59/18 20:34	07:03 08:17-09:03/46 19:12	08:05 08:53-09:16/23 17:54	08:11 15:53	08:50 15:40
25	05:03 05:50-06:21/31 21:41	06:03 06:40-06:59/19 20:32	07:05 08:16-09:04/48 19:09	07:07 07:53-08:15/22 16:52	08:13 15:52	08:50 15:41
26	05:04 05:51-06:21/30 21:39	06:05 06:39-06:58/19 20:29	07:07 08:15-09:05/50 19:07	07:09 07:53-08:16/23 16:50	08:15 15:50	08:50 15:42
27	05:06 05:52-06:21/29 21:37	06:07 06:38-06:58/20 20:27	07:09 08:15-09:06/51 19:04	07:11 07:53-08:16/23 16:47	08:17 15:49	08:51 15:43
28	05:08 05:52-06:20/28 21:35	06:09 06:39-06:57/18 20:24	07:11 08:14-09:06/52 19:01	07:14 07:52-08:15/23 16:45	08:19 15:48	08:51 15:43
29	05:10 05:53-06:20/27 21:33	06:11 06:41-06:57/16 20:22	07:13 08:13-09:06/53 18:59	07:16 07:53-08:16/23 16:43	08:20 15:47	08:51 15:44
30	05:12 05:54-06:19/25 21:32	06:13 06:43-06:56/13 20:19	07:15 08:14-09:08/54 18:56	07:18 07:53-08:15/22 16:40	08:22 15:46	08:51 15:45
31	05:14 05:56-06:18/22 21:30	06:15 06:45-06:54/9 20:16		07:20 07:54-08:13/19 16:38		08:51 15:47
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	981	237	563	1072	47	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C11 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (85)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:50 15:48	08:14 08:59-09:39/40 16:45	07:11 17:47	06:49 07:26-07:58/32 19:53	05:32 20:55	04:36 21:52
2	08:50 15:49	08:13 08:59-09:40/41 16:47	07:08 17:49	06:46 07:25-07:58/33 19:55	05:30 20:57	04:35 21:54
3	08:50 15:51	08:11 08:59-09:40/41 16:49	07:05 17:52	06:43 07:24-07:57/33 19:57	05:28 20:59	04:34 21:55
4	08:49 15:52	08:09 08:59-09:40/41 16:52	07:03 17:54	06:41 07:24-07:58/34 19:59	05:25 21:01	04:33 21:56
5	08:49 15:53	08:07 08:36-08:37/1 16:54 08:58-09:39/41	07:00 17:56	06:38 07:23-07:57/34 20:01	05:23 21:03	04:32 21:58
6	08:48 15:55	08:04 08:34-08:39/5 16:56 08:59-09:39/40	06:58 17:58	06:35 07:23-07:58/35 20:03	05:21 21:05	04:31 21:59
7	08:48 15:56	08:02 08:32-08:41/9 16:58 08:59-09:39/40	06:55 18:00	06:33 07:22-07:57/35 20:05	05:19 21:07	04:30 22:00
8	08:47 15:58	08:00 08:30-08:42/12 17:01 09:00-09:39/39	06:52 18:02	06:30 07:22-07:56/34 20:07	05:17 21:09	04:29 22:01
9	08:46 15:59	07:58 08:27-08:42/15 17:03 09:00-09:37/37	06:50 18:05	06:27 07:23-07:56/33 20:09	05:15 21:11	04:28 22:02
10	08:46 16:01	07:56 08:25-08:42/17 17:05 09:00-09:37/37	06:47 18:07	06:25 07:22-07:54/32 20:11	05:12 21:13	04:28 22:03
11	08:45 16:03	07:54 08:23-08:42/19 17:07 09:00-09:34/34	06:45 18:09	06:22 07:23-07:54/31 20:14	05:10 21:15	04:27 22:04
12	08:44 16:04	07:51 08:20-08:42/22 17:10 09:02-09:33/31	06:42 18:11	06:19 07:24-07:52/28 20:16	05:08 21:17	04:27 22:05
13	08:43 16:06	07:49 08:18-08:42/24 17:12 09:03-09:30/27	06:39 18:13	06:17 07:25-07:51/26 20:18	05:06 21:19	04:26 22:06
14	08:42 16:08	07:47 08:17-08:41/24 17:14 09:04-09:25/21	06:37 18:15	06:14 07:26-07:49/23 20:20	05:04 21:21	04:26 22:06
15	08:41 16:10	07:45 08:18-08:40/22 17:16 09:06-09:23/17	06:34 18:17	06:12 07:28-07:47/19 20:22	05:02 21:23	04:26 22:07
16	08:40 09:15-09:16/1 16:12	07:42 08:18-08:37/19 17:19 09:08-09:20/12	06:31 18:19	06:09 07:30-07:43/13 20:24	05:00 21:25	04:25 22:08
17	08:38 09:13-09:17/4 16:14	07:40 08:20-08:31/11 17:21	06:29 18:22	06:07 20:26	04:59 21:27	04:25 22:08
18	08:37 09:12-09:19/7 16:16	07:38 08:21-08:29/8 17:23	06:26 18:24	06:04 20:28	04:57 21:29	04:25 22:09
19	08:36 09:10-09:25/15 16:17	07:35 17:25	06:23 06:49-06:54/5 18:26	06:02 20:30	04:55 21:31	04:25 22:09
20	08:34 09:09-09:28/19 16:19	07:33 17:28	06:21 06:46-06:55/9 18:28	05:59 20:32	04:53 21:33	04:25 22:09
21	08:33 09:07-09:30/23 16:22	07:30 17:30	06:18 06:43-06:56/13 18:30	05:57 20:34	04:51 21:34	04:25 22:10
22	08:32 09:05-09:32/27 16:24	07:28 17:32	06:15 06:41-06:57/16 18:32	05:54 20:36	04:50 21:36	04:25 22:10
23	08:30 09:04-09:33/29 16:26	07:26 17:34	06:13 06:38-06:57/19 18:34	05:52 20:39	04:48 21:38	04:26 22:10
24	08:29 09:04-09:34/30 16:28	07:23 17:36	06:10 06:38-06:56/18 18:36	05:49 20:41	04:47 21:40	04:26 22:10
25	08:27 09:05-09:35/30 16:30	07:21 17:39	06:07 06:37-06:55/18 18:38	05:47 20:43	04:45 21:41	04:26 22:10
26	08:25 09:04-09:37/33 16:32	07:18 17:41	06:05 06:38-06:55/17 18:40	05:44 20:45	04:44 21:43	04:27 22:10
27	08:24 09:03-09:37/34 16:34	07:16 17:43	06:02 06:35-06:54/19 18:42	05:42 20:47	04:42 21:45	04:27 22:10
28	08:22 09:02-09:38/36 16:36	07:13 17:45	05:59 06:32-06:53/21 18:44	05:39 20:49	04:41 21:46	04:28 22:10
29	08:20 09:01-09:39/38 16:38		06:57 07:30-07:55/25 19:47	05:37 20:51	04:39 21:48	04:28 22:09
30	08:18 09:00-09:38/38 16:41		06:54 07:28-07:56/28 19:49	05:35 20:53	04:38 21:49	04:29 22:09
31	08:16 08:59-09:39/40 16:43		06:51 07:27-07:56/29 19:51		04:37 21:51	
Potential sun hours		235	266	426	508	528
Sum of minutes with flicker		404	747	237	475	0

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

Day in month	Sun rise (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C11 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (85)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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 07:22-07:53/31 20:14	07:17 18:53	07:22 07:55-08:12/17 16:36 08:30-09:06/36	08:24 15:45
2	04:31 22:08	05:17 21:26	06:19 07:21-07:53/32 20:11	07:19 18:51	07:24 07:57-08:11/14 16:34 08:29-09:07/38	08:26 15:44
3	04:32 22:08	05:19 21:23	06:21 07:21-07:54/33 20:08	07:21 18:48	07:27 08:00-08:11/11 16:31 08:28-09:07/39	08:27 15:43
4	04:32 22:07	05:21 21:21	06:23 07:19-07:53/34 20:06	07:23 18:45	07:29 08:02-08:10/8 16:29 08:29-09:09/40	08:29 15:42
5	04:33 22:06	05:23 21:19	06:25 07:18-07:53/35 20:03	07:25 18:43	07:31 08:04-08:09/5 16:27 08:28-09:09/41	08:30 15:41
6	04:35 22:06	05:25 21:17	06:27 07:18-07:53/35 20:01	07:27 18:40	07:33 08:07-08:08/1 16:25 08:29-09:10/41	08:32 15:41
7	04:36 22:05	05:27 21:15	06:29 07:18-07:52/34 19:58	07:29 18:37	07:35 08:29-09:10/41 16:23	08:33 15:40
8	04:37 22:04	05:29 21:13	06:31 07:18-07:52/34 19:55	07:31 18:35	07:38 08:29-09:10/41 16:21	08:35 15:40
9	04:38 22:03	05:31 21:10	06:33 07:18-07:52/34 19:53	07:33 18:32	07:40 08:30-09:10/40 16:19	08:36 15:39
10	04:39 22:02	05:33 21:08	06:35 07:18-07:51/33 19:50	07:35 18:30	07:42 08:30-09:10/40 16:17	08:38 15:39
11	04:41 22:01	05:35 21:06	06:37 07:18-07:50/32 19:47	07:38 18:27	07:44 08:31-09:11/40 16:15	08:39 15:38
12	04:42 22:00	05:37 21:04	06:39 07:19-07:49/30 19:45	07:40 18:24	07:46 08:32-09:10/38 16:13	08:40 15:38
13	04:43 21:59	05:39 21:01	06:41 07:20-07:48/28 19:42	07:42 18:22	07:48 08:33-09:11/38 16:11	08:41 15:38
14	04:45 21:58	05:41 20:59	06:43 07:21-07:46/25 19:39	07:44 18:19	07:50 08:34-09:10/36 16:09	08:42 15:38
15	04:46 21:56	05:43 20:57	06:45 07:22-07:44/22 19:36	07:46 18:17	07:53 08:35-09:09/34 16:07	08:43 15:38
16	04:48 21:55	05:45 20:54	06:47 07:24-07:43/19 19:34	07:48 18:14	07:55 08:37-09:10/33 16:06	08:44 15:38
17	04:49 21:54	05:47 20:52	06:49 07:27-07:44/17 19:31	07:50 18:12	07:57 08:38-09:09/31 16:04	08:45 15:38
18	04:51 21:52	05:49 20:49	06:51 07:26-07:44/18 19:28	07:52 18:09	07:59 08:38-09:08/30 16:02	08:46 15:38
19	04:52 21:51	05:51 20:47	06:53 07:25-07:44/19 19:26	07:54 18:07	08:01 08:39-09:08/29 16:01	08:47 15:38
20	04:54 21:49	05:53 20:44	06:55 07:24-07:42/18 19:23	07:56 18:04	08:03 08:40-09:07/27 15:59	08:48 15:38
21	04:56 21:48	05:55 20:42	06:57 07:25-07:42/17 19:20	07:59 18:02	08:05 08:42-09:05/23 15:57	08:48 15:39
22	04:57 21:46	05:57 20:39	06:59 07:27-07:41/14 19:18	08:01 17:59	08:07 08:45-09:04/19 15:56	08:49 15:39
23	04:59 21:44	05:59 20:37	07:01 07:29-07:39/10 19:15	08:03 08:54-08:57/3 17:57	08:09 08:47-09:02/15 15:55	08:49 15:40
24	05:01 21:43	06:01 20:34	07:03 07:31-07:38/7 19:12	08:05 08:51-09:00/9 17:54	08:11 08:49-08:56/7 15:53	08:50 15:40
25	05:03 21:41	06:03 20:32	07:05 07:33-07:34/1 19:09	07:07 07:49-08:01/12 16:52 08:41-08:47/6	08:13 08:51-08:55/4 15:52	08:50 15:41
26	05:04 21:39	06:05 20:29	07:07 19:07	07:09 07:48-08:08/20 16:50 08:37-08:52/15	08:15 08:53-08:54/1 15:50	08:50 15:42
27	05:06 21:37	06:07 07:31-07:45/14 20:27	07:09 19:04	07:11 07:47-08:10/23 16:47 08:35-08:53/18	08:17 15:49	08:50 15:43
28	05:08 21:35	06:09 07:28-07:48/20 20:24	07:11 19:01	07:14 07:47-08:10/23 16:45 08:33-08:55/22	08:19 15:48	08:51 15:44
29	05:10 21:33	06:11 07:26-07:50/24 20:22	07:13 18:59	07:16 07:48-08:12/24 16:43 08:32-09:01/29	08:20 15:47	08:51 15:44
30	05:12 21:32	06:13 07:25-07:51/26 20:19	07:15 18:56	07:18 07:50-08:12/22 16:40 08:31-09:03/32	08:22 15:46	08:51 15:45
31	05:14 21:30	06:15 07:23-07:52/29 20:16		07:20 07:52-08:11/19 16:38 08:30-09:04/34		08:51 15:47
Potential sun hours		529	469	385	324	216
Sum of minutes with flicker		0	113	612	311	858
						0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C12 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (86)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January		February		March		April		May		June	
1	08:50	09:30-09:54/24	08:14		07:10	07:47-08:15/28	06:49		05:32	20:04-20:21/17	04:36	21:06-21:14/8
	15:48		16:45		17:47	07:37-07:41/4	19:53		20:55		21:52	05:47-06:02/15
2	08:50	09:29-09:54/25	08:12		07:08	07:46-08:15/29	06:46		05:30	20:04-20:21/17	04:35	21:06-21:15/9
	15:49		16:47		17:49	07:34-07:42/8	19:55		20:57		21:54	05:48-06:01/13
3	08:50	09:29-09:55/26	08:11		07:05	07:46-08:15/29	06:43		05:28	20:05-20:21/16	04:34	21:05-21:16/11
	15:51		16:50		17:52	07:32-07:43/11	19:57		20:59		21:55	05:49-06:00/11
4	08:49	09:28-09:55/27	08:09		07:03	07:46-08:15/29	06:41		05:25	20:06-20:20/14	04:33	21:05-21:17/12
	15:52		16:52		17:54	07:29-07:43/14	19:59		21:01		21:56	05:51-05:58/7
5	08:49	09:27-09:55/28	08:06		07:00	07:45-08:14/29	06:38		05:23	20:07-20:19/12	04:32	21:06-21:19/13
	15:53		16:54		17:56	07:26-07:43/17	20:01		21:03		21:57	05:54-05:57/3
6	08:48	09:28-09:57/29	08:04		06:58	07:46-08:14/28	06:35		05:21	20:08-20:17/9	04:31	21:05-21:20/15
	15:55		16:56		17:58	07:27-07:43/16	20:03		21:05	05:51-05:57/6	21:59	
7	08:48	09:28-09:57/29	08:02		06:55	07:46-08:12/26	06:33		05:19	20:11-20:14/3	04:30	21:05-21:20/15
	15:56		16:58		18:00	07:27-07:42/15	20:05		21:07	05:48-06:00/12	22:00	05:05-05:06/1
8	08:47	09:28-09:58/30	08:00		06:52	07:47-08:11/24	06:30		05:17	20:35-20:36/1	04:29	21:06-21:22/16
	15:58		17:01		18:02	07:27-07:41/14	20:07		21:09	05:46-06:02/16	22:01	05:05-05:08/3
9	08:46	09:28-09:58/30	07:58		06:50	07:48-08:10/22	06:27		05:15	20:34-20:38/4	04:28	21:05-21:22/17
	15:59		17:03		18:05	07:29-07:40/11	20:09		21:11	05:44-06:03/19	22:02	05:04-05:09/5
10	08:46	09:29-09:59/30	07:56		06:47	07:49-08:07/18	06:25		05:12	20:32-20:40/8	04:28	21:06-21:23/17
	16:01		17:05		18:07	07:31-07:36/5	20:11		21:13	05:42-06:04/22	22:03	05:04-05:10/6
11	08:45	09:29-09:59/30	07:54		06:45	07:51-08:04/13	06:22		05:10	20:32-20:41/9	04:27	21:06-21:24/18
	16:03		17:07		18:09		20:14		21:15	05:40-06:04/24	22:04	05:03-05:10/7
12	08:44	09:28-09:59/31	07:51		06:42		06:19		05:08	20:31-20:43/12	04:27	21:06-21:25/19
	16:04		17:10		18:11		20:16		21:17	05:38-06:05/27	22:05	05:03-05:11/8
13	08:43	09:29-10:00/31	07:49		06:39		06:17		05:06	20:30-20:45/15	04:26	21:07-21:26/19
	16:06		17:12		18:13		20:18		21:19	05:36-06:05/29	22:06	05:03-05:12/9
14	08:42	09:29-10:00/31	07:47		06:37		06:14		05:04	20:30-20:46/16	04:26	21:06-21:26/20
	16:08		17:14		18:15		20:20		21:21	05:36-06:06/30	22:06	05:03-05:13/10
15	08:41	09:29-10:00/31	07:45		06:34		06:12		05:02	20:31-20:48/17	04:26	21:06-21:26/20
	16:10		17:16		18:17		20:22		21:23	05:36-06:06/30	22:07	05:02-05:13/11
16	08:40	09:30-10:00/30	07:42		06:31		06:09		05:00	20:31-20:48/17	04:25	21:07-21:27/20
	16:12		17:19		18:19		20:24		21:25	05:36-06:06/30	22:08	05:02-05:13/11
17	08:38	09:30-10:00/30	07:40		06:29		06:07		04:59	20:30-20:47/17	04:25	21:07-21:28/21
	16:14		17:21		18:21		20:26		21:27	05:38-06:07/29	22:08	05:02-05:14/12
18	08:37	09:31-10:00/29	07:38		06:26		06:04		04:57	20:31-20:48/17	04:25	21:07-21:28/21
	16:16		17:23		18:24		20:28		21:29	05:38-06:06/28	22:09	05:02-05:14/12
19	08:36	09:31-10:00/29	07:35		06:23		06:02		04:55	20:31-20:47/16	04:25	21:07-21:28/21
	16:18		17:25		18:26		20:30		21:31	05:38-06:06/28	22:09	05:02-05:14/12
20	08:34	09:31-09:59/28	07:33		06:21		05:59		04:53	20:32-20:47/15	04:25	21:07-21:29/22
	16:20		17:28		18:28		20:32		21:33	05:40-06:06/26	22:09	05:02-05:14/12
21	08:33	09:33-09:59/26	07:30		06:18		05:57		04:52	20:33-20:46/13	04:25	21:08-21:29/21
	16:22		17:30		18:30		20:34		21:34	05:40-06:06/26	22:10	05:03-05:15/12
22	08:32	09:33-09:58/25	07:28	07:59-08:05/6	06:15		05:54		04:50	20:34-20:46/12	04:25	21:09-21:30/21
	16:24		17:32		18:32		20:36		21:36	05:41-06:06/25	22:10	05:03-05:15/12
23	08:30	09:34-09:57/23	07:26	07:55-08:09/14	06:13		05:52		04:48	20:35-20:44/9	04:26	21:08-21:29/21
	16:26		17:34		18:34		20:39		21:38	05:42-06:06/24	22:10	05:03-05:15/12
24	08:28	09:35-09:54/19	07:23	07:53-08:11/18	06:10		05:49		04:47	20:37-20:43/6	04:26	21:08-21:29/21
	16:28		17:36		18:36		20:41		21:40	05:42-06:05/23	22:10	05:04-05:16/12
25	08:27	09:36-09:51/15	07:21	07:50-08:12/22	06:07		05:47	20:08-20:11/3	04:45	05:42-06:05/23	04:26	21:09-21:30/21
	16:30		17:39		18:38		20:43		21:41		22:10	05:04-05:16/12
26	08:25	09:39-09:50/11	07:18	07:50-08:14/24	06:05		05:44	20:07-20:13/6	04:44	05:43-06:05/22	04:27	21:09-21:29/20
	16:32		17:41		18:40		20:45		21:43		22:10	05:04-05:15/11
27	08:24	09:42-09:48/6	07:16	07:48-08:14/26	06:02		05:42	20:06-20:15/9	04:42	05:43-06:04/21	04:27	21:10-21:30/20
	16:34		17:43		18:42		20:47		21:45		22:10	05:05-05:16/11
28	08:22		07:13	07:47-08:14/27	05:59		05:39	20:05-20:18/13	04:41	21:08-21:09/1	04:28	21:09-21:29/20
	16:36		17:45		18:44		20:49		21:46	05:44-06:04/20	22:10	05:05-05:15/10
29	08:20				06:57		05:37	20:04-20:19/15	04:39	21:07-21:10/3	04:28	21:10-21:29/19
	16:38				19:47		20:51		21:48	05:45-06:04/19	22:09	05:06-05:16/10
30	08:18				06:54		05:35	20:04-20:21/17	04:38	21:07-21:11/4	04:29	21:10-21:29/19
	16:41				19:49		20:53		21:49	05:45-06:03/18	22:09	05:07-05:16/9
31	08:16				06:51				04:37	21:06-21:13/7		
	16:43				19:51				21:51	05:46-06:02/16		
Potential sun hours	235		266		366		426		508		528	
Sum of minutes with flicker	703		137		390		63		900		816	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C12 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (86)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 21:10-21:28/18 22:09 05:07-05:15/8	05:16 20:41-20:53/12 21:28 05:49-06:15/26	06:17 20:14 18:53	07:17 18:53	07:22 16:36	08:24 09:10-09:40/30 15:45
2	04:31 21:10-21:28/18 22:08 05:08-05:15/7	05:17 20:42-20:51/9 21:25 05:51-06:14/23	06:19 20:11 18:51	07:19 08:31-08:41/10 18:51	07:24 16:34	08:26 09:11-09:41/30 15:44
3	04:32 21:11-21:28/17 22:08 05:09-05:14/5	05:19 20:43-20:49/6 21:23 05:53-06:14/21	06:21 20:08 18:48	07:21 08:28-08:44/16 18:48	07:27 16:31	08:27 09:11-09:41/30 15:43
4	04:33 21:11-21:27/16 22:07 05:10-05:14/4	05:21 20:43-20:47/4 21:21 05:55-06:13/18	06:23 20:06 18:45	07:23 08:26-08:46/20 08:07-08:16/9	07:29 16:29	08:29 09:12-09:42/30 15:42
5	04:34 21:11-21:27/16 22:06 05:11-05:13/2	05:23 05:56-06:10/14 21:19	06:25 20:03 18:43	07:25 08:24-08:47/23 08:05-08:17/12	07:31 16:27	08:30 09:13-09:42/29 15:41
6	04:35 21:12-21:26/14 22:06	05:25 20:19-20:25/6 21:17 05:58-06:08/10	06:27 20:01 18:40	07:27 08:23-08:48/25 08:03-08:18/15	07:33 16:25	08:32 09:14-09:43/29 15:41
7	04:36 21:12-21:26/14 22:05	05:27 20:17-20:27/10 21:15	06:29 20:01 19:58	07:29 08:22-08:49/27 18:37 08:02-08:18/16	07:35 16:23	08:33 09:14-09:43/29 15:40
8	04:37 21:12-21:25/13 22:04 05:59-06:05/6	05:29 20:16-20:29/13 21:13	06:31 19:55	07:31 08:21-08:49/28 18:35 08:01-08:18/17	07:37 16:21	08:35 09:16-09:43/27 15:40
9	04:38 21:13-21:24/11 22:03 05:57-06:07/10	05:31 20:14-20:28/14 21:10	06:33 19:53	07:33 08:20-08:49/29 18:32 08:02-08:18/16	07:40 16:19	08:36 09:17-09:43/26 15:39
10	04:39 21:13-21:23/10 22:02 05:56-06:08/12	05:33 20:13-20:29/16 21:08	06:35 19:50	07:35 08:20-08:50/30 18:30 08:05-08:18/13	07:42 16:17	08:38 09:19-09:44/25 15:39
11	04:41 21:13-21:22/9 22:01 05:55-06:09/14	05:35 20:13-20:30/17 21:06	06:37 19:47	07:38 08:20-08:49/29 18:27 08:07-08:17/10	07:44 16:15	08:39 09:20-09:44/24 15:38
12	04:42 21:14-21:21/7 22:00 05:55-06:11/16	05:37 20:13-20:30/17 21:04	06:39 19:44	07:40 08:20-08:49/29 18:24 08:09-08:15/6	07:46 16:13	08:40 09:21-09:44/23 15:38
13	04:43 21:15-21:21/6 21:59 05:54-06:11/17	05:39 20:13-20:29/16 21:01	06:41 19:42	07:42 08:20-08:48/28 18:22 08:11-08:13/2	07:48 16:11	08:41 09:23-09:45/22 15:38
14	04:45 21:16-21:19/3 21:57 05:53-06:12/19	05:41 20:13-20:27/14 20:59	06:43 19:39	07:44 08:20-08:47/27 18:19	07:50 16:09	08:42 09:24-09:45/21 15:38
15	04:46 21:16-21:18/2 21:56 05:53-06:12/19	05:43 20:13-20:25/12 20:56	06:45 19:36	07:46 08:20-08:46/26 18:17	07:52 09:13-09:20/7 16:07	08:43 09:25-09:45/20 15:38
16	04:48 05:53-06:14/21 21:55	05:45 20:12-20:22/10 20:54	06:47 19:34	07:48 08:22-08:45/23 18:14	07:55 09:12-09:23/11 16:06	08:44 09:26-09:45/19 15:38
17	04:49 05:52-06:14/22 21:54	05:47 20:13-20:19/6 20:52	06:49 19:31	07:50 08:23-08:44/21 18:12	07:57 09:10-09:25/15 16:04	08:45 09:27-09:46/19 15:38
18	04:51 05:52-06:15/23 21:52	05:49 20:15-20:17/2 20:49	06:51 19:28	07:52 08:25-08:42/17 18:09	07:59 09:09-09:28/19 16:02	08:46 09:28-09:46/18 15:38
19	04:52 20:48-20:51/3 21:51 05:51-06:15/24	05:51 20:47 05:53	06:53 19:26	07:54 08:27-08:39/12 18:07	08:01 09:09-09:32/23 16:01	08:47 09:28-09:46/18 15:38
20	04:54 20:45-20:53/8 21:49 05:52-06:16/24	05:53 20:44 05:55	06:55 19:23	07:56 18:04	08:03 09:08-09:33/25 15:59	08:47 09:29-09:47/18 15:38
21	04:56 20:44-20:55/11 21:48 05:51-06:16/25	05:55 20:42 05:57	06:57 19:20	07:59 18:02	08:05 09:08-09:34/26 15:57	08:48 09:29-09:47/18 15:39
22	04:57 20:44-20:56/12 21:46 05:51-06:17/26	05:57 20:39 05:59	06:59 19:18	08:01 17:59	08:07 09:07-09:35/28 15:56	08:49 09:30-09:47/17 15:39
23	04:59 20:43-20:57/14 21:44 05:51-06:16/25	05:59 20:37 06:01	07:01 19:15	08:03 17:57	08:09 09:08-09:37/29 15:55	08:49 09:30-09:48/18 15:40
24	05:01 20:42-20:58/16 21:43 05:50-06:17/27	06:01 20:34 06:03	07:03 19:12	08:05 17:54	08:11 09:08-09:37/29 15:53	08:50 09:31-09:49/18 15:40
25	05:03 20:41-20:57/16 21:41 05:49-06:16/27	06:03 20:32 06:05	07:05 19:09	07:07 16:52	08:13 09:08-09:38/30 15:52	08:50 09:31-09:49/18 15:41
26	05:04 20:41-20:58/17 21:39 05:48-06:17/29	06:05 20:29 06:07	07:07 19:07	07:09 16:50	08:15 09:08-09:38/30 15:51	08:50 09:31-09:50/19 15:42
27	05:06 20:42-20:59/17 21:37 05:48-06:17/29	06:07 20:27 06:09	07:09 19:04	07:11 16:47	08:17 09:08-09:39/31 15:49	08:50 09:31-09:50/19 15:43
28	05:08 20:41-20:58/17 21:35 05:48-06:16/28	06:09 20:24 06:11	07:11 19:01	07:14 16:45	08:18 09:08-09:39/31 15:48	08:51 09:31-09:51/20 15:44
29	05:10 20:41-20:58/17 21:33 05:47-06:16/29	06:11 20:22 06:13	07:13 18:59	07:16 16:43	08:20 09:10-09:41/31 15:47	08:51 09:31-09:51/20 15:44
30	05:12 20:41-20:57/16 21:31 05:47-06:16/29	06:13 20:19 06:15	07:15 18:56	07:18 16:40	08:22 09:10-09:41/31 15:46	08:51 09:31-09:52/21 15:45
31	05:14 20:41-20:54/13 21:30 05:48-06:16/28	06:15 20:16 20:16	07:17 16:38	07:20 16:38	08:24 15:47	08:51 09:30-09:52/22 15:47
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	906	296	0	536	396	697

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C13 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (87)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:51 09:43-11:28/105 13:20-13:33/13 15:48 14:00-14:42/42	08:15 10:08-11:11/63 08:56-09:53/57 16:45 14:09-15:11/62	07:11 07:37-08:04/27 17:48 16:12-16:59/47	06:49 08:12-08:19/7 19:53 07:57-08:05/8	05:33 06:00-06:33/33 20:04-20:23/19 20:55 06:54-07:07/13	04:36 05:10-05:29/19 21:52 20:29-21:00/31
2	08:50 09:44-11:29/105 13:22-13:33/11 15:49 14:00-14:43/43	08:13 10:09-11:08/59 08:56-09:54/58 16:47 14:10-15:11/61 08:43-08:45/2	07:08 07:34-07:57/23 17:50 16:11-16:58/47	06:46 19:55	05:30 05:58-06:32/34 20:04-20:25/21 20:57 07:00-07:01/1	04:35 05:09-05:29/20 21:54 20:29-21:00/31
3	08:50 09:44-11:29/105 13:23-13:32/9 15:51 14:00-14:45/45	08:11 14:11-15:11/60 08:58-09:55/57 16:50 10:10-10:57/47 08:41-08:46/5	07:06 07:32-07:55/23 17:52 16:12-16:59/47	06:43 07:16-07:32/16 19:57	05:28 05:56-06:31/35 20:59 20:04-20:25/21	04:34 05:08-05:29/21 21:55 20:29-21:01/32
4	08:50 09:43-11:29/106 13:24-13:31/7 15:52 14:00-14:47/47	08:09 14:13-15:11/58 09:01-09:56/55 16:52 10:12-10:57/45 08:39-08:47/8	07:03 07:29-07:53/24 17:54 16:12-16:58/46	06:41 07:12-07:34/22 19:59 07:06-07:10/4	05:26 05:54-06:28/34 21:02 20:04-20:25/21	04:33 05:08-05:30/22 21:57 20:28-21:01/33
5	08:49 09:44-11:30/106 15:53 14:01-14:50/49	08:07 14:15-15:10/55 10:13-10:56/43 16:54 08:37-08:48/11 09:01-09:56/55	07:00 07:27-07:53/26 17:56 16:12-16:57/45	06:38 07:03-07:36/33 20:01	05:23 05:52-06:20/28 21:06 20:05-20:24/19	04:32 05:07-05:30/23 21:58 20:29-21:02/33
6	08:49 09:44-11:29/105 15:55 14:01-14:52/51	08:05 14:17-15:09/52 10:14-10:53/39 16:56 08:34-08:40/14 09:00-09:56/56	06:58 07:24-07:51/27 17:58 16:13-16:57/44	06:35 07:01-07:38/37 20:03	05:21 05:50-06:19/29 21:06 20:05-20:24/19	04:31 05:06-05:30/24 21:59 20:29-21:02/33
7	08:48 09:44-11:29/105 15:56 14:00-14:53/53	08:03 08:32-08:49/17 14:20-15:08/48 16:59 10:16-10:52/36 09:00-09:57/57	06:55 07:21-07:49/28 18:00 16:14-16:56/42	06:33 06:58-07:38/40 20:05	05:19 05:48-06:18/30 21:08 20:05-20:24/19	04:30 05:06-05:31/25 22:00 20:28-21:02/34
8	08:47 09:45-11:29/104 15:58 14:01-14:55/54	08:00 08:30-08:49/19 14:31-15:08/37 17:01 10:18-10:49/31 08:59-09:57/58	06:53 07:18-07:47/29 18:03 16:14-16:55/41	06:30 06:56-07:39/43 20:08	05:17 05:46-06:18/32 21:10 20:06-20:23/17	04:29 05:05-05:31/26 22:01 20:29-21:03/34
9	08:47 09:45-11:29/104 15:59 14:01-14:56/55	07:58 08:27-08:49/22 14:31-15:06/35 17:03 10:20-10:45/25 08:59-09:56/57	06:50 07:16-07:44/28 18:05 16:16-16:54/38	06:28 06:57-07:40/47 20:10	05:15 05:44-06:17/33 21:12 20:07-20:22/15	04:29 05:04-05:31/27 22:02 20:28-21:03/35
10	08:46 09:45-11:29/104 16:01 14:01-14:57/56	07:56 08:25-08:50/25 14:34-15:04/30 17:05 10:25-10:42/17 08:59-09:57/58	06:47 07:13-07:42/29 18:07 16:18-16:52/34	06:25 06:50-07:39/49 20:12	05:13 05:42-06:16/34 21:14 20:08-20:21/13	04:28 05:04-05:31/27 22:03 20:29-21:04/35
11	08:45 09:46-11:29/103 16:03 14:01-14:59/58	07:54 08:23-08:51/28 14:36-15:02/26 17:08 10:31-10:36/5 08:59-09:57/58	06:45 07:10-07:38/28 18:09 16:20-16:49/29	06:22 06:48-07:40/52 20:14	05:11 05:40-06:15/35 21:16 20:09-20:20/11	04:27 05:04-05:32/28 22:04 20:28-21:04/36
12	08:44 09:46-11:29/103 09:21-09:28/7 16:05 14:00-14:59/59	07:52 08:20-08:51/31 08:58-09:56/58 17:10 14:39-14:58/19	06:42 07:08-07:37/29 16:25-16:32/7 18:11 16:36-16:46/10	06:20 06:45-07:40/55 20:16	05:08 05:38-05:59/21 06:00-06:14/14 21:18 20:11-20:17/6	04:27 05:03-05:32/29 22:05 20:29-21:04/35
13	08:43 09:46-11:27/101 09:19-09:29/10 16:06 14:01-15:01/60	07:49 08:18-08:51/33 17:12 08:59-09:56/57	06:39 07:05-07:37/32 18:13	06:17 06:43-07:40/57 20:18	05:06 05:37-05:59/22 21:20 06:02-06:13/11	04:26 05:03-05:32/29 22:06 20:29-21:05/36
14	08:42 09:46-11:27/101 09:18-09:31/13 16:08 14:01-15:02/61	07:47 08:15-08:51/36 17:14 08:58-09:55/57	06:37 07:02-07:38/36 18:15	06:14 06:40-07:40/60 20:20	05:04 05:35-05:57/22 21:22 06:04-06:10/6	04:26 05:03-05:32/29 22:07 20:30-21:05/35
15	08:41 09:47-11:26/99 09:17-09:33/16 16:10 14:01-15:03/62	07:45 08:14-08:51/37 17:17 08:59-09:55/56	06:34 07:00-07:39/39 18:17	06:12 06:38-07:40/62 20:22	05:03 05:33-05:55/22 21:23	04:26 05:03-05:33/30 22:07 20:29-21:05/36
16	08:40 09:47-11:23/96 09:16-09:34/18 16:12 14:01-15:04/63	07:43 08:13-08:50/37 17:19 08:59-09:53/54	06:32 06:57-07:38/41 18:20	06:09 06:35-07:39/64 20:24	05:01 05:31-05:51/20 21:25	04:25 05:02-05:32/30 22:08 20:29-21:05/36
17	08:39 09:48-11:20/92 09:16-09:35/19 16:14 14:01-15:04/63	07:40 08:14-08:50/36 09:00-09:53/53 17:21 16:26-16:36/10	06:29 06:54-07:38/44 18:22	06:07 06:33-07:39/66 20:26	04:59 05:30-05:51/21 21:27	04:25 05:02-05:32/30 22:08 20:30-21:05/35
18	08:37 09:48-11:20/92 09:12-09:36/24 16:16 14:02-15:06/64	07:38 16:22-16:39/17 16:43-16:52/9 17:23 08:14-08:49/35 09:00-09:51/51	06:26 06:52-07:38/46 18:24	06:04 06:30-07:38/68 20:28	04:57 05:28-05:50/22 21:29	04:25 05:02-05:33/31 22:09 20:30-21:06/36
19	08:36 09:48-11:20/92 09:10-09:36/26 16:18 14:02-15:06/64	07:35 16:20-16:55/35 08:14-08:49/35 17:26 08:03-08:05/2 09:01-09:50/49	06:24 06:49-07:38/49 18:26 17:53-17:58/5	06:02 06:28-07:37/69 20:30	04:55 05:27-05:48/21 21:31	04:25 05:02-05:33/31 22:09 20:30-21:06/36
20	08:35 09:49-11:21/92 09:09-09:38/29 16:20 14:03-15:08/65	07:33 08:00-08:06/6 08:15-08:47/32 17:28 16:18-16:57/39 09:01-09:48/47	06:21 06:48-07:37/49 18:28 17:51-18:00/9	05:59 06:26-07:36/70 20:32	04:53 05:26-05:43/17 21:33	04:25 05:03-05:34/31 22:10 20:30-21:06/36
21	08:33 09:49-11:20/91 09:07-09:38/31 16:22 14:03-15:08/65	07:31 07:58-08:00/10 08:32-08:45/13 08:17-08:29/12 17:30 16:17-16:59/42 09:02-09:46/44	06:18 06:48-07:36/48 18:30 17:49-18:02/13	05:57 06:23-07:35/72 20:39	04:52 05:27-05:44/17 21:35	04:25 05:03-05:34/31 22:10 20:31-21:07/36
22	08:32 09:50-11:20/90 09:05-09:39/34 16:24 14:03-15:08/65	07:28 07:55-08:08/13 08:35-08:47/7 08:19-08:25/6 17:32 16:16-17:00/44 09:03-09:42/39	06:15 06:49-07:36/47 17:48-18:03/15 18:32 06:41-06:42/1	05:54 06:21-07:34/73 20:37	04:50 05:26-05:43/17 21:36 20:37-20:50/13	04:25 05:03-05:34/31 22:10 20:31-21:07/36
23	08:30 09:51-11:20/89 09:04-09:41/37 16:26 14:03-15:09/66	07:26 07:53-08:09/16 09:05-09:30/25 17:34 16:15-17:01/46	06:13 06:50-07:35/45 17:48-18:06/18 18:34 06:38-06:43/5	05:52 06:18-07:32/74 20:39	04:48 05:27-05:43/16 21:38 20:36-20:53/17	04:26 05:03-05:34/31 22:10 20:31-21:07/36
24	08:29 09:52-11:20/88 09:02-09:44/42 16:28 14:03-15:09/66	07:23 07:50-08:09/19 09:07-09:27/20 17:37 16:14-17:01/47	06:10 06:49-07:34/45 17:47-18:08/21 18:36 06:35-06:44/9	05:49 06:47-07:31/44 20:41 06:16-06:45/29	04:47 05:19-05:23/4 20:34-20:53/19 21:40 05:27-05:42/15	04:26 05:04-05:35/31 22:10 20:31-21:07/36
25	08:27 09:53-11:20/87 09:00-09:46/46 16:30 14:04-15:10/66	07:21 07:48-08:09/21 09:10-09:25/15 17:39 16:13-17:00/47	06:07 06:50-07:34/44 17:47-18:09/22 18:38 06:33-06:44/11	05:47 06:48-07:30/42 20:43 06:14-06:42/28	04:45 05:18-05:24/6 20:33-20:55/22 21:42 05:28-05:42/14	04:26 05:04-05:34/30 22:10 20:32-21:08/36
26	08:25 09:54-11:19/85 08:58-09:48/50 16:32 14:05-15:11/66	07:18 07:45-08:08/23 17:41 16:13-17:01/48	06:05 06:49-07:33/44 17:48-18:09/21 18:40 06:30-06:44/14	05:44 06:11-06:41/30 20:11-20:13/2 20:45 06:47-07:27/40	04:44 05:17-05:26/9 20:32-20:56/24 21:43 05:29-05:42/13	04:27 05:05-05:35/30 22:10 20:32-21:08/36
27	08:24 09:56-11:18/82 08:56-09:49/53 16:34 14:05-15:11/66	07:16 07:42-08:07/25 17:43 16:12-17:00/48	06:02 06:49-07:31/42 17:48-18:08/20 18:43 06:27-06:43/16	05:42 06:09-06:40/31 20:09-20:16/7 20:47 06:49-07:23/34	04:42 05:16-05:27/11 20:31-20:56/25 21:45 05:30-05:41/11	04:27 05:05-05:35/30 22:10 20:32-21:08/36
28	08:22 09:58-11:18/80 08:54-09:50/56 16:36 14:06-15:11/65	07:13 07:40-08:06/26 17:45 16:12-17:00/48	05:59 06:51-07:30/39 17:49-18:07/18 18:45 06:28-06:43/15	05:40 06:07-06:39/32 20:07-20:18/11 20:49 06:50-07:14/24	04:41 05:14-05:27/13 20:30-20:57/27 21:46 05:30-05:40/10	04:28 05:06-05:36/30 22:10 20:32-21:08/36
29	08:20 10:00-11:17/77 08:54-09:51/57 16:39 14:07-15:12/65	17:45	06:57 07:51-08:28/37 18:52-19:06/14 19:47 07:28-07:42/14	05:37 06:05-06:38/33 20:07-20:20/13 20:51 06:51-07:12/21	04:40 05:13-05:27/14 20:30-20:58/28 21:48 05:32-05:39/7	04:29 05:06-05:35/29 22:10 20:32-21:08/36
30	08:18 10:08-11:16/68 08:54-09:52/58 16:41 14:07-15:12/65	17:43	06:54 07:52-08:26/34 18:53-19:04/11 19:49 07:29-07:40/11	05:35 06:03-06:35/32 20:05-20:21/16 20:53 06:52-07:10/18	04:38 05:12-05:28/16 20:30-20:59/29 21:50 05:34-05:37/2	04:29 05:07-05:36/29 22:09 20:33-21:08/35
31	08:17 10:09-11:14/65 08:55-09:53/58 16:43 14:07-15:11/64	17:45	06:51 07:54-08:24/30 18:55-19:00/5 19:51 07:31-07:38/7	05:37 06:04-06:37/32 20:06-20:22/17 20:54 06:53-07:11/19	04:37 05:11-05:28/17 21:51 20:29-21:00/31	04:29 05:07-05:36/29 22:09 20:33-21:08/35
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	5479	3346	1884	1635	1249	1880

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C13 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (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	WNNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 05:08-05:36/28 22:09 20:33-21:08/35	05:16 05:50-06:24/34 21:28 20:20-20:29/5	06:17 06:47-07:39/52 20:14	07:17 07:46-08:16/30 18:54 17:18-17:23/5	07:23 07:55-08:19/24 14:03-14:34/31 16:36 09:54-10:12/18 08:28-09:26/58	08:24 09:28-11:11/103 15:45 13:43-14:41/58
2	04:31 05:08-05:36/28 22:08 20:33-21:08/35	05:18 05:51-06:26/35 21:26 20:19-20:31/12	06:19 06:49-07:38/49 20:11	07:19 07:48-08:15/27 18:51 17:01-17:27/26	07:25 07:57-08:19/22 14:01-14:35/34 16:34 09:49-10:15/26 08:28-09:26/58	08:26 09:28-11:12/104 15:44 13:44-14:41/57
3	04:32 05:09-05:36/27 22:06 20:34-21:08/34	05:19 05:52-06:27/34 21:24 20:18-20:32/14	06:21 06:51-07:38/47 20:09	07:21 07:50-08:19/29 18:48 16:57-17:29/32	07:27 08:00-08:19/19 13:55-13:59/4 08:29-09:27/58 16:32 09:47-10:20/33 14:00-14:37/37	08:27 09:29-11:12/103 15:43 13:44-14:39/55
4	04:33 05:10-05:36/26 22:07 20:34-21:09/35	05:21 05:55-06:27/32 21:22 20:17-20:33/16	06:23 06:53-07:37/44 20:06	07:23 07:52-08:20/28 18:46 16:54-17:30/36	07:29 08:02-08:18/16 13:49-14:38/49 16:29 09:45-10:22/37 08:29-09:26/57	08:29 09:29-11:13/104 15:42 13:45-14:39/54
5	04:34 05:11-05:37/26 22:07 20:34-21:09/35	05:23 05:57-06:28/31 21:19 20:15-20:33/18	06:25 06:55-07:35/40 20:03	07:25 07:54-08:22/28 18:43 16:52-17:31/39	07:31 13:46-14:39/39 09:45-10:23/40 16:27 08:05-08:19/14 08:29-09:26/57	08:31 09:30-11:14/104 15:40 13:47-14:36/49
6	04:35 05:12-05:37/25 22:06 20:35-21:09/34	05:25 05:58-06:28/30 21:17 20:14-20:33/19	06:27 06:57-07:33/36 20:01	07:27 07:56-08:24/28 18:40 16:50-17:32/42	07:33 13:45-14:40/55 09:43-10:25/42 16:25 08:07-08:18/11 08:31-09:26/55	08:32 09:30-11:16/106 15:41 13:47-14:38/51
7	04:36 05:13-05:37/24 22:05 20:35-21:09/34	05:27 06:00-06:29/29 21:15 20:14-20:34/20	06:29 06:58-07:31/33 19:58	07:29 07:58-08:24/28 18:38 16:49-17:32/43	07:36 13:43-14:40/57 08:30-09:25/55 16:23 09:41-10:26/45 08:09-08:17/8	08:34 09:30-11:16/106 15:40 13:47-14:36/49
8	04:37 05:14-05:37/23 22:04 20:36-21:09/33	05:29 06:02-06:30/28 06:32-06:35/3 21:13 20:14-20:34/20	06:31 07:06-07:29/23 19:55 07:00-07:04/4	07:32 08:01-08:27/26 18:35 16:48-17:32/44	07:38 13:42-14:42/60 08:28-09:26/58 16:21 09:41-10:28/47 08:12-08:17/5	08:35 09:32-11:17/105 13:13-13:19/6 15:40 13:48-14:36/48
9	04:38 05:15-05:37/22 22:03 20:36-21:08/32	05:31 06:04-06:39/35 21:11 20:14-20:34/20	06:33 07:09-07:25/16 19:53	07:34 08:03-08:28/25 18:32 16:47-17:32/45	07:40 09:40-10:39/59 08:27-09:25/58 16:19 13:41-14:42/61 08:14-08:15/1	08:37 09:33-11:17/104 13:11-13:20/9 15:39 13:48-14:33/45
10	04:39 05:16-05:37/21 22:02 20:36-21:08/32	05:33 06:06-06:40/34 21:08 20:13-20:33/20	06:35 19:50	07:36 08:05-08:29/24 18:30 16:47-17:33/46	07:42 09:40-10:43/63 08:27-09:25/58 16:17 13:39-14:42/63	08:38 09:33-11:18/105 13:11-13:22/11 15:38 13:49-14:32/43
11	04:41 05:18-05:37/19 22:01 20:37-21:08/31	05:35 06:08-06:42/34 20:13-20:33/20 21:06 07:06-07:13/7	06:37 08:05-08:10/5 19:47 07:50-07:57/7	07:38 08:07-08:30/23 18:27 16:46-17:33/47	07:44 09:39-10:45/66 08:26-09:24/58 16:15 13:39-14:43/64	08:39 09:33-11:18/105 13:10-13:23/13 15:38 13:50-14:32/42
12	04:42 05:19-05:37/18 22:00 20:38-21:08/30	05:37 06:09-06:42/33 20:13-20:31/18 21:04 07:02-07:16/14	06:39 07:46-08:15/29 18:48-18:52/4 19:45 07:23-07:28/5	07:40 08:09-08:36/27 18:25 16:45-17:32/47	07:46 09:39-10:47/68 08:25-09:23/58 16:13 13:38-14:43/65	08:40 09:35-11:20/105 13:11-13:25/14 15:38 13:51-14:33/42
13	04:43 05:20-05:37/17 21:59 20:38-21:08/30	05:39 06:11-06:43/32 20:14-20:29/15 21:01 07:00-07:19/19	06:41 07:43-08:17/34 18:44-18:55/11 19:42 07:20-07:31/11	07:42 08:11-08:38/27 18:22 16:45-17:32/47	07:49 09:32-10:49/77 08:26-09:23/57 16:11 13:38-14:43/65	08:41 09:35-11:20/105 13:10-13:27/17 15:38 13:52-14:32/40 12:51-12:56/5
14	04:45 05:21-05:36/15 20:38-21:07/29 21:58 05:41-05:46/5	05:41 06:13-06:46/33 20:14-20:27/13 20:59 06:58-07:20/22	06:43 07:42-08:18/36 18:42-18:56/14 19:39 07:19-07:32/13	07:44 08:14-08:40/26 18:19 16:44-17:32/48	07:51 09:29-10:50/81 08:26-09:22/56 16:09 13:38-14:43/65	08:43 09:36-11:20/104 13:10-13:28/18 15:38 13:52-14:32/40 12:50-12:58/8
15	04:46 05:23-05:36/13 20:39-21:06/27 21:57 05:40-05:49/9	05:43 06:15-06:47/32 20:15-20:25/10 20:57 06:57-07:22/25	06:45 07:40-08:20/40 18:40-18:57/17 19:37 07:17-07:32/15	07:46 08:16-08:40/24 18:17 16:45-17:32/47	07:53 09:29-10:50/81 08:29-09:21/52 16:08 13:37-14:43/66	08:44 09:36-11:21/105 13:10-13:29/19 15:38 13:53-14:33/40 12:50-12:59/9
16	04:48 05:24-05:36/12 20:40-21:06/26 21:55 05:39-05:50/11	05:45 06:17-06:48/31 20:17-20:23/6 20:54 06:56-07:22/36	06:47 07:39-08:20/41 18:38-18:57/19 19:34 07:17-07:33/16	07:48 08:18-08:40/22 09:45-09:53/8 18:14 16:45-17:33/48	07:55 09:27-10:52/85 08:31-09:20/49 16:06 13:38-14:44/66	08:45 09:37-11:21/104 13:10-13:30/20 15:38 13:54-14:33/39 12:50-13:00/11
17	04:49 05:25-05:35/10 20:41-21:05/24 21:54 05:38-05:50/12	05:47 06:55-07:35/40 20:18-20:19/1 20:52 06:19-06:49/30	06:49 07:38-08:21/43 18:37-18:57/20 19:31 07:18-07:32/14	07:50 08:25-08:40/20 09:40-09:57/17 18:12 16:45-17:32/47	07:57 09:26-10:53/87 08:33-09:19/46 16:04 13:37-14:43/66	08:45 09:37-11:22/105 13:11-13:31/20 15:38 13:54-14:33/39 12:50-13:01/11
18	04:51 05:27-05:34/7 20:42-21:05/23 21:52 05:38-05:51/13	05:49 06:53-07:36/43 20:49 06:21-06:49/28	06:51 07:37-08:21/44 18:35-18:56/21 19:29 07:20-07:32/12	07:52 08:22-08:40/18 09:37-09:59/22 18:09 16:45-17:32/47	07:59 09:26-10:54/88 08:36-09:18/42 16:02 13:37-14:43/66	08:46 09:38-11:23/105 13:11-13:32/21 15:38 13:55-14:33/38 12:50-13:02/12
19	04:52 05:28-05:33/5 20:43-21:04/21 21:51 05:37-05:52/15	05:51 06:52-07:37/45 20:47 06:22-06:51/29	06:53 07:38-08:21/45 18:34-18:55/21 19:26 07:22-07:31/9	07:55 08:25-08:40/15 10:03-10:10/7 18:07 16:46-17:31/45 09:36-10:02/26	08:01 09:26-10:55/90 08:38-09:16/38 16:01 13:38-14:44/66	08:47 09:39-11:24/105 13:11-13:32/21 15:38 13:55-14:33/38 12:49-13:02/13
20	04:54 05:37-05:53/16 05:30-05:32/2 21:49 20:45-21:03/18	05:53 06:53-07:38/44 20:45	06:55 07:36-08:21/45 18:34-18:52/18 19:23 07:24-07:30/6	07:57 08:27-08:39/12 09:05-09:14/9 08:49-08:58/9 18:04 16:47-17:31/44 09:34-10:14/40	08:03 09:25-10:55/90 08:40-09:14/34 15:59 13:38-14:43/65	08:48 09:39-11:24/105 13:11-13:33/22 15:39 13:56-14:34/38 12:50-13:03/13
21	04:56 05:38-05:53/17 21:48 20:46-21:01/15	05:55 06:26-07:39/73 20:42	06:57 07:36-08:21/45 18:33-18:50/17 19:20 07:26-07:28/2	07:59 08:29-08:39/9 09:02-09:16/14 08:46-08:59/13 18:02 16:48-17:29/41 09:32-10:17/45	08:05 09:25-10:55/90 08:43-09:14/31 15:58 13:38-14:43/65	08:49 09:40-11:24/104 13:12-13:34/22 15:39 13:57-14:35/38 12:51-13:04/13
22	04:57 05:37-05:53/16 21:46 20:46-20:59/11	05:57 06:28-07:40/72 20:40	06:59 07:34-08:21/47 19:18 18:34-18:47/13	08:01 08:32-08:37/5 08:46-09:18/32 17:59 16:49-17:26/37 09:31-10:19/48	08:07 09:25-10:57/92 08:45-09:14/29 15:56 13:39-14:44/65	08:49 09:40-11:24/104 13:12-13:34/22 15:40 13:58-14:36/38 12:52-13:05/13
23	04:59 05:36-05:53/17 21:45	05:59 06:30-07:41/71 20:37	07:01 07:33-08:22/49 19:15 18:34-18:44/10	08:03 16:51-17:25/34 08:45-09:19/34 17:57 08:34-08:35/1 09:31-10:21/50	08:09 09:25-10:57/92 08:47-09:13/26 15:55 13:39-14:43/64	08:49 09:41-11:25/104 13:13-13:35/22 15:40 13:58-14:36/38 12:52-13:05/13
24	05:01 05:36-05:54/18 21:43	06:01 06:32-07:41/69 20:35	07:03 07:32-08:22/50 19:12 18:35-18:42/7	08:05 08:44-09:20/36 17:14-17:22/8 17:55 16:53-17:09/16 09:30-10:22/52	08:11 09:25-10:57/92 08:49-09:13/24 15:53 13:39-14:43/64	08:50 09:41-11:25/104 13:14-13:35/21 15:41 13:58-14:36/38 12:52-13:05/13
25	05:03 05:38-06:00/22 21:41	06:03 06:34-07:41/67 20:32	07:05 07:34-08:21/47 19:10 18:37-18:39/2	07:07 07:43-08:20/37 08:29-09:22/53 16:52 15:58-16:04/6	08:13 09:25-10:57/92 08:53-09:12/19 15:52 13:39-14:42/63	08:51 09:41-11:26/105 13:14-13:35/21 15:41 13:58-14:36/38 12:53-13:05/12
26	05:04 05:39-06:00/21 21:39	06:05 06:36-07:42/66 20:29	07:07 07:36-08:21/45 19:07	07:09 07:43-08:21/38 16:50 08:29-09:24/55	08:15 09:26-11:02/96 08:55-09:13/18 15:51 13:39-14:42/63	08:51 09:41-11:26/105 13:14-13:35/21 15:42 13:58-14:37/39 12:53-13:05/12
27	05:06 05:41-06:02/21 21:37	06:07 06:38-07:41/63 20:27	07:09 07:38-08:20/42 19:04	07:12 07:43-08:21/38 16:47 08:28-09:24/56	08:17 09:26-11:05/99 08:56-09:12/16 15:49 13:41-14:43/62	08:51 09:42-11:26/104 13:15-13:35/20 15:43 13:58-14:37/39 12:54-13:05/11
28	05:08 05:43-06:03/20 21:36	06:09 06:39-07:41/62 20:24	07:11 07:40-08:20/40 19:02	07:14 07:45-08:20/35 16:45 08:28-09:25/57	08:19 09:26-11:07/101 08:58-09:11/13 15:48 13:41-14:42/61	08:51 09:42-11:27/105 13:16-13:35/19 15:44 13:59-14:38/39 12:55-13:05/10
29	05:10 05:44-06:06/22 21:34	06:11 06:41-07:41/60 20:22	07:13 07:42-08:19/37 18:59	07:16 07:48-08:21/33 08:28-09:26/58 16:43 14:14-14:18/4	08:21 09:27-11:08/101 09:00-09:10/10 15:47 13:42-14:42/60	08:51 09:42-11:27/105 13:17-13:35/18 15:45 13:59-14:39/40 12:57-13:05/8
30	05:12 05:46-06:08/22 21:32 06:13-06:22/9	06:13 06:43-07:40/57 20:19	07:15 07:44-08:18/34 18:56	07:18 07:50-08:20/30 08:28-09:26/58 16:40 14:08-14:28/20	08:22 09:27-11:10/103 09:02-09:09/7 15:46 13:42-14:41/59	08:51 09:43-11:28/105 13:18-13:35/17 15:46 14:00-14:40/40 12:58-13:05/7
31	05:14 05:48-06:10/22 21:30 06:11-06:24/13	06:15 06:45-07:40/55 20:17	07:16 07:45-08:19/37 18:54	07:20 07:53-08:20/27 14:04-14:31/27 16:38 09:58-10:07/9 08:28-09:27/59	15:46 13:42-14:41/59	08:51 09:43-11:28/105 13:19-13:35/16 15:47 14:00-14:41/41 13:02-13:03/1
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	1313	1898	1445	2625	5339	5201

Potential sun hours

Sum of minutes with flicker

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C14 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (88)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:51 14:14-14:46/32 15:48 09:31-10:28/57 2 08:50 14:16-14:46/30 15:49 09:30-10:29/59 3 08:50 14:16-14:46/30 15:51 09:29-10:29/60 4 08:50 14:17-14:46/29 15:52 09:28-10:29/61 5 08:49 14:19-14:47/28 15:53 09:28-10:30/62 6 08:49 14:20-14:47/27 15:55 09:27-10:31/64 7 08:48 14:21-14:47/26 15:56 09:26-10:31/65 8 08:47 14:23-14:47/24 15:58 09:25-10:32/67 9 08:47 14:28-14:47/19 16:00 09:24-10:32/68 10 08:46 09:23-10:32/69 16:01 14:29-14:47/18 11 08:45 09:22-10:33/71 16:03 14:31-14:47/16 12 08:44 09:21-10:33/72 16:05 14:32-14:45/13 13 08:43 09:19-10:33/74 16:06 14:35-14:44/9 14 08:42 09:18-10:34/76 16:08 15 08:41 09:17-10:33/76 16:10 16 08:40 09:15-10:34/79 16:12 17 08:39 09:14-10:34/80 16:14 15:30-15:34/4 18 08:37 09:12-10:34/82 16:16 15:30-15:37/7 19 08:36 09:10-10:33/83 16:18 15:29-15:39/10 20 08:35 09:09-10:34/85 16:20 15:29-15:42/13 21 08:33 09:07-10:33/86 16:22 15:28-15:44/16 22 08:32 09:05-10:32/87 16:24 15:28-15:46/18 23 08:30 09:03-10:31/88 16:26 15:28-15:48/20 24 08:29 09:02-10:31/89 16:28 15:27-15:50/23 25 08:27 09:00-10:30/90 16:30 15:28-15:54/26 26 08:25 08:58-10:28/90 16:32 15:29-15:56/27 27 08:24 08:57-10:27/90 16:34 15:29-15:58/29 28 08:22 08:57-10:27/90 16:37 15:29-15:59/30 29 08:20 08:57-10:27/90 15:30-16:00/30 16:39 08:52-08:53/1 30 08:18 08:57-10:27/90 15:30-16:00/30 16:41 08:50-08:54/4 31 08:17 09:21-10:27/66 08:48-08:55/7 16:43 08:58-09:18/20 15:30-15:59/29	08:15 09:20-10:26/66 08:45-08:56/11 16:45 08:58-09:16/18 15:32-15:59/27 08:13 09:20-10:26/66 08:43-08:56/13 16:48 08:58-09:16/18 15:33-15:59/26 08:11 09:20-10:25/65 08:41-08:56/15 16:50 09:00-09:16/16 15:36-15:59/23 08:09 09:21-10:25/64 08:39-08:57/18 16:52 09:01-09:15/14 15:44-15:58/14 08:07 09:21-10:24/63 08:37-08:57/20 16:54 09:03-09:14/11 15:45-15:56/11 08:05 09:21-10:22/61 08:34-08:56/22 16:56 09:06-09:10/4 15:48-15:54/6 08:03 09:21-10:21/60 16:59 08:32-08:56/24 08:00 09:22-10:20/58 17:01 08:30-08:56/26 07:58 09:22-10:17/55 17:03 08:27-08:54/27 07:56 08:25-08:53/28 17:05 09:23-10:13/50 07:54 08:23-08:52/29 17:08 09:24-10:03/39 07:52 08:20-08:49/29 17:10 09:24-10:00/36 07:49 08:18-08:47/29 17:12 09:26-09:57/31 07:47 08:15-08:44/29 17:14 09:27-09:55/28 07:45 08:13-08:43/30 17:17 09:29-09:54/25 07:43 08:10-08:38/28 17:19 09:30-09:51/21 07:40 08:08-08:34/26 17:21 09:33-09:49/16 07:38 08:05-08:31/26 17:23 09:39-09:42/3 07:35 08:03-08:27/24 17:26 07:33 08:00-08:23/23 17:28 07:31 07:58-08:22/24 17:30 07:28 07:55-08:22/27 17:32 07:26 07:53-08:23/30 17:34 07:23 07:50-08:23/33 17:37 07:21 07:48-08:24/36 17:39 07:18 07:45-08:23/38 17:41 07:16 07:42-08:23/41 17:43 07:13 07:40-08:23/43 17:45 07:10 07:37-08:22/45 17:48 07:08 07:34-08:21/47 07:06 07:32-08:20/48 17:52 07:03 07:29-08:19/50 17:54 07:00 07:26-08:16/50 17:56 06:58 07:24-08:14/50 17:58 06:55 07:21-08:03/42 18:01 08:06-08:09/3 06:53 07:18-08:01/43 18:03 06:50 07:16-08:00/44 18:05 06:47 07:13-07:57/44 18:07 07:17-17:37/10 06:45 07:10-07:56/46 18:09 07:23-17:39/16 06:42 07:08-07:56/48 18:11 17:22-17:42/20 06:40 07:05-07:54/49 18:13 17:20-17:42/22 06:37 07:02-07:53/51 18:15 17:19-17:42/23 06:34 07:00-07:53/53 18:18 17:18-17:43/25 06:32 06:58-07:51/53 18:20 17:18-17:43/25 06:29 06:56-07:49/53 18:22 17:17-17:43/26 06:26 06:55-07:46/51 18:24 17:17-17:42/25 06:24 06:55-07:43/48 17:17-17:42/25 18:26 17:57-17:58/1 06:21 06:54-07:34/40 17:17-17:41/24 18:28 17:54-18:00/6 06:18 06:54-07:33/39 17:17-17:40/23 18:30 17:53-18:02/9 06:16 06:54-07:33/39 17:19-17:40/21 18:32 17:52-18:04/12 06:13 06:54-07:32/38 17:19-17:38/19 18:34 17:52-18:06/14 06:10 06:54-07:31/37 17:20-17:35/15 18:36 17:51-18:08/17 06:07 06:55-07:30/35 17:23-17:32/9 18:38 17:51-18:07/16 06:05 06:55-07:28/33 18:41 17:52-18:06/14 06:02 06:56-07:26/30 18:43 17:53-18:04/11 05:59 06:58-07:24/26 18:45 17:54-18:02/8 06:57 07:59-08:20/21 19:47 06:54 08:04-08:06/2 19:49 06:51 07:17-07:24/7 19:51	06:49 07:14-07:26/12 19:53 06:46 07:11-07:26/15 19:55 06:43 07:09-07:28/19 19:57 06:41 07:06-07:28/22 19:59 06:38 07:03-07:27/24 20:01 06:35 07:01-07:28/27 20:03 06:33 06:58-07:27/29 20:05 06:30 06:56-07:27/31 20:08 06:28 06:53-07:26/33 20:10 06:25 06:50-07:25/35 20:12 06:22 06:48-07:24/36 20:14 06:20 06:45-07:22/37 20:16 06:17 06:44-07:21/37 20:18 06:15 06:43-07:17/34 20:20 06:12 06:42-07:13/31 20:22 06:09 06:41-07:13/32 20:24 06:07 06:41-07:14/33 20:26 06:04 06:40-07:14/34 20:28 06:02 06:31-07:15/44 20:30 06:28-06:29/1 05:59 06:26-07:16/50 05:57 06:23-07:15/52 05:54 06:21-07:16/55 05:52 06:19-07:15/56 20:39 05:49 06:16-07:15/59 20:41 05:47 06:14-07:15/61 20:43 05:44 06:12-07:14/62 20:45 05:42 06:09-07:14/65 20:47 05:40 06:07-07:14/67 20:49 05:37 06:05-07:13/68 20:51 05:35 06:03-07:13/70 20:53 05:33 06:01-07:12/71 20:55 05:30 05:58-07:10/72 20:57 05:28 05:56-07:09/73 20:59 20:25-20:27/2 05:26 06:19-07:08/49 20:24-20:29/5 21:02 05:54-06:17/23 05:23 06:20-07:07/47 20:23-20:31/8 21:04 05:52-06-17/25 05:21 06:20-07:05/45 20:23-20:33/10 21:06 05:50-06:19/29 05:19 06:21-07:03/42 20:23-20:35/12 21:08 05:48-06-20/32 05:17 05:47-07:01/74 05:15 06:23-07:01/38 20:22-20:38/16 21:12 05:47-06:22/35 05:13 06:24-07:00/36 20:22-20:38/16 21:14 05:47-06-23/36 05:11 06:26-06:59/33 20:23-20:37/14 21:16 05:47-06-24/37 05:09 06:27-06:58/31 05:38-05:41/3 21:18 05:47-06-24/37 20:23-20:36/13 05:07 05:48-06:25/37 06:28-06:58/30 21:20 05:37-05:43/6 20:24-20:35/11 05:05 05:49-06:25/36 06:29-06:57/28 21:22 05:35-05:43/8 20:26-20:35/9 05:03 05:49-06:25/36 06:30-06:55/25 21:23 05:33-05:43/10 20:27-20:33/6 05:01 05:50-06:25/35 06:30-06:54/24 21:25 05:31-05:43/12 04:59 05:50-06-26/36 06:32-06:53/21 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 21:27 05:30-05:44/14 04:57 05:28-05:44/16 06:34-06:51/17 21:29 05:50-06-26/36 04:55 05:27-05:44/17 06:36-06:50/14 21:31 05:50-06-27/37 04:53 05:25-05:44/19 06:39-06:46/7 21:33 05:50-06-26/36 2			

Potential sun hours
Sum of minutes with flicker

3011

1744

1701

426

1231

2184

1684

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C14 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (88)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 05:24-05:43/19 05:08-05:21/13 22:09 06:03-06:27/24	05:16 06:37-07:09/32 05:50-05:52/2 21:28 05:58-06:35/37 20:33-20:47/14	06:17 06:47-07:23/36 20:14	07:17 07:46-08:35/49 18:54 18:01-18:21/20	07:23 07:55-08:23/28 16:36 08:53-09:44/51	08:24 09:04-10:15/71 15:45 14:13-14:29/16
2	04:31 05:23-05:43/20 05:09-05:21/12 22:08 06:02-06:27/25	05:18 06:35-07:10/35 20:33-20:48/15 21:26 05:57-06:34/37	06:19 06:49-07:24/35 20:11	07:19 07:48-08:35/47 18:51 18:02-18:19/17	07:25 08:52-09:47/55 16:34 07:57-08:24/27	08:26 09:06-10:16/70 15:44 14:12-14:30/18
3	04:32 05:23-05:44/21 05:09-05:21/12 22:08 06:02-06:28/26	05:20 06:34-07:10/36 20:33-20:48/15 21:24 05:57-06:33/36	06:21 06:51-07:24/33 20:09	07:21 07:50-08:35/45 18:48 18:03-18:17/14	07:27 08:52-09:50/58 16:32 08:00-08:25/25	08:27 14:11-14:30/19 15:43 09:08-10:15/67
4	04:33 05:23-05:44/21 05:10-05:21/11 22:07 06:02-06:29/27	05:21 06:33-07:11/38 20:33-20:48/15 21:22 05:57-06:32/35	06:23 06:53-07:24/31 20:06	07:23 07:52-08:36/44 18:46 18:07-18:13/6	07:29 08:51-09:51/60 16:29 08:02-08:25/23	08:29 14:08-14:31/23 15:42 09:09-10:16/67
5	04:34 05:23-05:44/21 05:11-05:21/10 22:07 06:02-06:29/27	05:23 05:58-07:12/74 21:19 20:32-20:45/13	06:25 06:55-07:24/29 20:03	07:25 07:54-08:38/44 18:43	07:31 08:50-09:52/62 08:05-08:27/22 16:27 08:36-08:41/5 15:17-15:24/7	08:31 14:06-14:32/26 15:42 09:11-10:16/65
6	04:35 05:23-05:45/22 05:12-05:20/8 22:06 06:02-06:30/28	05:25 06:30-07:13/43 20:32-20:43/11 21:17 05:58-06:29/31	06:27 06:57-07:24/27 20:01	07:27 07:56-08:39/43 18:40	07:33 08:51-09:54/63 08:07-08:27/20 16:26 08:32-08:44/12 15:16-15:27/11	08:32 14:06-14:33/27 15:41 09:13-10:17/64
7	04:36 05:24-05:45/21 05:13-05:20/7 22:05 06:02-06:30/28	05:27 06:30-07:15/45 20:32-20:41/9 21:15 06:00-06:28/28	06:29 06:58-07:23/25 19:58	07:29 07:58-08:48/50 18:38	07:36 08:51-09:55/64 08:09-08:27/18 16:23 08:31-08:45/14 15:14-15:28/14	08:34 14:05-14:33/28 15:40 09:14-10:17/63
8	04:37 05:24-05:45/21 05:14-05:20/6 22:04 06:02-06:31/29	05:29 06:29-07:17/48 20:33-20:40/7 21:13 06:02-06:26/24	06:31 07:00-07:22/22 19:55	07:32 08:00-08:51/51 18:35	07:38 08:51-09:56/65 08:12-08:27/15 16:21 08:30-08:47/17 15:06-15:30/24	08:35 14:05-14:34/29 15:40 09:16-10:17/61
9	04:38 05:24-05:45/21 05:15-05:19/4 22:03 06:01-06:31/30	05:31 06:29-07:18/49 20:34-20:38/4 21:11 06:04-06:27/23	06:33 07:02-07:21/19 19:53	07:34 08:03-08:53/50 18:32	07:40 08:51-09:56/65 08:14-08:27/13 16:19 08:29-08:47/18 15:04-15:30/26	08:36 14:04-14:34/30 15:39 09:18-10:17/59
10	04:39 05:24-05:45/21 05:16-05:18/2 22:02 06:01-06:32/31	05:33 06:06-07:19/73 21:08 20:34-20:35/1	06:35 07:04-07:20/16 19:50	07:36 08:05-08:54/49 18:30	07:42 08:51-09:57/66 08:17-08:27/10 16:17 08:29-08:48/19 15:02-15:30/28	08:38 14:05-14:36/31 15:39 09:19-10:18/59
11	04:41 05:24-05:46/22 22:01 06:02-06:33/31	05:35 06:08-07:20/72 21:06	06:37 07:06-07:18/12 19:47	07:38 08:07-08:55/48 18:27	07:44 08:52-09:58/66 08:19-08:26/7 16:15 08:29-08:49/20 15:02-15:31/29	08:39 14:05-14:36/31 15:39 09:20-10:18/58
12	04:42 05:24-05:46/22 22:00 06:01-06:33/32	05:37 06:09-07:20/71 21:04	06:39 07:08-07:16/8 19:45	07:40 08:09-08:55/46 18:25	07:46 08:28-09:58/90 15:01-15:31/30 16:13 08:21-08:25/4	08:40 14:05-14:37/32 15:38 09:23-10:19/56
13	04:43 05:24-05:46/22 21:59 06:01-06:33/32	05:39 06:11-07:21/70 21:01	06:41 07:10-07:11/1 19:42	07:42 08:11-08:55/44 18:22	07:48 08:29-09:59/90 15:02-15:32/30 16:11 08:24-08:25/1	08:41 14:05-14:37/32 15:38 09:23-10:19/56
14	04:45 05:24-05:46/22 21:58 06:00-06:34/34	05:41 06:13-07:21/68 20:59	06:43 07:50-08:10/20 19:39	07:44 08:13-08:55/42 18:20	07:51 08:29-09:59/90 16:09 15:01-15:31/30	08:43 14:06-14:38/32 15:38 09:24-10:21/57
15	04:46 05:25-05:46/21 21:56 06:01-06:35/34	05:43 06:15-07:21/66 20:57	06:45 07:47-08:13/26 19:37 18:45-18:51/6	07:46 08:16-08:56/40 18:17	07:53 08:30-09:59/89 16:08 15:01-15:30/29	08:44 14:06-14:38/32 15:38 09:25-10:22/57
16	04:48 05:25-05:48/23 21:55 06:01-06:35/34	05:45 06:17-07:22/65 20:54	06:47 07:45-08:15/30 19:34 18:43-18:54/11	07:48 08:18-08:55/37 18:14	07:55 08:31-10:01/90 16:06 15:01-15:29/28	08:45 14:06-14:39/33 15:38 09:26-10:23/57
17	04:49 05:26-05:50/24 21:54 06:00-06:35/35	05:47 06:19-07:22/63 20:52	06:49 07:44-08:16/32 19:31 18:41-18:55/14	07:50 08:20-08:55/35 18:12	07:57 08:33-10:03/90 16:04 15:01-15:27/26	08:45 14:06-14:39/33 15:38 09:27-10:24/57
18	04:51 05:27-05:51/24 21:52 06:00-06:36/36	05:49 06:21-07:22/61 20:49	06:51 07:42-08:17/35 18:12-18:19/7 19:29 18:40-18:55/15	07:52 08:22-08:54/32 18:09	07:59 08:36-10:05/89 16:02 15:01-15:24/23	08:46 14:07-14:40/33 15:38 09:28-10:24/56
19	04:53 05:28-05:52/24 21:51 06:00-06:35/35	05:51 06:22-07:21/59 20:47	06:53 07:41-08:18/37 18:09-18:22/13 19:26 18:38-18:54/16	07:55 08:25-08:54/29 18:07	08:01 08:38-10:06/88 16:01 15:03-15:23/20	08:47 14:07-14:39/32 15:38 09:28-10:25/57
20	04:54 05:30-05:53/23 21:49 06:00-06:36/36	05:53 06:24-07:21/57 20:45	06:55 07:40-08:19/39 18:05-18:23/18 19:23 18:37-18:52/15	07:57 08:27-08:53/26 18:04	08:03 08:40-10:07/87 15:59 15:03-15:21/18	08:48 14:07-14:40/33 15:39 09:29-10:25/56
21	04:56 05:31-05:53/22 21:48 06:00-06:36/36	05:55 06:26-07:20/54 20:42	06:57 07:40-08:19/39 18:03-18:24/21 19:20 18:37-18:50/13	07:59 08:29-08:53/24 18:02	08:05 08:43-10:08/85 15:58 15:03-15:19/16	08:48 14:08-14:41/33 15:39 09:30-10:26/56
22	04:58 05:33-05:54/21 21:46 06:00-06:36/36	05:57 06:28-07:20/52 20:40	06:59 07:39-08:19/40 18:02-18:25/23 19:18 18:37-18:47/10	08:01 08:31-08:56/25 17:59	08:07 08:45-10:10/85 15:56 15:05-15:18/13	08:49 14:08-14:41/33 15:40 09:30-10:26/56
23	04:59 05:35-05:54/19 21:45 06:00-06:36/36	05:59 06:30-07:19/49 20:37	07:01 07:39-08:19/40 18:01-18:25/24 19:15 18:38-18:44/6	08:03 08:34-08:58/24 17:57	08:09 08:47-10:10/83 15:55 15:06-15:16/10	08:49 14:09-14:42/33 15:40 09:31-10:27/56
24	05:01 05:36-05:54/18 06:48-06:58/10 21:43 06:00-06:36/36	06:01 06:36-07:19/43 20:35 06:32-06:33/1	07:03 07:39-08:25/46 18:00-18:25/25 19:12 18:39-18:42/3	08:05 08:36-09:01/25 17:55 10:06-10:15/9	08:11 08:49-10:11/82 15:53 15:07-15:14/7	08:50 14:10-14:42/32 15:41 09:31-10:27/56
25	05:03 05:38-05:55/17 06:46-07:01/15 21:41 06:01-06:37/36	06:03 06:44-07:18/34 20:32	07:05 07:39-08:29/50 19:10 17:59-18:25/26	07:07 07:38-08:04/26 16:52 09:02-09:19/17	08:13 08:51-10:11/80 15:52 15:08-15:12/4	08:50 14:10-14:43/33 15:41 09:31-10:27/56
26	05:05 06:00-06:36/36 06:43-07:02/19 21:39 05:39-05:54/15	06:05 06:44-07:17/33 20:29	07:07 07:39-08:31/52 19:07 17:59-18:25/26	07:09 07:41-08:08/27 16:50 09:00-09:22/22	08:15 08:54-10:12/78 15:51 15:10-15:11/1	08:50 14:10-14:43/33 15:42 09:31-10:28/57
27	05:06 06:01-06:36/35 06:42-07:04/22 21:37 05:41-05:54/13	06:07 06:44-07:16/32 20:27	07:09 07:39-08:32/53 19:04 17:59-18:24/25	07:12 07:43-08:13/30 16:47 08:58-09:24/26	08:17 08:56-10:13/77 15:49	08:51 14:11-14:43/32 15:43 09:31-10:28/57
28	05:08 06:01-06:36/35 06:41-07:06/25 21:36 05:43-05:54/11	06:09 06:43-07:13/30 20:24	07:11 07:40-08:33/53 19:02 17:59-18:24/25	07:14 07:45-08:14/29 16:45 08:56-09:25/29	08:19 08:58-10:14/76 15:48	08:51 14:11-14:44/33 15:44 09:31-10:28/57
29	05:10 05:59-06:36/37 06:39-07:06/27 21:34 05:44-05:53/9 20:37-20:44/7	06:11 06:43-07:18/35 20:22	07:13 07:42-08:34/52 18:59 18:00-18:24/24	07:16 07:48-08:17/29 16:43 08:55-09:27/32	08:21 09:00-10:14/74 15:47 14:16-14:25/9	08:51 14:12-14:44/32 15:45 09:31-10:28/57
30	05:12 05:59-06:35/36 06:39-07:07/28 21:32 05:46-05:53/7 20:35-20:46/11	06:13 06:44-07:21/37 20:19	07:15 07:44-08:34/50 18:56 18:00-18:23/23	07:18 07:50-08:19/29 16:41 08:54-09:30/36	08:22 09:02-10:15/73 15:46 14:14-14:27/13	08:51 14:13-14:45/32 15:46 09:31-10:27/56
31	05:14 05:59-06:35/36 06:38-07:09/31 21:30 05:48-05:53/5 20:35-20:47/12	06:15 06:45-07:22/37 20:17	07:17 07:45-08:34/51 18:57 18:00-18:23/23	07:20 07:53-08:22/29 16:38 08:53-09:33/40	08:23 09:03-10:16/74 15:47 14:14-14:27/13	08:51 14:14-14:46/32 15:47 09:32-10:28/56
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	1893	1919	1377	1416	3035	2761

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C15 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (89)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:51 14:07-14:23/16 14:37-14:57/20 15:48 13:55-13:58/3 10:12-10:22/10	08:15 08:45-09:26/41 16:45	07:11 07:37-08:02/25 17:48 15:41-16:12/31	06:49 07:14-07:47/33 19:53	05:33 06:12-06:22/10 20:55 06:00-06:06/6	04:36 05:22-05:27/5 21:52 20:30-20:43/13
2	08:50 14:07-14:23/16 10:14-10:22/8 15:49 14:37-14:57/20	08:13 08:43-09:24/41 16:47 16:12-16:13/1	07:08 07:34-07:54/20 17:50 15:42-16:10/28	06:46 07:11-07:45/34 19:55	05:30 06:14-06:19/5 20:57 05:58-06:07/9	04:35 05:20-05:30/10 21:54 20:31-20:42/11
3	08:50 14:09-14:23/14 10:15-10:21/6 15:51 14:38-14:58/20	08:11 08:41-09:13/32 16:50 16:11-16:15/4	07:06 07:32-07:53/21 17:52 15:44-16:08/24	06:43 07:09-07:44/35 19:57	05:28 05:56-06:07/11 20:59	04:34 05:18-05:32/14 21:55 20:33-20:41/8
4	08:50 14:09-14:23/14 15:52 14:39-14:57/18	08:09 08:39-09:14/35 16:52 16:10-16:18/8	07:03 07:29-07:51/22 17:54 15:46-16:05/19	06:41 07:06-07:41/35 19:59	05:26 05:54-06:07/13 21:01	04:33 05:18-05:34/16 21:56 20:34-20:39/5
5	08:49 14:11-14:23/12 15:53 14:40-14:59/19	08:07 08:37-09:14/37 15:53-15:59/6 16:54 16:09-16:20/11	07:00 07:26-07:49/23 15:50-16:01/11 17:56 17:21-17:27/6	06:38 07:03-07:40/37 20:01	05:23 05:52-06:07/15 21:04	04:32 05:17-05:35/18 21:58
6	08:49 14:12-14:23/11 15:55 14:40-14:59/19	08:05 08:35-09:13/38 15:49-16:04/15 16:56 16:09-16:23/14	06:58 07:24-07:48/24 17:58 17:19-17:30/11	06:35 07:01-07:38/37 20:03	05:21 05:51-06:07/16 21:06	04:31 05:16-05:36/20 21:59
7	08:48 14:14-14:22/8 15:56 14:41-14:59/18	08:03 08:35-09:13/38 15:46-16:07/21 16:59 16:09-16:25/16	06:55 07:21-07:46/25 18:00 17:17-17:32/15	06:33 06:58-07:35/37 20:05	05:19 05:52-06:06/14 21:08	04:30 05:16-05:37/21 22:00
8	08:47 14:16-14:20/4 15:58 14:42-14:59/17	08:00 08:35-09:13/38 17:01 15:45-16:27/42	06:53 07:18-07:44/26 18:03 17:15-17:34/19	06:30 06:58-07:25/27 20:07	05:17 05:52-06:05/13 21:10 20:33-20:36/3	04:29 05:15-05:38/23 22:01
9	08:47 14:42-14:59/17 16:00	07:58 08:34-09:12/38 17:03 15:42-16:27/45	06:50 07:16-07:42/26 18:05 17:14-17:35/21	06:28 06:57-07:22/25 20:10	05:15 05:53-06:04/11 21:12 20:30-20:38/8	04:29 05:14-05:38/24 22:02
10	08:46 14:44-14:59/15 16:01	07:56 08:35-09:11/36 17:05 15:42-16:27/45	06:47 07:13-07:36/23 18:07 17:13-17:35/22	06:25 06:56-07:18/22 20:12	05:13 05:54-06:03/9 21:14 20:28-20:40/12	04:28 05:14-05:39/25 22:03
11	08:45 14:45-14:59/14 16:03	07:54 08:35-09:10/35 17:08 15:40-16:26/46	06:45 07:10-07:35/25 18:09 17:12-17:35/23	06:22 06:57-07:18/21 20:14	05:11 05:57-06:00/3 21:16 20:27-20:41/14	04:27 05:14-05:40/26 22:04
12	08:44 14:45-14:58/13 16:05	07:52 08:35-09:07/32 17:10 15:39-16:26/47	06:42 07:11-07:34/23 18:11 17:12-17:34/22	06:20 06:57-07:17/20 20:16	05:09 20:25-20:43/18 21:18	04:27 05:14-05:40/26 22:05
13	08:43 14:47-14:57/10 16:06	07:49 08:36-09:02/26 17:12 15:39-16:25/46	06:39 07:11-07:33/22 18:13 17:12-17:35/23	06:17 06:57-07:17/20 20:18	05:07 20:25-20:45/20 21:20	04:26 05:14-05:41/27 22:06
14	08:42 09:18-09:19/1 16:08 14:50-14:57/7	07:47 08:36-08:58/22 17:14 15:38-16:23/45	06:37 07:11-07:30/19 18:15 17:12-17:34/22	06:14 06:58-07:15/17 20:20	05:05 20:25-20:46/21 21:21	04:26 05:14-05:42/28 22:06
15	08:41 09:16-09:20/4 16:10	07:45 08:38-08:55/17 17:17 15:38-16:17/39	06:34 07:13-07:27/14 18:17 17:12-17:33/21	06:12 06:59-07:14/15 20:22	05:03 20:24-20:46/22 21:23	04:26 05:14-05:42/28 22:07
16	08:40 09:15-09:22/7 16:12	07:43 08:39-08:53/14 17:19 15:37-16:17/40	06:32 07:15-07:21/6 18:20 17:13-17:32/19	06:09 07:00-07:11/11 20:24	05:01 20:24-20:46/22 21:25	04:26 05:13-05:42/29 22:08
17	08:39 09:14-09:24/10 16:14	07:40 08:41-08:52/11 17:21 15:37-16:17/40	06:29 17:14-17:30/16 18:22	06:07 07:04-07:08/4 20:26	04:59 20:24-20:47/23 21:27	04:25 05:13-05:42/29 22:08
18	08:37 09:12-09:25/13 16:16	07:38 15:36-16:17/41 17:23	06:26 17:15-17:28/13 18:24	06:04 20:28	04:57 20:24-20:47/23 21:29	04:25 05:14-05:42/28 22:09
19	08:36 09:10-09:25/15 16:18	07:35 15:36-16:18/42 17:26 08:03-08:04/1	06:24 17:20-17:25/5 18:26	06:02 20:30	04:55 20:23-20:46/23 21:31	04:25 05:14-05:43/29 22:10
20	08:35 09:09-09:27/18 16:20	07:33 15:36-16:17/41 17:28 08:00-08:05/5	06:21 06:46-06:49/3 18:28	05:59 20:32	04:53 20:24-20:47/23 21:33	04:25 05:15-05:44/29 22:10
21	08:33 09:07-09:27/20 16:22	07:31 07:58-08:06/8 17:30 15:36-16:18/42	06:18 06:43-06:50/7 18:30	05:57 20:35	04:52 20:23-20:46/23 21:35	04:25 05:15-05:44/29 22:10
22	08:32 09:05-09:27/22 16:24	07:28 07:55-08:06/11 17:32 15:36-16:17/41	06:15 06:41-06:51/10 18:32	05:54 06:21-06:25/4 20:37	04:50 20:24-20:47/23 21:36	04:26 05:15-05:44/29 22:10
23	08:30 09:03-09:28/25 16:26	07:26 07:53-08:07/14 17:34 15:37-16:17/40	06:13 06:38-06:50/12 18:34	05:52 06:18-06:25/7 20:39	04:48 20:25-20:47/22 21:38	04:26 05:15-05:44/29 22:10
24	08:29 09:02-09:29/27 16:28	07:23 07:50-08:07/17 17:37 15:37-16:16/39	06:10 06:35-06:50/15 18:36	05:49 06:16-06:26/10 20:41	04:47 20:24-20:46/22 21:40	04:26 05:16-05:44/28 22:10
25	08:27 09:00-09:29/29 16:30	07:21 07:48-08:07/19 17:39 15:37-16:15/38	06:07 06:33-06:51/18 18:38	05:47 06:14-06:26/12 20:43	04:45 20:25-20:46/21 21:42	04:26 05:15-05:44/29 22:10
26	08:25 08:58-09:29/31 16:32	07:18 07:45-08:06/21 17:41 15:38-16:15/37	06:05 06:30-06:51/21 18:40	05:44 06:12-06:27/15 20:45	04:44 20:26-20:46/20 21:43	04:27 05:15-05:44/29 22:10
27	08:24 08:56-09:29/33 16:34	07:16 07:42-08:05/23 17:43 15:38-16:14/36	06:02 06:27-06:50/23 18:43	05:42 06:10-06:26/16 20:47	04:42 20:26-20:45/19 21:45	04:27 05:16-05:44/28 22:10
28	08:22 08:54-09:29/35 16:36	07:13 07:40-08:04/24 17:45 15:40-16:13/33	05:59 06:25-06:51/26 18:45	05:40 06:10-06:25/15 20:49	04:41 20:27-20:45/18 21:46	04:28 05:17-05:45/28 22:10
29	08:20 08:52-09:29/37 16:39		06:57 07:22-07:50/28 19:47	05:37 06:11-06:25/14 20:51	04:40 20:27-20:44/17 21:48	04:29 05:17-05:44/27 22:10
30	08:18 08:50-09:28/38 16:41		06:54 07:19-07:49/30 19:49	05:35 06:12-06:24/12 20:53	04:38 20:28-20:44/16 21:49	04:29 05:18-05:44/26 22:09
31	08:17 08:48-09:28/40 16:43		06:51 07:17-07:49/32 19:51		04:37 20:29-20:43/14 21:51	
Potential sun hours	235	266	366	426	508	528
Sum of minutes with flicker	754	1635	940	538	582	849

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C15 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (89)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 05:18-05:45/27 22:09	05:16 20:36-20:53/17 21:28	06:17 06:56-07:17/21 20:14	07:17 07:50-08:13/23 18:54 17:52-18:14/22	07:22 08:04-08:41/37 16:36 15:11-15:57/46	08:24 14:27-14:41/14 15:45
2	04:31 05:18-05:44/26 22:08	05:18 06:06-06:12/6 21:26 20:37-20:51/14	06:19 06:55-07:17/22 20:11	07:19 07:49-08:13/24 18:51 17:51-18:14/23	07:25 08:04-08:41/37 16:34 15:12-15:56/44	08:26 14:26-14:41/15 15:44
3	04:32 05:19-05:44/25 22:08	05:20 06:04-06:14/10 21:24 20:39-20:49/10	06:21 06:55-07:20/25 20:09	07:21 07:50-08:14/24 18:48 17:51-18:13/22	07:27 08:05-08:43/38 16:32 15:15-15:56/41	08:27 14:26-14:42/16 15:43
4	04:33 05:20-05:43/23 22:07	05:21 06:03-06:15/12 21:22 20:41-20:48/7	06:23 06:55-07:22/27 20:06	07:23 07:52-08:13/21 18:46 17:51-18:12/21	07:29 08:05-08:43/38 15:16-15:36/20 16:29 15:39-15:55/16	08:29 14:01-14:04/3 15:42 14:26-14:43/17
5	04:34 05:21-05:43/22 22:07	05:23 06:02-06:16/14 21:19	06:25 06:55-07:23/28 20:03 07:24-07:32/8	07:25 07:54-08:20/26 18:43 17:51-18:11/20	07:31 08:05-08:43/38 15:19-15:33/14 16:27 15:39-15:52/13	08:31 13:59-14:07/8 15:42 14:26-14:44/18
6	04:35 05:22-05:43/21 22:06	05:25 06:01-06:16/15 21:17	06:27 06:57-07:34/37 20:01	07:27 07:56-08:22/26 18:40 17:52-18:09/17	07:33 08:07-08:44/37 15:25-15:28/3 16:25 15:40-15:50/10	08:32 13:59-14:09/10 15:41 14:26-14:45/19
7	04:36 05:23-05:42/19 22:05	05:27 06:01-06:16/15 21:15	06:29 06:58-07:35/37 19:58	07:29 07:58-08:23/25 18:38 17:53-18:06/13	07:36 08:09-08:43/34 16:23 15:40-15:48/8	08:34 13:57-14:09/12 15:40 14:26-14:45/19
8	04:37 05:24-05:41/17 22:04	05:29 06:02-06:16/14 21:13	06:31 07:00-07:36/36 19:55	07:32 08:00-08:23/23 18:35 17:55-18:04/9	07:38 08:12-08:44/32 15:41-15:45/4 16:21 08:45-08:47/2	08:35 13:58-14:11/13 15:40 14:27-14:46/19
9	04:38 05:25-05:40/15 22:03	05:31 06:04-06:16/12 21:11	06:33 07:02-07:37/35 19:53	07:34 08:03-08:25/22 18:32 16:22-16:38/16	07:40 08:14-08:55/41 16:19	08:36 13:57-14:11/14 10:03-10:09/6 15:39 14:26-14:46/20
10	04:39 05:26-05:39/13 22:02	05:33 06:06-06:16/10 21:08	06:35 07:04-07:39/35 19:50	07:36 08:05-08:27/22 18:30 16:20-16:41/21	07:42 08:16-08:58/42 16:17	08:38 13:57-14:13/16 10:03-10:11/8 15:39 14:27-14:47/20
11	04:41 05:29-05:38/9 22:01	05:35 06:23-06:30/7 21:06 06:08-06:16/8	06:37 07:06-07:40/34 19:47	07:38 08:07-08:28/21 18:27 16:17-16:43/26	07:44 08:19-08:59/40 16:15	08:39 13:57-14:13/16 14:27-14:47/20 15:39 13:46-13:48/2 10:02-10:12/10
12	04:42 05:30-05:32/14 22:00	05:37 06:20-06:31/11 21:04 06:09-06:14/5	06:39 07:08-07:40/32 19:45	07:40 08:09-08:33/24 18:25 16:15-16:44/29	07:46 08:21-08:59/38 16:13	08:40 13:57-14:14/17 14:27-14:47/20 15:38 13:44-13:50/6 10:03-10:13/10
13	04:43 05:37-05:32/15 21:59	05:39 06:19-06:32/13 21:01 06:11-06:13/2	06:41 07:10-07:41/31 19:42	07:42 08:11-08:35/24 18:22 16:13-16:45/32	07:48 08:24-09:01/37 16:11	08:41 13:58-14:15/17 14:29-14:48/19 15:38 13:44-13:52/8 10:02-10:14/12
14	04:45 05:36-05:37/17 21:58	05:41 06:18-06:33/15 20:59	06:43 07:12-07:41/29 19:39	07:44 08:13-08:37/24 18:19 16:11-16:46/35	07:51 08:26-09:01/35 16:09	08:42 13:58-14:16/18 14:29-14:49/20 15:38 13:44-13:53/9 10:02-10:15/13
15	04:46 05:35-05:33/18 21:56	05:43 06:17-06:33/16 20:57	06:45 07:14-07:40/26 19:37	07:46 08:16-08:38/22 18:17 16:11-16:47/36	07:53 08:28-09:01/33 16:08	08:44 13:58-14:16/18 14:29-14:49/20 15:38 13:44-13:54/10 10:02-10:15/13
16	04:48 05:36-05:34/18 21:55	05:45 06:17-06:33/16 20:54	06:47 07:16-07:40/24 19:34	07:48 08:18-08:38/20 18:14 16:10-16:47/37	07:55 08:31-09:02/31 16:06	08:44 13:58-14:17/19 14:30-14:49/19 10:03-10:16/13 15:38 13:44-13:55/11 10:18-10:21/3
17	04:49 05:35-05:35/20 21:54	05:47 06:19-06:33/14 20:52	06:49 07:18-07:39/21 19:31	07:50 08:20-08:38/18 18:12 16:09-16:48/39	07:57 08:33-09:02/29 16:04	08:45 13:59-14:17/18 14:30-14:50/20 10:03-10:17/14 15:38 13:44-13:56/12 10:18-10:22/4
18	04:51 05:35-05:36/21 21:52	05:49 06:21-06:33/12 20:49	06:51 07:20-07:38/18 19:29	07:52 08:22-08:38/16 18:09 16:08-16:48/40	07:59 08:36-09:03/27 16:02	08:46 13:59-14:18/19 14:31-14:51/20 15:38 13:44-13:57/13 10:03-10:24/21
19	04:53 05:34-05:36/22 21:51	05:51 06:22-06:31/9 20:47	06:53 07:22-07:37/15 19:26	07:54 08:25-08:38/13 18:07 16:07-16:48/41	08:01 08:38-09:03/25 16:01	08:47 13:59-14:18/19 14:30-14:50/20 15:38 13:44-13:57/13 10:03-10:24/21
20	04:54 05:35-05:37/22 21:49	05:53 06:24-06:31/7 20:45	06:55 07:24-07:37/13 19:23	07:57 08:27-08:37/10 18:04 16:07-16:48/41	08:03 08:40-09:02/22 15:59	08:48 14:00-14:19/19 14:31-14:51/20 15:39 13:45-13:58/13 10:04-10:25/21
21	04:56 05:34-05:36/22 21:48	05:55 06:26-06:29/3 20:42	06:57 07:26-07:36/10 19:20	07:59 08:29-08:36/7 18:02 16:06-16:48/42	08:05 08:42-09:02/20 15:58	08:48 14:01-14:20/19 14:32-14:52/20 15:39 13:45-13:58/13 10:05-10:26/21
22	04:58 05:34-05:37/23 21:46	05:57 07:06-07:11/5 20:40	06:59 07:28-07:35/7 19:18	08:01 16:06-16:48/42 17:59 08:31-08:35/4	08:07 08:45-09:03/18 15:56	08:49 14:01-14:20/19 14:32-14:52/20 15:39 13:45-13:58/13 10:05-10:26/21
23	04:59 05:34-05:37/23 21:44	05:59 07:07-07:14/11 20:37	07:01 07:30-07:34/4 19:15	08:03 16:07-16:48/41 17:57	08:09 08:47-09:02/15 15:55	08:49 14:01-14:20/19 14:32-14:52/20 15:40 13:45-13:59/14 10:06-10:27/21
24	05:01 05:34-05:37/23 21:43	06:01 07:08-07:15/15 20:35	07:03 08:05-09:14-09:19/5 19:12	08:05 09:14-09:19/5 17:55 16:06-16:47/41	08:11 08:49-09:02/13 15:53	08:50 14:02-14:21/19 14:33-14:53/20 15:41 13:47-14:00/13 10:06-10:27/21
25	05:03 05:33-05:37/24 21:41	06:03 07:09-07:16/16 20:32	07:05 17:59-18:10/11 19:10	07:07 08:10-08:22/12 16:52 15:06-15:47/41	08:13 08:51-09:01/10 15:52	08:50 14:02-14:21/19 14:34-14:53/19 15:41 13:47-14:00/13 10:06-10:27/21
26	05:05 05:34-05:37/23 21:39	06:05 07:06-07:11/5 20:29	07:07 17:56-18:12/16 19:07	07:09 08:09-08:24/15 16:50 15:07-15:47/40	08:15 08:53-09:00/7 15:51	08:50 14:03-14:21/18 14:34-14:54/20 10:07-10:21/14 15:42 13:48-14:00/12 10:22-10:26/4
27	05:06 05:34-05:37/23 21:37	06:07 07:03-07:14/11 20:27	07:09 17:55-18:13/18 19:04 07:59-08:01/2	07:12 08:07-08:25/18 15:07-15:46/39 16:47 15:47-15:49/2	08:17 08:56-09:00/4 15:49	08:51 14:03-14:22/19 14:34-14:54/20 10:07-10:21/14 15:43 13:48-14:00/12 10:23-10:26/3
28	05:08 05:34-05:36/22 21:36	06:09 07:00-07:15/15 20:24	07:11 07:54-08:05/11 19:02 17:53-18:13/20	07:14 08:05-08:29/24 16:45 15:07-15:53/46	08:19 08:58-08:59/1 15:48 14:30-14:36/6	08:51 14:04-14:22/18 14:35-14:55/20 15:44 13:49-14:00/11 10:08-10:21/13
29	05:10 05:35-05:36/21 21:34	06:11 06:58-07:16/18 20:22	07:13 07:52-08:10/18 18:59 17:52-18:14/22	07:16 08:05-08:32/27 16:43 15:09-15:55/46	08:20 14:28-14:38/10 15:47	08:51 14:05-14:22/17 14:36-14:55/19 15:45 13:50-14:00/10 10:09-10:22/13
30	05:12 05:35-05:36/21 21:32	06:13 06:57-07:17/20 20:19	07:15 07:51-08:12/21 18:56 17:52-18:15/23	07:18 08:05-08:37/32 16:41 15:09-15:55/46	08:22 14:27-14:40/13 15:46	08:51 14:05-14:23/18 14:36-14:56/20 15:46 13:52-14:00/8 10:10-10:22/12
31	05:14 05:36-05:35/19 21:30	06:15 06:56-07:17/21 20:17	06:15 06:56-07:17/21 18:38 15:10-15:56/46	07:20 08:04-08:39/35 16:38 15:10-15:56/46		08:51 14:05-14:22/17 14:36-14:56/20 15:47 13:52-13:59/7 10:11-10:22/11
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	656	384	737	1619	1029	1632

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C16 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (90)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:51 15:03-15:05/2 15:48 12:56-13:40/44	08:15 08:45-08:59/14 16:45 09:02-09:09/7	07:11 07:37-07:48/11 17:47	06:49 19:53	05:33 19:57-20:13/16 20:55 06:37-06:53/16	04:36 20:04-20:38/34 21:52
2	08:50 15:02-15:06/4 15:49 12:55-13:40/45	08:13 08:43-09:00/17 16:47	07:08 07:34-07:47/13 17:50	06:46 19:55	05:30 19:58-20:12/14 20:57 06:39-06:50/11	04:35 20:04-20:38/34 21:54
3	08:50 15:03-15:08/5 15:51 12:56-13:41/45	08:11 08:41-09:00/19 16:50	07:06 07:33-07:47/14 17:52	06:43 19:57	05:28 19:59-20:11/12 20:59	04:34 20:05-20:37/32 21:55
4	08:50 15:02-15:09/7 15:52 12:57-13:41/44	08:09 08:39-09:00/21 16:52	07:03 07:33-07:45/12 17:54	06:41 19:59	05:26 20:01-20:09/8 21:01	04:33 20:05-20:37/32 21:56
5	08:49 15:02-15:11/9 15:53 12:57-13:41/44	08:07 08:37-09:00/23 16:54	07:00 07:34-07:43/9 17:56	06:38 20:01	05:23 21:03	04:32 20:06-20:38/32 21:58
6	08:49 15:03-15:13/10 15:55 12:58-13:42/44	08:05 08:34-08:59/25 16:56	06:58 17:58	06:35 20:03	05:21 21:06	04:31 20:06-20:38/32 21:59
7	08:48 15:03-15:15/12 15:56 12:58-13:42/44	08:02 08:32-08:59/27 16:59	06:55 18:00	06:33 20:05	05:19 05:48-05:50/2 21:08 20:14-20:26/12	04:30 20:06-20:37/31 22:00
8	08:47 15:03-15:16/13 15:58 12:59-13:43/44	08:00 08:32-08:58/26 17:01 16:12-16:24/12	06:53 18:03	06:30 20:07	05:17 05:46-05:52/6 21:10 20:12-20:28/16	04:29 20:07-20:38/31 22:01
9	08:47 15:03-15:18/15 15:59 12:59-13:43/44	07:58 08:32-08:55/23 17:03 16:10-16:27/17	06:50 18:05	06:27 20:10	05:15 05:44-05:52/8 21:12 20:10-20:30/20	04:29 20:07-20:37/30 22:02
10	08:46 15:03-15:20/17 16:01 13:00-13:44/44	07:56 08:33-08:51/18 17:05 16:09-16:29/20	06:47 18:07	06:25 20:12	05:13 05:42-05:53/11 21:14 20:08-20:31/23	04:28 20:08-20:38/30 22:03
11	08:45 15:03-15:22/19 16:03 13:00-13:44/44	07:54 08:34-08:48/14 17:08 16:07-16:30/23	06:45 07:10-07:13/3 18:09	06:22 20:14	05:11 05:40-05:53/13 21:16 20:07-20:32/25	04:27 20:08-20:37/29 22:04
12	08:44 15:03-15:23/20 16:05 13:00-13:44/44	07:52 08:35-08:46/11 17:10 16:06-16:31/25	06:42 07:08-07:14/6 18:11	06:20 20:16	05:08 05:38-05:53/15 21:18 20:06-20:33/27	04:27 20:08-20:37/29 22:05
13	08:43 15:03-15:23/20 16:06 13:01-13:44/43	07:49 08:37-08:44/7 17:12 16:06-16:32/26	06:39 07:05-07:15/10 18:13	06:17 06:44-06:55/11 20:18	05:06 05:37-05:54/17 21:20 20:05-20:34/29	04:26 20:09-20:38/29 22:06
14	08:42 15:04-15:24/20 16:08 13:02-13:45/43	07:47 16:05-16:32/27 17:14	06:37 07:02-07:15/13 18:15	06:14 06:40-06:57/17 20:20	05:05 05:36-05:54/18 21:21 20:05-20:35/30	04:26 20:10-20:38/28 22:06
15	08:41 15:04-15:24/20 16:10 13:02-13:44/42	07:45 16:05-16:33/28 17:17	06:34 07:00-07:15/15 18:17	06:12 06:39-06:59/20 20:22	05:03 05:36-05:54/18 21:23 20:04-20:35/31	04:26 20:09-20:37/28 22:07
16	08:40 15:05-15:25/20 16:12 13:03-13:45/42	07:42 16:04-16:33/29 17:19	06:31 06:57-07:14/17 18:20	06:09 06:37-06:59/22 20:24	05:01 05:36-05:53/17 21:25 20:03-20:36/33	04:26 20:10-20:37/27 22:08
17	08:39 15:04-15:24/20 16:14 13:03-13:44/41	07:40 16:04-16:34/30 17:21	06:29 06:54-07:13/19 18:22	06:07 06:36-07:01/25 20:26	04:59 05:37-05:54/17 21:27 20:03-20:37/34	04:25 20:10-20:38/28 22:08
18	08:37 15:06-15:25/19 16:16 13:04-13:45/41	07:38 16:04-16:33/29 17:23	06:26 06:51-07:12/21 18:24	06:04 06:35-07:00/25 20:28	04:57 05:37-05:53/16 21:29 20:03-20:37/34	04:25 20:10-20:38/28 22:09
19	08:36 15:06-15:25/19 16:18 13:04-13:44/40	07:35 16:04-16:33/29 17:25	06:23 06:49-07:11/22 18:26	06:02 06:34-07:01/27 20:30	04:55 05:38-05:53/15 21:31 20:02-20:36/34	04:25 20:11-20:38/27 22:09
20	08:35 15:06-15:24/18 16:20 13:05-13:44/39	07:33 16:04-16:33/29 17:28	06:21 06:46-07:08/22 18:28	05:59 06:34-07:02/28 20:32	04:53 05:38-05:52/14 21:33 20:02-20:37/35	04:25 20:11-20:38/27 22:09
21	08:33 09:07-09:10/3 13:06-13:45/39 16:22 15:08-15:25/17	07:31 16:05-16:33/28 17:30	06:18 06:43-07:06/23 18:30	05:57 06:33-07:01/28 20:34	04:52 05:39-05:52/13 21:35 20:02-20:37/35	04:25 20:12-20:39/27 22:10
22	08:32 09:05-09:11/6 13:07-13:44/37 16:24 15:09-15:24/15	07:28 16:05-16:31/26 17:32	06:15 06:41-06:56/15 18:32 06:58-07:04/6	05:54 20:02-20:06/4 20:37 06:33-07:01/28	04:50 05:40-05:50/10 21:36 20:02-20:38/36	04:26 20:12-20:39/27 22:10
23	08:30 09:03-09:11/8 13:08-13:43/35 16:26 15:10-15:23/13	07:26 16:06-16:30/24 17:34	06:13 06:38-06:55/17 18:34	05:52 19:59-20:08/9 20:39 06:32-07:00/28	04:48 05:42-05:49/7 21:38 20:03-20:38/35	04:26 20:12-20:39/27 22:10
24	08:29 09:02-09:13/11 13:09-13:43/34 16:28 15:11-15:22/11	07:23 16:07-16:29/22 17:37	06:10 06:35-06:53/18 18:36	05:49 19:58-20:10/12 20:41 06:33-07:00/27	04:47 20:02-20:38/36 21:40	04:26 20:12-20:39/27 22:10
25	08:27 09:00-09:13/13 13:10-13:42/32 16:30 15:13-15:19/6	07:21 16:08-16:27/19 17:39	06:07 06:34-06:52/18 18:38	05:47 19:58-20:12/14 20:43 06:33-07:00/27	04:45 20:02-20:38/36 21:41	04:26 20:12-20:40/28 22:10
26	08:25 08:58-09:13/15 16:32 13:12-13:42/30	07:18 16:11-16:25/14 17:41 07:45-07:47/2	06:05 06:34-06:50/16 18:40	05:44 19:57-20:13/16 20:45 06:33-06:59/26	04:44 20:03-20:38/35 21:43	04:27 20:12-20:39/27 22:10
27	08:24 08:57-09:13/16 16:34 13:14-13:41/27	07:16 16:15-16:20/5 17:43 07:42-07:47/5	06:02 06:34-06:49/15 18:43	05:42 19:57-20:15/18 20:47 06:33-06:58/25	04:42 20:02-20:37/35 21:45	04:27 20:13-20:40/27 22:10
28	08:22 08:58-09:13/15 13:16-13:39/23 16:36 08:54-08:56/2	07:13 07:40-07:48/8 17:45	05:59 06:36-06:48/12 18:45	05:40 19:57-20:15/18 20:49 06:34-06:57/23	04:41 20:03-20:38/35 21:46	04:28 20:12-20:40/28 22:10
29	08:20 08:59-09:13/14 13:18-13:38/20 16:39 08:52-08:58/6	07:11 07:37-07:45/8 19:47	06:57 07:37-07:45/8 19:49	05:37 19:56-20:14/18 20:53 06:37-06:55/18	04:40 20:03-20:38/35 21:48	04:29 20:12-20:41/29 22:10
30	08:18 08:50-08:59/9 13:21-13:34/13 16:41 09:00-09:12/12	07:09 07:37-07:45/8 19:49	06:54 19:49	05:35 19:56-20:13/17 20:53 06:37-06:55/18	04:38 20:03-20:38/35 21:49	04:29 20:13-20:41/28 22:09
31	08:16 08:48-08:59/11 16:43 09:01-09:12/11	07:07 07:37-07:45/8 19:51	06:51 19:51	05:33 19:56-20:13/17 20:53 06:37-06:55/18	04:37 20:04-20:38/34 21:51	04:29 20:13-20:41/28 22:09
Potential sun hours	235	266	366	426	508	528
Sum of minutes with flicker	1654	729	355	552	1064	873

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C16 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (90)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 20:12-20:41/29 22:09	05:16 05:50-06:05/15 21:28 20:16-20:43/27	06:17 20:14 05:18 05:51-06:03/12	07:17 07:46-07:54/8 18:54	07:22 08:02-08:21/19 16:36 15:39-15:58/19	08:24 14:44-15:04/20 15:45 12:42-13:26/44
2	04:31 20:12-20:42/30 22:08	05:18 05:51-06:03/12 21:26 20:18-20:42/24	06:19 20:11 05:20 05:53-06:03/10	07:19 07:48-07:52/4 18:51	07:25 08:01-08:25/24 16:34 15:40-15:56/16	08:26 14:45-15:03/18 15:44 12:42-13:26/44
3	04:32 20:12-20:42/30 22:08	05:20 05:53-06:03/10 21:24 20:19-20:41/22	06:21 20:09 05:21 05:55-06:02/7	07:21 18:48 07:23 18:48	07:27 08:01-08:27/26 16:32 15:42-15:53/11	08:27 14:46-15:02/16 15:43 12:42-13:26/44
4	04:33 20:12-20:43/31 22:07	05:21 05:55-06:02/7 21:21 20:21-20:40/19	06:23 20:06 05:23 05:57-06:02/5	07:23 18:46 07:25 18:43	07:29 08:02-08:28/26 16:29	08:29 14:47-15:01/14 15:42 12:43-13:27/44
5	04:34 20:12-20:43/31 22:06	05:23 05:57-06:02/5 21:19 20:22-20:37/15	06:25 20:03 05:25 05:58-05:59/1	07:25 18:43 07:27 18:40	07:31 08:04-08:29/25 16:27	08:31 14:48-15:00/12 15:42 12:43-13:28/45
6	04:35 20:12-20:44/32 22:06	05:25 05:58-05:59/1 21:17 20:25-20:34/9	06:27 20:01 05:27 06:02-06:03/1	07:27 18:40 07:29 18:38	07:33 08:07-08:30/23 16:25	08:32 14:49-14:59/10 15:41 12:44-13:28/44
7	04:36 20:12-20:44/32 22:05	05:27 21:15 21:13	06:29 19:58 06:31 19:55	07:29 18:38 07:31 08:11-08:17/6	07:35 08:09-08:30/21 16:23	08:34 14:49-14:58/9 15:40 12:44-13:28/44
8	04:37 20:12-20:45/33 22:04	05:29 21:13 21:11	06:31 19:55 06:33 19:53	07:31 08:11-08:17/6 07:33 08:09-08:20/11	07:38 08:12-08:31/19 16:21	08:35 14:50-14:58/8 15:40 12:45-13:29/44
9	04:38 20:12-20:45/33 22:03	05:31 20:10-20:19/9 21:11	06:33 19:53 06:35 19:50	07:34 08:09-08:20/11 18:32	07:40 08:14-08:30/16 16:19	08:36 14:51-14:56/5 15:39 12:45-13:29/44
10	04:39 20:12-20:45/33 22:02	05:33 20:07-20:19/12 21:08 06:52-06:57/5	06:35 19:50 05:35 20:06-20:21/15	07:36 08:08-08:21/13 18:30	07:42 08:16-08:30/14 16:17 08:34-08:41/7	08:38 14:52-14:56/4 15:39 12:46-13:30/44
11	04:41 20:12-20:45/33 22:01	05:35 20:06-20:21/15 21:06 06:47-06:59/12	06:37 19:47 05:37 20:05-20:21/16	07:38 08:07-08:21/14 18:27	07:44 08:19-08:30/11 16:15 08:32-08:43/11	08:39 14:53-14:56/3 15:39 12:46-13:30/44
12	04:42 20:12-20:46/34 22:00	05:37 20:05-20:21/16 21:04 06:45-07:01/16	06:39 19:45 05:39 20:05-20:22/17	07:40 08:09-08:21/12 18:25	07:46 08:21-08:29/8 12:52-13:06/14 16:13 08:30-08:43/13	08:40 14:53-14:55/2 15:38 12:46-13:30/44
13	04:43 20:12-20:46/34 21:59	05:39 20:05-20:22/17 21:01 06:44-07:03/19	06:41 19:42 05:41 20:04-20:22/18	07:42 08:11-08:21/10 18:22	07:48 08:31-08:45/14 12:50-13:10/20 16:11 08:24-08:29/5	08:41 12:47-13:31/44 15:38
14	04:45 20:12-20:46/34 21:58	05:41 20:04-20:22/18 20:59 06:42-07:04/22	06:43 19:39 05:43 20:04-20:22/18	07:44 08:13-08:20/7 18:19	07:51 08:30-08:45/15 12:48-13:11/23 16:09 08:26-08:28/2	08:42 12:47-13:31/44 15:38
15	04:46 20:11-20:46/35 21:56	05:43 20:04-20:22/18 20:57 06:41-07:05/24	06:45 19:37 05:45 20:06-20:21/15	07:46 16:45-16:55/10 18:17 08:16-08:20/4	07:53 08:29-08:45/16 16:08 12:46-13:13/27	08:43 12:48-13:32/44 15:38
16	04:48 20:12-20:47/35 21:55	05:45 20:04-20:22/18 20:54 06:41-07:06/25	06:47 19:34 05:47 20:03-20:19/16	07:48 16:42-16:59/17 18:14	07:55 08:31-08:46/15 16:06 12:45-13:15/30	08:44 12:48-13:32/44 15:38
17	04:49 20:12-20:47/35 21:54	05:47 20:03-20:19/16 20:52 06:40-07:06/26	06:49 19:31 05:49 20:04-20:17/13	07:50 16:40-17:00/20 18:12	07:57 08:33-08:46/13 12:44-13:16/32 16:04 14:47-14:53/6	08:45 12:49-13:32/43 15:38
18	04:51 20:12-20:48/36 21:52	05:49 20:04-20:17/13 20:49 06:39-07:06/27	06:51 19:28 05:51 20:04-20:15/11	07:52 16:38-17:01/23 18:09	07:59 08:36-08:47/11 12:43-13:17/34 16:02 14:45-14:55/10	08:46 12:50-13:33/43 15:38
19	04:53 20:12-20:47/35 21:51	05:51 20:04-20:15/11 20:47 06:38-07:06/28	06:53 19:26 05:53 20:05-20:13/8	07:54 16:36-17:02/26 18:07	08:01 08:38-08:46/8 12:43-13:18/35 16:01 14:45-14:58/13	08:47 12:49-13:33/44 15:38
20	04:54 05:53-05:57/4 21:49	05:53 20:05-20:13/8 20:44 06:38-07:06/28	06:55 19:23 05:55 20:06-20:11/5	07:57 16:36-17:03/27 18:04	08:03 08:40-08:46/6 12:42-13:19/37 15:59 14:44-14:59/15	08:48 12:50-13:34/44 15:39
21	04:56 05:51-05:59/8 21:48	05:55 20:06-20:11/5 20:42 06:38-07:06/28	06:57 19:20 05:57 20:06-20:11/5	07:59 16:35-17:03/28 18:02	08:05 08:42-08:45/3 12:41-13:20/39 15:58 14:43-15:00/17	08:48 12:50-13:33/43 15:39
22	04:58 05:50-06:01/11 21:46	05:57 06:38-07:06/28 20:40	06:59 19:18 05:59 06:38-07:05/27	08:01 16:34-17:03/29 17:59	08:07 14:42-15:00/18 15:56 12:42-13:21/39	08:49 12:51-13:34/43 15:39
23	04:59 05:48-06:01/13 21:44	05:59 06:38-07:05/27 20:37	07:01 19:15 07:03 07:32-07:54/22	08:03 16:35-17:04/29 17:57	08:09 14:43-15:02/19 15:55 12:41-13:22/41	08:49 12:51-13:35/44 15:40
24	05:01 05:48-06:03/15 21:43	06:01 06:38-07:05/27 20:34	07:03 19:12 07:05 07:34-07:55/21	08:05 16:34-17:03/29 17:55	08:11 14:43-15:02/19 15:53 12:41-13:22/41	08:50 12:52-13:36/44 15:41
25	05:03 05:48-06:04/16 21:41	06:03 06:38-07:04/26 20:32	07:05 19:10 07:07 07:36-07:56/20	07:07 15:34-16:03/29 16:52	08:13 14:43-15:02/19 15:52 12:41-13:22/41	08:50 12:52-13:36/44 15:41
26	05:05 05:47-06:03/16 21:39	06:05 06:39-07:03/24 20:29	07:07 19:07 07:09 07:38-07:56/18	07:09 15:33-16:02/29 16:50	08:15 14:43-15:03/20 15:51 12:41-13:23/42	08:50 12:53-13:36/43 15:42
27	05:06 05:47-06:04/17 21:37	06:07 06:39-07:01/22 20:27	07:09 19:04 07:11 07:40-07:56/16	07:12 15:34-16:03/29 16:47	08:17 14:43-15:03/20 15:49 12:41-13:23/42	08:51 12:53-13:37/44 15:43
28	05:08 05:47-06:05/18 21:35	06:09 06:40-07:00/20 20:24	07:11 19:02 07:13 07:42-07:56/14	07:14 15:34-16:02/28 16:45	08:19 14:43-15:03/20 15:48 12:42-13:25/43	08:51 12:54-13:37/43 15:44
29	05:10 05:46-06:04/18 21:34	06:11 06:41-06:58/17 20:22	07:13 18:59 07:15 07:44-07:55/11	07:16 08:06-08:14/8 16:43 15:36-16:02/26	08:20 14:44-15:04/20 15:47 12:42-13:25/43	08:51 12:54-13:38/44 15:45
30	05:12 05:46-06:04/18 21:32	06:13 06:44-06:55/11 20:19	07:15 18:56 07:20 08:02-08:18/16	07:18 08:04-08:16/12 16:40 15:36-16:00/24	08:22 14:45-15:05/20 15:46 12:42-13:26/44	08:51 12:55-13:39/44 15:46
31	05:14 05:48-06:05/17 21:30	06:15 20:16 20:16	07:20 18:56 16:38 15:37-15:59/22	07:20 08:02-08:18/16 16:38 15:37-15:59/22	15:46 12:42-13:26/44 248	08:51 15:02-15:03/1 15:47 12:55-13:38/43
Potential sun hours	529	469	384	324	248	216
Sum of minutes with flicker	1196	804	287	550	1320	1480

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C17 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (91)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January		February		March		April		May		June	
1	08:51	14:08-14:16/8	08:15	07:11	06:49	07:14-07:30/16	05:32	07:24-08:44/80	04:36	07:38-08:24/46		
	15:48	10:51-11:32/41	16:45	17:47	19:53		20:55	06:31-07:12/41	21:53	05:10-05:28/18		
2	08:50	14:10-14:15/5	08:13	07:08	06:46	07:11-07:30/19	05:30	07:24-08:43/79	04:34	07:38-08:24/46		
	15:49	10:52-11:33/41	16:47	17:50	19:55		20:57	06:31-07:12/41	21:54	05:09-05:28/19		
3	08:50	10:52-11:33/41	08:11	07:06	06:43	08:03-08:19/16	05:28	07:24-08:43/79	04:33	07:39-08:23/44		
	15:50		16:49	17:52	19:57	07:11-07:29/18	20:59	06:31-07:11/40	21:55	05:08-05:28/20		
4	08:50	10:52-11:33/41	08:09	07:03	06:41	07:58-08:25/27	05:25	07:24-08:43/79	04:32	07:40-08:22/42		
	15:52		16:52	17:54	19:59	07:06-07:07/1	21:02	06:32-07:11/39	21:57	05:07-05:29/22		
5	08:49	10:53-11:34/41	08:07	07:00	06:38	07:54-08:28/34	05:23	07:25-08:42/77	04:31	07:41-08:22/41		
	15:53		16:54	17:56	20:01	07:03-07:08/5	21:04	06:32-07:10/38	21:58	05:07-05:30/23		
6	08:49	10:53-11:34/41	08:05	06:58	06:35	07:51-08:31/40	05:21	07:25-08:42/77	04:31	07:42-08:21/39		
	15:55		16:56	17:58	20:03	07:01-07:09/8	21:06	06:32-07:10/38	21:59	05:06-05:29/23		
7	08:48	10:54-11:34/40	08:03	06:55	06:33	07:48-08:33/45	05:19	07:25-08:42/77	04:30	07:42-08:20/38		
	15:56		16:58	18:00	20:05	06:58-07:10/12	21:08	06:33-07:09/36	22:00	05:05-05:29/24		
8	08:47	10:54-11:35/41	08:00	06:53	06:30	07:45-08:34/49	05:17	07:25-08:41/76	04:29	07:44-08:20/36		
	15:58		17:01	18:02	20:07	06:55-07:09/14	21:10	06:33-07:09/36	22:01	05:05-05:30/25		
9	08:47	10:55-11:35/40	07:58	06:50	06:27	07:44-08:36/52	05:14	07:25-08:40/75	04:28	07:44-08:19/35		
	15:59		17:03	18:05	20:10	06:53-07:10/17	21:12	06:34-07:08/34	22:02	05:04-05:30/26		
10	08:46	10:55-11:35/40	07:56	06:47	06:25	07:41-08:37/56	05:12	07:25-08:40/75	04:28	07:45-08:19/33		
	16:01		17:05	18:07	20:12	06:52-07:09/17	21:14	06:34-07:07/33	22:03	05:04-05:31/27		
11	08:45	10:56-11:36/40	07:54	06:45	06:22	07:40-08:39/59	05:10	07:25-08:39/74	04:27	07:46-08:18/32		
	16:02		17:07	18:09	20:14	06:53-07:09/16	21:16	06:35-07:06/31	22:04	05:03-05:30/27		
12	08:44	10:57-11:36/39	07:52	06:42	06:19	07:38-08:40/62	05:08	07:25-08:38/73	04:26	07:47-08:18/31		
	16:04		17:10	18:11	20:16	06:53-07:07/14	21:18	06:36-07:04/28	22:05	05:03-05:31/28		
13	08:43	10:57-11:36/39	07:49	06:39	06:17	07:37-08:41/64	05:06	07:26-08:38/72	04:26	07:48-08:17/29		
	16:06		17:12	18:13	20:18	06:54-07:06/12	21:20	06:37-07:03/26	22:06	05:03-05:31/28		
14	08:42	10:58-11:36/38	07:47	06:37	06:14	07:35-08:41/66	05:04	07:26-08:37/71	04:26	07:48-08:16/28		
	16:08		17:14	18:15	20:20	06:55-07:03/8	21:22	06:39-07:02/23	22:07	05:02-05:30/28		
15	08:41	10:59-11:37/38	07:45	06:34	06:12	07:34-08:43/69	05:02	07:27-08:37/70	04:25	07:49-08:16/27		
	16:10		17:16	18:17	20:22	06:38-06:59/21	21:24	06:40-07:00/20	22:07	05:02-05:31/29		
16	08:40	10:59-11:36/37	07:42	06:31	06:09	07:33-08:43/70	05:00	07:27-08:36/69	04:25	07:49-08:16/27		
	16:12		17:19	18:19	20:24	06:35-07:03/28	21:25	06:42-06:58/16	22:08	05:02-05:31/29		
17	08:39	11:00-11:36/36	07:40	06:29	06:07	07:32-08:44/72	04:58	07:27-08:35/68	04:25	07:50-08:16/26		
	16:13		17:21	18:22	20:26	06:33-07:06/33	21:27	06:44-06:55/11	22:08	05:02-05:31/29		
18	08:37	11:00-11:36/36	07:38	06:26	06:04	07:31-08:43/72	04:57	07:28-08:35/67	04:25	07:51-08:16/25		
	16:15		17:23	18:24	20:28	06:30-07:07/37	21:29		22:09	05:02-05:32/30		
19	08:36	11:01-11:35/34	07:35	06:23	06:02	07:30-08:44/74	04:55	07:28-08:34/66	04:25	07:51-08:16/25		
	16:17		17:25	18:26	20:30	06:28-07:09/41	21:31		22:09	05:02-05:32/30		
20	08:35	11:03-11:35/32	07:33	06:21	05:59	07:29-08:44/75	04:53	07:29-08:33/64	04:25	07:51-08:16/25		
	16:19		17:28	18:28	20:32	06:25-07:09/44	21:33		22:10	05:02-05:32/30		
21	08:33	11:03-11:35/32	07:31	06:18	05:56	07:29-08:45/76	04:51	07:29-08:32/63	04:25	07:51-08:16/25		
	16:21		17:30	18:30	20:35	06:24-07:10/46	21:35		22:10	05:02-05:32/30		
22	08:32	11:04-11:34/30	07:28	06:15	05:54	07:27-08:44/77	04:50	07:31-08:32/61	04:25	07:52-08:17/25		
	16:23		17:32	18:32	20:37	06:25-07:11/46	21:36		22:10	05:03-05:33/30		
23	08:30	11:05-11:33/28	07:26	06:13	05:51	07:27-08:44/77	04:48	07:31-08:31/60	04:25	07:52-08:17/25		
	16:26		17:34	18:34	20:39	06:24-07:11/47	21:38		22:10	05:03-05:33/30		
24	08:29	11:08-11:33/25	07:23	06:10	05:49	07:27-08:45/78	04:46	07:32-08:30/58	04:26	07:52-08:17/25		
	16:28		17:36	18:36	20:41	06:25-07:12/47	21:40	05:19-05:21/2	22:10	05:03-05:33/30		
25	08:27	11:10-11:31/21	07:21	06:07	05:47	07:26-08:44/78	04:45	07:33-08:30/57	04:26	07:52-08:18/26		
	16:30		17:39	18:38	20:43	06:27-07:13/46	21:42	05:18-05:23/5	22:10	05:04-05:33/29		
26	08:25	11:12-11:29/17	07:18	06:05	05:44	07:25-08:44/79	04:43	07:33-08:28/55	04:27	07:52-08:18/26		
	16:32		17:41	18:40	20:45	06:28-07:12/44	21:43	05:17-05:25/8	22:10	05:04-05:33/29		
27	08:24	11:15-11:26/11	07:16	06:02	05:42	07:25-08:45/80	04:42	07:33-08:28/55	04:27	07:52-08:19/27		
	16:34		17:43	18:42	20:47	06:32-07:12/40	21:45	05:15-05:25/10	22:10	05:05-05:34/29		
28	08:22		07:13	05:59	05:39	07:25-08:45/80	04:41	07:34-08:27/53	04:28	07:51-08:19/28		
	16:36		17:45	18:45	20:49	06:32-07:13/41	21:47	05:14-05:26/12	22:10	05:05-05:34/29		
29	08:20			06:57	05:37	07:24-08:44/80	04:39	07:35-08:27/52	04:28	07:51-08:20/29		
	16:38			19:47	20:51	06:31-07:12/41	21:48	05:13-05:27/14	22:10	05:06-05:34/28		
30	08:18			06:54	05:35	07:24-08:44/80	04:38	07:36-08:26/50	04:29	07:50-08:21/31		
	16:41			19:49	20:53	06:31-07:12/41	21:50	05:12-05:27/15	22:09	05:07-05:35/28		
31	08:17			06:51			04:37	07:37-08:25/48				
	16:43			19:51			21:51	05:11-05:28/17				
Potential sun hours	235		266	366	426		508		529			
Sum of minutes with flicker	953		0	401	2696		2694		1749			

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C17 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (91)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 07:50-08:22/32 22:09 05:07-05:34/27	05:15 07:36-08:49/73 21:28 06:46-07:15/29	06:17 07:39-08:38/59 20:14 06:52-07:08/16	07:17 08:03-08:30/27 18:53	07:22 16:36	08:24 10:38-11:18/40 15:45
2	04:31 07:50-08:23/33 22:08 05:08-05:35/27	05:17 07:35-08:50/75 21:26 06:45-07:16/31	06:19 07:40-08:36/56 20:11 06:51-07:08/17	07:19 08:02-08:30/28 18:51	07:25 16:34	08:26 10:38-11:19/41 15:44
3	04:31 07:50-08:24/34 22:08 05:09-05:35/26	05:19 07:35-08:50/75 21:24 06:44-07:17/33	06:21 07:42-08:35/53 20:09 06:51-07:08/17	07:21 08:02-08:29/27 18:48	07:27 16:31	08:28 10:39-11:19/40 15:43
4	04:32 07:49-08:25/36 22:07 05:10-05:35/25	05:21 07:34-08:50/76 21:22 06:44-07:18/34	06:23 07:42-08:31/49 07:13-07:20/7 20:06 06:53-07:07/14	07:23 08:02-08:29/27 18:45	07:29 16:29	08:29 10:38-11:19/41 15:42
5	04:33 07:49-08:26/37 22:07 05:11-05:36/25	05:23 07:34-08:51/77 21:19 06:42-07:18/36	06:25 07:44-08:29/45 07:09-07:21/12 20:03 06:55-07:07/12	07:25 08:02-08:28/26 18:43	07:31 16:27	08:31 10:39-11:20/41 15:41
6	04:34 07:49-08:27/38 22:06 05:12-05:36/24	05:25 07:34-08:51/77 21:17 06:42-07:19/37	06:27 07:46-08:26/40 07:08-07:22/14 20:01 06:56-07:05/9	07:27 08:02-08:27/25 18:40	07:33 16:25	08:32 10:39-11:20/41 15:41
7	04:35 07:48-08:28/40 22:05 05:13-05:36/23	05:27 07:34-08:52/78 21:15 06:41-07:19/38	06:29 07:49-08:23/34 07:06-07:23/17 19:58 06:58-07:03/5	07:29 08:02-08:26/24 18:38	07:36 16:23	08:34 10:39-11:20/41 15:40
8	04:37 07:48-08:29/41 22:04 05:14-05:36/22	05:29 07:34-08:52/78 21:13 06:41-07:20/39	06:31 07:52-08:19/27 07:05-07:23/18 19:55 07:00-07:01/1	07:31 08:03-08:24/21 18:35	07:38 16:21	08:35 10:40-11:21/41 15:39
9	04:38 07:47-08:30/43 22:03 05:15-05:36/21	05:31 07:33-08:52/79 21:11 06:41-07:20/39	06:33 07:57-08:14/17 19:53 07:05-07:23/18	07:33 08:05-08:24/19 18:32	07:40 16:19	08:37 10:41-11:22/41 15:39
10	04:39 07:46-08:31/45 22:02 05:16-05:36/20	05:33 07:33-08:52/79 21:08 06:40-07:20/40	06:35 07:04-07:23/19 19:50	07:36 08:06-08:21/15 18:30	07:42 16:17	08:38 13:59-14:04/5 15:39 10:41-11:22/41
11	04:40 07:46-08:31/45 22:01 05:17-05:36/19	05:35 07:33-08:52/79 21:06 06:39-07:20/41	06:37 07:06-07:23/17 19:47	07:38 08:09-08:18/9 18:27	07:44 16:15	08:39 13:58-14:06/8 15:38 10:41-11:22/41
12	04:42 07:45-08:32/47 22:00 05:19-05:36/17	05:39 07:33-08:52/79 21:04 06:39-07:20/41	06:39 07:08-07:22/14 19:45	07:40 18:24	07:46 16:13	08:40 13:58-14:08/10 15:38 10:42-11:23/41
13	04:43 07:45-08:34/49 21:59 05:20-05:36/16	05:41 07:33-08:52/79 21:01 06:39-07:20/41	06:41 07:10-07:21/11 19:42	07:42 18:22	07:48 16:11	08:42 13:58-14:08/10 15:38 10:42-11:23/41
14	04:45 07:44-08:35/51 21:58 05:21-05:35/14	05:43 07:33-08:52/79 20:59 06:39-07:20/41	06:43 07:12-07:19/7 19:39	07:44 18:19	07:51 16:09	08:43 13:58-14:09/11 15:38 10:42-11:24/42
15	04:46 07:43-08:35/52 21:57 05:22-05:35/13	05:45 07:32-08:51/79 20:57 06:39-07:20/41	06:45 07:14-07:17/3 19:37	07:46 18:17	07:53 10:47-10:59/12 16:07	08:44 13:58-14:10/12 15:38 10:43-11:24/41
16	04:47 07:43-08:37/54 21:55 05:24-05:35/11	05:47 07:32-08:51/79 20:54 06:39-07:20/41	06:47 19:34	07:48 18:14	07:55 10:45-11:02/17 16:06	08:45 13:58-14:11/13 15:38 10:43-11:24/41
17	04:49 07:43-08:37/54 21:54 05:25-05:34/9	05:49 07:32-08:51/79 20:52 06:34-07:18/44	06:49 19:31	07:50 18:12	07:57 10:42-11:04/22 16:04	08:46 13:58-14:11/13 15:38 10:44-11:25/41
18	04:51 07:42-08:38/56 21:52 05:27-05:34/7	05:51 07:32-08:50/78 20:49 06:32-07:18/46	06:51 19:28	07:52 18:09	07:59 10:42-11:07/25 16:02	08:46 13:59-14:12/13 15:38 10:45-11:26/41
19	04:52 07:42-08:39/57 21:51 05:28-05:32/4	05:51 07:32-08:50/78 20:47 06:31-07:17/46	06:53 19:26	07:54 18:07	08:01 10:40-11:08/28 16:01	08:47 13:59-14:13/14 15:38 10:45-11:26/41
20	04:54 07:41-08:40/59 21:49 05:30-05:31/1	05:53 07:33-08:50/77 20:45 06:30-07:17/47	06:55 19:23	07:57 18:04	08:03 10:39-11:09/30 15:59	08:48 13:59-14:13/14 15:38 10:45-11:26/41
21	04:55 07:41-08:41/60 21:48	05:55 07:33-08:50/77 20:42 06:29-07:16/47	06:57 19:20	07:59 18:02	08:05 10:38-11:10/32 15:57	08:48 14:00-14:14/14 15:39 10:46-11:27/41
22	04:57 07:41-08:43/62 21:46	05:57 07:33-08:49/76 20:40 06:29-07:15/46	06:59 19:18	08:01 17:59	08:07 10:39-11:11/32 15:56	08:49 14:00-14:14/14 15:39 10:46-11:27/41
23	04:59 07:39-08:43/64 21:45	05:59 07:34-08:49/75 20:37 06:30-07:14/44	07:01 19:15	08:03 17:57	08:09 10:38-11:12/34 15:54	08:50 14:01-14:15/14 15:40 10:47-11:28/41
24	05:01 07:39-08:44/65 21:43	06:01 07:34-08:48/74 20:35 06:32-07:12/40	07:03 08:16-08:20/4 19:12	08:05 17:54	08:11 10:38-11:13/35 15:53	08:50 14:01-14:15/14 15:40 10:47-11:28/41
25	05:02 07:38-08:44/66 21:41	06:03 07:34-08:46/72 20:32 06:34-07:10/36	07:05 08:11-08:24/13 19:10	07:07 16:52	08:13 10:37-11:13/36 15:52	08:50 14:01-14:15/14 15:41 10:47-11:28/41
26	05:04 07:38-08:45/67 21:39 06:58-07:03/5	06:05 07:34-08:45/71 20:29 06:35-07:07/32	07:07 08:08-08:26/18 19:07	07:09 16:50	08:15 10:38-11:15/37 15:50	08:51 14:02-14:15/13 15:42 10:48-11:29/41
27	05:06 07:38-08:46/68 21:37 06:54-07:07/13	06:07 07:35-08:44/69 20:27 06:37-07:05/28	07:09 08:07-08:28/21 19:04	07:12 16:47	08:17 10:38-11:16/38 15:49	08:51 14:03-14:16/13 15:42 10:48-11:29/41
28	05:08 07:37-08:46/69 21:36 06:51-07:09/18	06:09 07:35-08:43/68 20:24 06:39-07:00/21	07:11 08:06-08:29/23 19:01	07:14 16:45	08:19 10:38-11:16/38 15:48	08:51 14:03-14:16/13 15:43 10:49-11:30/41
29	05:10 07:37-08:47/70 21:34 06:50-07:11/21	06:11 07:36-08:42/66 06:41-06:52/11 20:22 06:56-07:04/8	07:13 08:05-08:30/25 18:59	07:16 16:43	08:21 10:38-11:17/39 15:47	08:51 14:04-14:16/12 15:44 10:49-11:30/41
30	05:12 07:37-08:48/71 21:32 06:49-07:13/24	06:13 07:37-08:41/64 06:43-06:50/7 20:19 06:54-07:06/12	07:15 08:04-08:30/26 18:56	07:18 16:40	08:22 10:38-11:17/39 15:46	08:51 14:05-14:16/11 15:45 10:50-11:31/41
31	05:13 07:36-08:48/72 21:30 06:47-07:14/27	06:15 07:38-08:40/62 06:45-06:47/2 20:16 06:52-07:07/15	 16:38	07:20 16:38	 15:46	08:51 14:07-14:16/9 15:46 10:51-11:32/41
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	2096	3461	758	248	494	1534

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C2 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (76)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:51 15:48	08:15 09:00-09:28/28 16:45	07:11 07:56-08:18/22 17:47	06:49 19:53	05:32 20:55	04:36 21:52
2	08:50 15:49	08:13 09:00-09:29/29 16:47	07:08 07:56-08:16/20 17:49	06:46 19:55	05:30 20:57	04:34 21:54
3	08:50 15:50	08:11 09:00-09:30/30 16:49 08:41-08:45/4	07:05 07:58-08:15/17 17:52	06:43 19:57	05:28 20:59	04:33 21:55
4	08:50 15:52	08:09 09:00-09:30/30 16:52 08:39-08:46/7	07:03 07:59-08:13/14 17:54	06:41 19:59	05:25 21:01	04:32 21:56
5	08:49 15:53	08:07 09:00-09:30/30 16:54 08:37-08:48/11	07:00 08:02-08:09/7 17:56	06:38 07:03-07:04/1 20:01	05:23 05:52-05:54/2 21:04	04:31 21:58
6	08:49 15:55	08:05 09:00-09:30/30 16:56 08:34-08:47/13	06:58 17:58	06:35 07:01-07:07/6 20:03	05:21 05:50-05:55/5 21:06	04:31 21:59
7	08:48 15:56	08:02 09:00-09:30/30 16:58 08:32-08:48/16	06:55 18:00	06:33 06:58-07:08/10 20:05	05:19 05:48-05:56/8 21:08	04:30 22:00
8	08:47 15:58	08:00 09:01-09:30/29 17:01 08:31-08:49/18	06:53 18:02	06:30 06:55-07:08/13 20:07	05:17 05:46-05:57/11 21:10	04:29 22:01
9	08:47 15:59	07:58 09:01-09:29/28 17:03 08:30-08:48/18	06:50 07:16-07:19/3 18:05	06:27 06:53-07:09/16 20:09	05:14 05:44-05:57/13 21:12	04:28 22:02
10	08:46 16:01	07:56 09:02-09:29/27 17:05 08:31-08:48/17	06:47 07:13-07:19/6 18:07	06:25 06:50-07:09/19 20:12	05:12 05:42-05:57/15 21:14	04:28 22:03
11	08:45 16:03	07:54 09:03-09:28/25 17:07 08:32-08:48/16	06:45 07:10-07:19/9 18:09	06:22 06:48-07:09/21 20:14	05:10 05:40-05:57/17 21:16	04:27 22:04
12	08:44 16:04	07:52 09:04-09:27/23 17:10 08:32-08:46/14	06:42 07:08-07:20/12 18:11	06:19 06:45-07:08/23 20:16	05:08 05:38-05:57/19 21:18	04:27 22:05
13	08:43 16:06	07:49 09:05-09:26/21 17:12 08:34-08:45/11	06:39 07:05-07:20/15 18:13	06:17 06:43-07:08/25 20:18	05:06 05:36-05:57/21 21:20	04:26 22:06
14	08:42 16:08	07:47 09:06-09:24/18 17:14 08:36-08:42/6	06:37 07:03-07:19/16 18:15	06:14 06:40-07:06/26 20:20	05:04 05:35-05:57/22 21:22	04:26 22:07
15	08:41 16:10	07:45 09:09-09:22/13 17:16	06:34 07:03-07:18/15 18:17	06:12 06:38-07:05/27 20:22	05:02 05:33-05:57/24 21:23	04:25 22:07
16	08:40 16:12	07:42 17:19	06:31 07:05-07:17/12 18:19	06:09 06:35-07:03/28 20:24	05:00 05:31-05:56/25 21:25	04:25 05:02-05:03/1 22:08
17	08:39 16:13	07:40 17:21	06:29 07:06-07:15/9 18:22	06:07 06:33-06:57/24 20:26	04:58 05:32-05:56/24 21:27	04:25 05:02-05:04/2 22:08
18	08:37 16:15	07:38 08:05-08:13/8 17:23	06:26 18:24	06:04 06:32-06:56/24 20:28	04:57 05:31-05:55/24 21:29	04:25 05:02-05:04/2 22:09
19	08:36 16:17	07:35 08:03-08:16/13 17:25	06:23 18:26	06:01 06:32-06:55/23 20:30	04:55 05:31-05:54/23 21:31	04:25 05:02-05:04/2 22:09
20	08:35 16:19	07:33 08:00-08:17/17 17:28	06:21 18:28	05:59 06:32-06:53/21 20:32	04:53 05:32-05:53/21 21:33	04:25 05:02-05:05/3 22:10
21	08:33 16:21	07:31 07:58-08:18/20 17:30	06:18 18:30	05:56 06:32-06:51/19 20:34	04:51 05:32-05:51/19 21:35	04:25 05:03-05:06/3 22:10
22	08:32 16:23	07:28 07:56-08:19/23 17:32	06:15 18:32	05:54 06:34-06:47/13 20:37	04:50 05:33-05:48/15 21:36	04:25 05:03-05:06/3 22:10
23	08:30 09:08-09:16/8 16:26	07:26 07:56-08:20/24 17:34	06:13 18:34	05:51 06:34-06:45/11 20:39	04:48 05:33-05:47/14 21:38	04:25 05:03-05:05/2 22:10
24	08:29 09:07-09:20/13 16:28	07:23 07:55-08:19/24 17:36	06:10 18:36	05:49 06:37-06:42/5 20:41	04:46 05:34-05:47/13 21:40	04:26 05:03-05:05/2 22:10
25	08:27 09:05-09:22/17 16:30	07:21 07:55-08:19/24 17:39	06:07 18:38	05:47 20:43	04:45 05:35-05:47/12 21:42	04:26 05:04-05:06/2 22:10
26	08:25 09:04-09:23/19 16:32	07:18 07:55-08:20/25 17:41	06:05 18:40	05:44 20:45	04:43 05:37-05:46/9 21:43	04:27 05:04-05:05/1 22:10
27	08:24 09:03-09:25/22 16:34	07:16 07:55-08:19/24 17:43	06:02 18:42	05:42 20:47	04:42 05:38-05:44/6 21:45	04:27 05:05-05:06/1 22:10
28	08:22 09:02-09:26/24 16:36	07:13 07:56-08:19/23 17:45	05:59 18:44	05:39 20:49	04:41 21:46	04:28 22:10
29	08:20 09:01-09:27/26 16:38		06:57 19:47	05:37 20:51	04:39 21:48	04:28 22:10
30	08:18 09:01-09:28/27 16:41		06:54 19:49	05:35 20:53	04:38 21:50	04:29 22:09
31	08:16 09:01-09:29/28 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	184	767	177	355	362	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	Last time (hh:mm) with flicker	Minutes with flicker
	Sun set (hh:mm)	First time (hh:mm) with flicker	Last time (hh:mm) with flicker	Minutes with flicker

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C2 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (76)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 22:09	05:15 05:49-06:07/18 21:28	06:17 06:47-07:08/21 20:14	07:17 07:46-07:59/13 18:53	07:22 08:31-08:58/27 16:36 08:01-08:18/17	08:24 15:45
2	04:31 22:08	05:17 05:51-06:07/16 21:26	06:19 06:49-07:08/19 20:11	07:19 07:48-07:59/11 18:51	07:25 08:30-08:59/29 16:34 08:00-08:17/17	08:26 15:44
3	04:31 22:08	05:19 05:53-06:07/14 21:24	06:21 06:51-07:07/16 20:09	07:21 07:50-07:58/8 18:48	07:27 08:31-09:00/29 16:31 08:00-08:18/18	08:27 15:43
4	04:32 22:07	05:21 05:55-06:07/12 21:21	06:23 06:53-07:06/13 20:06	07:23 07:52-07:56/4 18:45	07:29 08:30-09:00/30 16:29 08:02-08:18/16	08:29 15:42
5	04:33 22:07	05:23 05:56-06:06/10 21:19	06:25 06:54-07:04/10 20:03	07:25 18:43	07:31 08:29-08:59/30 16:27 08:05-08:18/13	08:31 15:41
6	04:34 22:06	05:25 05:58-06:05/7 21:17	06:27 06:56-07:03/7 20:01	07:27 18:40	07:33 08:30-09:00/30 16:25 08:07-08:17/10	08:32 15:41
7	04:35 22:05	05:27 06:00-06:04/4 21:15	06:29 06:58-07:00/2 19:58	07:29 18:37	07:35 08:30-09:00/30 16:23 08:09-08:16/7	08:34 15:40
8	04:37 22:04	05:29 21:13	06:31 19:55	07:31 18:35	07:38 08:31-09:00/29 16:21 08:12-08:16/4	08:35 15:39
9	04:38 22:03	05:31 21:11	06:33 19:53	07:33 08:35-08:46/11 18:32	07:40 08:30-09:00/30 16:19	08:36 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:36 08:33-08:49/16 18:30	07:42 08:30-08:59/29 16:17	08:38 15:39
11	04:40 22:01	05:35 21:06	06:37 19:47	07:38 08:31-08:50/19 18:27	07:44 08:32-08:59/27 16:15	08:39 15:38
12	04:42 22:00	05:37 21:04	06:39 19:45	07:40 08:30-08:51/21 18:24	07:46 08:32-08:59/27 16:13	08:40 15:38
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 08:28-08:51/23 18:22	07:48 08:33-08:59/26 16:11	08:41 15:38
14	04:45 21:58	05:41 20:59	06:43 19:39	07:44 08:27-08:51/24 18:19	07:51 08:34-08:58/24 16:09	08:43 15:38
15	04:46 21:56	05:43 20:57	06:45 19:36	07:46 08:28-08:52/24 18:17	07:53 08:35-08:56/21 16:07	08:44 15:38
16	04:47 05:48-05:52/4 21:55	05:45 20:54	06:47 19:34	07:48 08:27-08:52/25 18:14	07:55 08:37-08:56/19 16:06	08:45 15:38
17	04:49 05:46-05:54/8 21:54	05:47 20:52	06:49 19:31	07:50 08:27-08:51/24 18:12	07:57 08:38-08:55/17 16:04	08:45 15:38
18	04:51 05:45-05:56/11 21:52	05:49 20:49	06:51 19:28	07:52 08:26-08:50/24 18:09	07:59 08:41-08:54/13 16:02	08:46 15:38
19	04:52 05:44-05:56/12 21:51	05:51 06:42-06:48/6 20:47	06:53 19:26	07:54 08:27-08:51/24 18:07	08:01 08:43-08:51/8 16:01	08:47 15:38
20	04:54 05:44-05:58/14 21:49	05:53 06:40-06:50/10 20:44	06:55 19:23	07:57 08:28-08:50/22 18:04	08:03 15:59	08:48 15:38
21	04:56 05:43-05:58/15 21:48	05:55 06:38-06:52/14 20:42	06:57 19:20	07:59 08:29-08:48/19 18:02	08:05 15:57	08:48 15:39
22	04:57 05:43-06:01/18 21:46	05:57 06:37-06:56/19 20:39	06:59 19:18	08:01 08:31-08:47/16 17:59	08:07 15:56	08:49 15:39
23	04:59 05:42-06:02/20 21:44	05:59 06:36-06:58/22 20:37	07:01 19:15	08:03 08:34-08:46/12 17:57	08:09 15:54	08:49 15:40
24	05:01 05:42-06:04/22 21:43	06:01 06:36-06:59/23 20:34	07:03 19:12	08:05 08:36-08:43/7 17:54	08:11 15:53	08:50 15:40
25	05:02 05:41-06:05/24 21:41	06:03 06:35-07:00/25 20:32	07:05 19:10	07:07 16:52	08:13 15:52	08:50 15:41
26	05:04 05:42-06:06/24 21:39	06:05 06:35-06:59/24 20:29	07:07 07:50-07:56/6 19:07	07:09 08:42-08:48/6 16:50	08:15 15:50	08:50 15:42
27	05:06 05:42-06:07/25 21:37	06:07 06:37-07:05/28 20:27	07:09 07:47-07:58/11 19:04	07:12 08:38-08:52/14 16:47	08:17 15:49	08:51 15:42
28	05:08 05:42-06:06/24 21:36	06:09 06:39-07:06/27 20:24	07:11 07:46-07:59/13 19:01	07:14 08:35-08:54/19 16:45 08:05-08:12/7	08:19 15:48	08:51 15:43
29	05:10 05:44-06:07/23 21:34	06:11 06:41-07:07/26 20:22	07:13 07:44-08:00/16 18:59	07:16 08:34-08:56/22 16:43 08:03-08:15/12	08:21 15:47	08:51 15:44
30	05:12 05:46-06:08/22 21:32	06:13 06:43-07:08/25 20:19	07:15 07:44-08:00/16 18:56	07:18 08:33-08:57/24 16:40 08:02-08:16/14	08:22 15:46	08:51 15:45
31	05:13 05:48-06:08/20 21:30	06:15 06:45-07:08/23 20:16		07:20 08:31-08:57/26 16:38 08:02-08:17/15		08:51 15:46
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	286	353	150	506	577	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C3 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (77)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January	February	March	April	May	June
1	08:50 15:48	08:14 15:35-15:56/21 16:45	07:10 16:23-16:53/30 17:47	06:48 19:53	05:32 20:55	04:35 21:52
2	08:50 15:49	08:12 15:36-15:56/20 16:47	07:08 16:22-16:52/30 17:49	06:46 19:55	05:30 20:57	04:34 21:54
3	08:50 15:50	08:11 15:37-15:55/18 16:49	07:05 16:23-16:51/28 17:51	06:43 19:57	05:27 20:59	04:33 21:55
4	08:50 15:51	08:09 15:38-15:55/17 16:51	07:03 16:24-16:50/26 17:54	06:40 19:59	05:25 21:01	04:32 21:56
5	08:49 15:53	08:06 15:39-15:53/14 16:54	07:00 16:24-16:49/25 17:56	06:38 20:01	05:23 21:03	04:31 21:58
6	08:49 15:54	08:04 15:41-15:52/11 16:56	06:58 16:25-16:47/22 17:58	06:35 20:03	05:21 21:05	04:30 21:59
7	08:48 15:56	08:02 15:45-15:49/4 16:58	06:55 16:28-16:46/18 18:00	06:32 20:05	05:19 21:07	04:29 22:00
8	08:47 15:57	08:00 17:00	06:52 16:30-16:43/13 18:02	06:30 20:07	05:16 21:09	04:29 22:01
9	08:47 15:59	07:58 17:03	06:50 17:11-17:36/25 18:04	06:27 20:09	05:14 21:11	04:28 22:02
10	08:46 16:01	07:56 17:05	06:47 17:11-17:38/27 18:07	06:25 20:11	05:12 21:13	04:27 22:03
11	08:45 16:02	07:54 17:07	06:44 17:10-17:40/30 18:09	06:22 20:13	05:10 21:15	04:27 22:04
12	08:44 16:04	07:51 17:09	06:42 17:09-17:40/31 18:11	06:19 20:16	05:08 21:17	04:26 22:05
13	08:43 16:06	07:49 17:12	06:39 17:09-17:40/31 18:13	06:17 20:18	05:06 21:19	04:26 22:06
14	08:42 16:08	07:47 17:14	06:37 17:09-17:41/32 18:15	06:14 20:20	05:04 21:21	04:25 22:06
15	08:41 16:09	07:45 17:16	06:34 17:09-17:41/32 18:17	06:12 20:22	05:02 21:23	04:25 22:07
16	08:40 16:11	07:42 17:18	06:31 17:09-17:40/31 18:19	06:09 20:24	05:00 21:25	04:25 22:08
17	08:38 16:13	07:40 16:49-16:50/1 17:21	06:29 17:11-17:40/29 18:21	06:06 20:26	04:58 21:27	04:25 22:08
18	08:37 16:15	07:38 16:31-16:52/21 17:23	06:26 17:12-17:39/27 18:23	06:04 20:28	04:56 21:29	04:25 22:09
19	08:36 16:17	07:35 16:29-16:54/25 17:25	06:23 17:13-17:38/25 18:26	06:01 20:30	04:55 21:31	04:25 22:09
20	08:35 15:38-15:40/2 16:19	07:33 16:27-16:57/30 17:27	06:21 17:19-17:38/19 18:28	05:59 20:32	04:53 21:33	04:25 22:09
21	08:33 15:38-15:43/5 16:21	07:30 16:25-16:59/34 17:30	06:18 17:19-17:36/17 18:30	05:56 20:34	04:51 21:34	04:25 22:10
22	08:32 15:36-15:46/10 16:23	07:28 16:25-17:01/36 17:32	06:15 17:21-17:33/12 18:32	05:54 20:36	04:49 21:36	04:25 22:10
23	08:30 15:35-15:48/13 16:25	07:25 16:24-17:01/37 17:34	06:12 17:26-17:27/1 18:34	05:51 20:38	04:48 21:38	04:25 22:10
24	08:29 15:35-15:50/15 16:27	07:23 16:24-17:01/37 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:10
25	08:27 15:34-15:52/18 16:30	07:20 16:23-17:00/37 17:38	06:07 18:38	05:46 20:43	04:45 21:41	04:26 22:10
26	08:25 15:34-15:54/20 16:32	07:18 16:23-16:58/35 17:41	06:04 18:40	05:44 20:45	04:43 21:43	04:26 22:10
27	08:24 15:34-15:54/20 16:34	07:15 16:22-16:57/35 17:43	06:02 18:42	05:42 20:47	04:42 21:45	04:27 22:10
28	08:22 15:34-15:55/21 16:36	07:13 16:22-16:54/32 17:45	05:59 18:44	05:39 20:49	04:40 21:46	04:27 22:10
29	08:20 15:34-15:55/21 16:38		06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09
30	08:18 15:34-15:55/21 16:40		06:54 19:48	05:34 20:53	04:38 21:49	04:29 22:09
31	08:16 15:35-15:56/21 16:43		06:51 19:51		04:37 21:51	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	187	473	621	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C3 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (77)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:29 22:09	05:15 21:28	06:17 20:14	07:17 18:53	17:48-18:20/32 16:36	07:22 15:45
2	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	17:48-18:18/30 16:33	07:24 15:44
3	04:31 22:08	05:19 21:23	06:21 20:08	07:21 18:48	17:48-18:17/29 16:31	07:27 15:43
4	04:32 22:07	05:21 21:21	06:23 20:06	07:23 18:45	17:49-18:15/26 16:29	07:29 15:42
5	04:33 22:06	05:23 21:19	06:25 20:03	07:25 18:43	17:09-17:18/9 17:49-18:12/23	07:31 16:27
6	04:34 22:06	05:25 21:17	06:27 20:00	07:27 18:40	17:05-17:21/16 17:50-18:09/19	07:33 16:25
7	04:35 22:05	05:27 21:15	06:29 19:58	07:29 18:37	17:02-17:22/20 17:51-18:06/15	07:35 16:23
8	04:36 22:04	05:29 21:13	06:31 19:55	07:31 18:35	17:00-17:24/24 17:53-18:03/10	07:37 16:21
9	04:38 22:03	05:31 21:10	06:33 19:52	07:33 18:32	16:59-17:24/25 16:19	07:40 15:39
10	04:39 22:02	05:33 21:08	06:35 19:50	07:35 18:29	16:57-17:25/28 16:17	07:42 15:38
11	04:40 22:01	05:35 21:06	06:37 19:47	07:37 18:27	16:56-17:25/29 16:15	07:44 15:38
12	04:42 22:00	05:37 21:04	06:39 19:44	07:40 18:24	16:56-17:26/30 16:13	07:46 15:38
13	04:43 21:59	05:39 21:01	06:41 19:42	07:42 18:22	16:55-17:26/31 16:11	07:48 15:38
14	04:44 21:58	05:41 20:59	06:43 19:39	07:44 18:19	16:55-17:28/33 16:09	07:50 15:37
15	04:46 21:56	05:43 20:56	06:45 19:36	07:46 18:17	16:54-17:30/36 16:07	07:53 15:37
16	04:47 21:55	05:45 20:54	06:47 19:34	07:48 18:14	16:54-17:31/37 16:05	07:55 15:37
17	04:49 21:54	05:47 20:52	06:49 19:31	07:50 18:11	16:55-17:32/37 16:04	07:57 15:37
18	04:50 21:52	05:49 20:49	06:51 19:28	07:52 18:09	16:55-17:32/37 16:02	07:59 15:38
19	04:52 21:51	05:51 20:47	06:53 19:26	07:54 18:06	16:55-17:32/37 16:00	08:01 15:38
20	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	16:55-17:31/36 15:59	08:03 15:38
21	04:55 21:48	05:55 20:42	06:57 19:20	07:58 18:01	16:57-17:29/32 15:57	08:05 15:38
22	04:57 21:46	05:57 20:39	06:59 19:17	08:01 17:59	16:58-17:26/28 15:56	08:07 15:39
23	04:59 21:44	05:59 20:37	07:01 19:15	08:03 17:57	16:59-17:23/24 15:54	08:09 15:39
24	05:00 21:43	06:01 20:34	07:03 19:12	08:05 17:54	17:17-17:22/5 17:02-17:16/14	08:11 15:53
25	05:02 21:41	06:03 20:32	07:05 19:09	07:07 16:52	16:06-16:11/5 15:51	08:13 15:41
26	05:04 21:39	06:05 20:29	07:07 19:07	07:09 16:49	17:53-18:22/29 15:50	08:15 15:41
27	05:06 21:37	06:07 20:27	07:09 19:04	07:11 16:47	17:52-18:22/30 15:49	08:17 15:42
28	05:08 21:35	06:09 20:24	07:11 19:01	07:14 16:45	17:50-18:22/32 15:48	08:19 15:43
29	05:10 21:33	06:11 20:21	07:13 18:59	07:16 16:42	17:49-18:21/32 15:47	08:20 15:44
30	05:11 21:32	06:13 20:19	07:15 18:56	07:18 16:40	17:49-18:21/32 15:46	08:22 15:45
31	05:13 21:30	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	0	0	250	757	296	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C4 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January		February		March		April		May		June	
1	08:51	10:28-10:40/12	08:15		07:11		06:49		05:32		04:36	05:29-06:03/34
	15:48		16:45		17:47		19:53		20:55		21:52	
2	08:50	10:30-10:40/10	08:13		07:08		06:46		05:30		04:35	05:29-06:02/33
	15:49	09:30-09:31/1	16:47		17:50		19:55		20:57		21:54	
3	08:50	10:31-10:39/8	08:11		07:05		06:43		05:28		04:33	05:29-06:02/33
	15:50	09:29-09:32/3	16:49		17:52		19:57		20:59		21:55	
4	08:50	10:32-10:38/6	08:09		07:03		06:41		05:25		04:32	05:28-06:02/34
	15:52	09:28-09:32/4	16:52		17:54		19:59		21:01		21:56	
5	08:49	09:28-09:34/6	08:07		07:00		06:38		05:23		04:31	05:28-06:03/35
	15:53		16:54		17:56		20:01		21:03		21:58	
6	08:49	09:27-09:35/8	08:05		06:58		06:35		05:21		04:31	05:28-06:04/36
	15:55		16:56		17:58		20:03		21:06		21:59	
7	08:48	09:26-09:36/10	08:02		06:55		06:33		05:19		04:30	05:27-06:04/37
	15:56		16:58		18:00		20:05		21:08		22:00	
8	08:47	09:25-09:37/12	08:00		06:53	07:18-07:24/6	06:30		05:17	05:48-05:55/7	04:29	05:27-06:05/38
	15:58		17:01		18:02		20:07		21:10		22:01	
9	08:47	09:24-09:38/14	07:58		06:50	07:16-07:27/11	06:27	06:53-07:01/8	05:15	05:45-05:58/13	04:28	05:27-06:05/38
	15:59		17:03		18:05		20:09		21:12		22:02	
10	08:46	09:23-09:39/16	07:56		06:47	07:13-07:28/15	06:25	06:50-07:03/13	05:12	05:43-05:59/16	04:28	05:27-06:06/39
	16:01		17:05		18:07		20:12		21:14		22:03	
11	08:45	09:22-09:40/18	07:54	08:23-08:25/2	06:45	07:10-07:28/18	06:22	06:48-07:04/16	05:10	05:42-06:00/18	04:27	05:26-06:06/40
	16:03		17:07		18:09		20:14		21:16		22:04	
12	08:44	09:21-09:41/20	07:52	08:20-08:25/5	06:42	07:08-07:29/21	06:20	06:45-07:04/19	05:08	05:40-06:01/21	04:27	05:26-06:06/40
	16:04		17:10		18:11		20:16		21:18		22:05	
13	08:43	09:20-09:41/21	07:49	08:18-08:26/8	06:39	07:05-07:29/24	06:17	06:43-07:05/22	05:06	05:39-06:02/23	04:26	05:27-06:07/40
	16:06		17:12		18:13		20:18		21:20		22:06	
14	08:42	09:20-09:42/22	07:47	08:15-08:26/11	06:37	07:02-07:28/26	06:14	06:40-07:05/25	05:04	05:40-06:03/23	04:26	05:26-06:07/41
	16:08		17:14		18:15		20:20		21:21		22:06	
15	08:41	09:21-09:43/22	07:45	08:13-08:27/14	06:34	06:59-07:27/28	06:12	06:38-07:05/27	05:02	05:37-06:03/26	04:25	05:26-06:07/41
	16:10		17:16		18:17		20:22		21:23		22:07	
16	08:40	09:20-09:43/23	07:42	08:10-08:26/16	06:31	06:57-07:27/30	06:09	06:35-07:05/30	05:00	05:35-06:03/28	04:25	05:26-06:08/42
	16:12		17:19		18:19		20:24		21:25		22:08	
17	08:39	09:21-09:43/22	07:40	08:11-08:26/15	06:29	06:54-07:26/32	06:07	06:33-07:05/32	04:59	05:34-06:04/30	04:25	05:27-06:08/41
	16:14		17:21		18:22		20:26		21:27		22:08	
18	08:37	09:21-09:43/22	07:38	08:11-08:25/14	06:26	06:51-07:24/33	06:04	06:31-07:03/32	04:57	05:33-06:04/31	04:25	05:27-06:08/41
	16:15		17:23		18:24		20:28		21:29		22:09	
19	08:36	09:21-09:43/22	07:35	08:12-08:25/13	06:23	06:49-07:22/33	06:02	06:31-07:03/32	04:55	05:31-06:04/33	04:25	05:27-06:09/42
	16:17		17:25		18:26		20:30		21:31		22:09	
20	08:35	09:22-09:44/22	07:33	08:13-08:22/9	06:21	06:46-07:18/32	05:59	06:30-07:01/31	04:53	05:31-06:05/34	04:25	05:27-06:09/42
	16:19		17:28		18:28		20:32		21:33		22:10	
21	08:33	09:22-09:44/22	07:31		06:18	06:43-07:15/32	05:56	06:30-07:00/30	04:51	05:30-06:04/34	04:25	05:27-06:09/42
	16:21		17:30		18:30		20:34		21:35		22:10	
22	08:32	09:22-09:44/22	07:28		06:15	06:44-07:14/30	05:54	06:31-06:59/28	04:50	05:30-06:05/35	04:25	05:28-06:10/42
	16:24		17:32		18:32		20:37		21:36		22:10	
23	08:30	09:23-09:43/20	07:26		06:13	06:43-07:12/29	05:52	06:30-06:55/25	04:48	05:29-06:04/35	04:25	05:28-06:10/42
	16:26		17:34		18:34		20:39		21:38		22:10	
24	08:29	09:25-09:44/19	07:23		06:10	06:43-07:09/26	05:49	06:31-06:52/21	04:47	05:29-06:04/35	04:26	05:28-06:09/41
	16:28		17:36		18:36		20:41		21:40		22:10	
25	08:27	09:25-09:44/19	07:21		06:07	06:43-07:03/20	05:47	06:32-06:52/20	04:45	05:29-06:04/35	04:26	05:29-06:10/41
	16:30		17:39		18:38		20:43		21:42		22:10	
26	08:25	09:26-09:43/17	07:18		06:05	06:45-07:02/17	05:44	06:32-06:50/18	04:44	05:30-06:05/35	04:27	05:28-06:10/42
	16:32		17:41		18:40		20:45		21:43		22:10	
27	08:24	09:28-09:42/14	07:16		06:02	06:46-07:00/14	05:42	06:34-06:48/14	04:42	05:29-06:04/35	04:27	05:29-06:10/41
	16:34		17:43		18:42		20:47		21:45		22:10	
28	08:22	09:30-09:40/10	07:13		05:59	06:53-06:55/2	05:39	06:37-06:45/8	04:41	05:29-06:04/35	04:28	05:29-06:10/41
	16:36		17:45		18:45		20:49		21:46		22:10	
29	08:20	09:33-09:37/4			06:57		05:37		04:39	05:29-06:03/34	04:28	05:30-06:10/40
	16:38				19:47		20:51		21:48		22:10	
30	08:18				06:54		05:35		04:38	05:29-06:03/34	04:29	05:31-06:11/40
	16:41				19:49		20:53		21:49		22:09	
31	08:16				06:51				04:37	05:29-06:03/34		
	16:43				19:51				21:51			
Potential sun hours	235		266		366		426		508		529	
Sum of minutes with flicker	471		107		479		451		684		1179	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C4 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (78)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July		August		September		October		November		December	
1	04:30	05:30-06:10/40	05:15	05:51-06:11/20	06:17	06:47-07:03/16	07:17	07:46-08:08/22	07:22		08:24	09:04-09:22/18
	22:09		21:28		20:14		18:53		16:36		15:45	
2	04:31	05:31-06:10/39	05:17	05:52-06:10/18	06:19	06:49-07:01/12	07:19	07:48-08:07/19	07:25		08:26	09:06-09:22/16
	22:08		21:26		20:11		18:51		16:34		15:44	
3	04:31	05:32-06:10/38	05:19	05:54-06:09/15	06:21	06:51-06:59/8	07:21	07:50-08:06/16	07:27		08:27	09:08-09:22/14
	22:08		21:24		20:09		18:48		16:31		15:43	
4	04:32	05:32-06:10/38	05:21	05:56-06:07/11	06:23		07:23	07:52-08:05/13	07:29		08:29	09:09-09:21/12
	22:07		21:21		20:06		18:45		16:29		15:42	
5	04:33	05:33-06:10/37	05:23	05:59-06:02/3	06:25		07:25	07:54-08:02/8	07:31		08:31	09:11-09:21/10
	22:07		21:19		20:03		18:43		16:27		15:41	
6	04:34	05:34-06:10/36	05:25		06:27		07:27	07:56-07:59/3	07:33		08:32	09:13-09:21/8
	22:06		21:17		20:01		18:40		16:25		15:41	
7	04:36	05:34-06:10/36	05:27		06:29		07:29		07:35		08:34	09:14-09:20/6
	22:05		21:15		19:58		18:38		16:23		15:40	
8	04:37	05:35-06:10/35	05:29		06:31		07:31		07:38		08:35	10:20-10:26/6
	22:04		21:13		19:55		18:35		16:21		15:40	09:16-09:21/5
9	04:38	05:36-06:09/33	05:31		06:33		07:33		07:40		08:36	10:19-10:27/8
	22:03		21:11		19:53		18:32		16:19		15:39	09:18-09:21/3
10	04:39	05:36-06:09/33	05:33		06:35		07:36		07:42		08:38	10:19-10:29/10
	22:02		21:08		19:50		18:30		16:17		15:39	09:19-09:20/1
11	04:40	05:37-06:10/33	05:35		06:37		07:38		07:44		08:39	10:18-10:30/12
	22:01		21:06		19:47		18:27		16:15		15:38	
12	04:42	05:38-06:11/33	05:37		06:39		07:40		07:46		08:40	10:19-10:32/13
	22:00		21:04		19:45		18:24		16:13		15:38	
13	04:43	05:38-06:12/34	05:39		06:41		07:42		07:48	09:05-09:09/4	08:41	10:18-10:32/14
	21:59		21:01		19:42		18:22		16:11		15:38	
14	04:45	05:38-06:12/34	05:41		06:43		07:44		07:51	09:02-09:12/10	08:43	10:18-10:33/15
	21:58		20:59		19:39		18:19		16:09		15:38	
15	04:46	05:37-06:12/35	05:43	06:43-06:53/10	06:45		07:46		07:53	09:00-09:14/14	08:44	10:18-10:34/16
	21:56		20:57		19:36		18:17		16:07		15:38	
16	04:48	05:38-06:13/35	05:45	06:41-06:56/15	06:47	07:36-07:49/13	07:48		07:55	08:59-09:16/17	08:44	10:19-10:34/15
	21:55		20:54		19:34		18:14		16:06		15:38	
17	04:49	05:38-06:13/35	05:47	06:38-06:56/18	06:49	07:33-07:51/18	07:50		07:57	08:58-09:16/18	08:45	10:19-10:35/16
	21:54		20:52		19:31		18:12		16:04		15:38	
18	04:51	05:39-06:14/35	05:49	06:37-06:57/20	06:51	07:32-07:52/20	07:52		07:59	08:59-09:18/19	08:46	10:19-10:36/17
	21:52		20:49		19:28		18:09		16:02		15:38	
19	04:52	05:39-06:14/35	05:51	06:36-06:58/22	06:53	07:31-07:55/24	07:54		08:01	08:58-09:18/20	08:47	10:20-10:37/17
	21:51		20:47		19:26		18:07		16:01		15:38	
20	04:54	05:40-06:15/35	05:53	06:36-07:02/26	06:55	07:30-07:58/28	07:57		08:03	08:58-09:19/21	08:48	10:20-10:37/17
	21:49		20:44		19:23		18:04		15:59		15:38	
21	04:56	05:40-06:14/34	05:55	06:35-07:04/29	06:57	07:29-08:00/31	07:59	08:46-08:51/5	08:05	08:57-09:19/22	08:48	10:21-10:38/17
	21:48		20:42		19:20		18:02		15:57		15:39	
22	04:57	05:41-06:15/34	05:57	06:35-07:05/30	06:59	07:29-07:59/30	08:01	08:43-08:53/10	08:07	08:58-09:20/22	08:49	10:21-10:38/17
	21:46		20:39		19:18		17:59		15:56		15:39	
23	04:59	05:41-06:14/33	05:59	06:35-07:06/31	07:01	07:29-08:00/31	08:03	08:42-08:55/13	08:09	08:58-09:20/22	08:49	10:22-10:39/17
	21:44		20:37		19:15		17:57		15:54		15:40	
24	05:01	05:42-06:15/33	06:01	06:35-07:07/32	07:03	07:31-08:04/33	08:05	08:41-08:56/15	08:11	08:58-09:20/22	08:50	10:22-10:39/17
	21:43		20:34		19:12		17:54		15:53		15:40	
25	05:02	05:42-06:14/32	06:03	06:35-07:07/32	07:05	07:33-08:06/33	07:07	07:40-07:56/16	08:13	08:58-09:21/23	08:50	10:22-10:39/17
	21:41		20:32		19:10		16:52		15:52		15:41	
26	05:04	05:43-06:14/31	06:05	06:35-07:06/31	07:07	07:36-08:08/32	07:09	07:41-07:57/16	08:15	08:59-09:22/23	08:50	10:23-10:39/16
	21:39		20:29		19:07		16:50		15:50		15:42	
27	05:06	05:45-06:14/29	06:07	06:37-07:06/29	07:09	07:38-08:09/31	07:12	07:43-07:56/13	08:17	09:00-09:22/22	08:51	10:23-10:39/16
	21:37		20:27		19:04		16:47		15:49		15:43	
28	05:08	05:46-06:13/27	06:09	06:39-07:06/27	07:11	07:40-08:09/29	07:14	07:45-07:56/11	08:19	09:00-09:22/22	08:51	10:24-10:40/16
	21:36		20:24		19:01		16:45		15:48		15:43	
29	05:10	05:48-06:13/25	06:11	06:41-07:06/25	07:13	07:42-08:09/27	07:16	07:48-07:56/8	08:20	09:01-09:22/21	08:51	10:25-10:40/15
	21:34		20:22		18:59		16:43		15:47		15:44	
30	05:12	05:50-06:13/23	06:13	06:43-07:05/22	07:15	07:44-08:09/25	07:18	07:50-07:54/4	08:22	09:02-09:22/20	08:51	10:26-10:40/14
	21:32		20:19		18:56		16:40		15:46		15:45	
31	05:14	05:51-06:13/22	06:15	06:45-07:04/19			07:20	07:53-07:54/1			08:51	10:27-10:41/14
	21:30		20:16				16:38				15:46	
Potential sun hours	529		469		385		324		247		216	
Sum of minutes with flicker	1032		485		441		193		342		445	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C5 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (79)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

Idle 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	04:30 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 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:24 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 21:23	06:21 20:08	07:21 18:48	07:27 16:31	08:27 15:43
4	08:50 15:52	08:09 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	08:07 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 18:43	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 15:41
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	04:35 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 17:01	06:52 18:02	06:30 20:07	05:16 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 15:39
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	04:38 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	08:38 15:38
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	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 20:16	05:08 21:17	04:26 22:05	04:42 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 21:19	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	05:04 21:21	04:26 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 16:10	07:45 17:16	06:34 18:17	06:12 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	08:43 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	08:38 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 18:12	07:57 16:04	08:45 15:38
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	04:51 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 21:51	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 22:09	04:54 21:49	05:53 20:44	06:55 19:23	07:56 18:04	08:03 15:59	08:48 15:38
21	08:33 16:21	07:30 17:30	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	07:59 18:02	08:05 15:57	08:48 15:39
22	08:32 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 16:25	07:25 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 15:40
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	04:46 21:40	04:26 22:10	05:01 21:43	06:01 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	08:27 16:30	07:21 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 15:52	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 15:42
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	08:51 15:42
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	08:19 15:48	08:51 15:43
29	08:20 16:38	08:20 17:36	06:56 19:46	05:37 20:51	04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:22	07:13 18:59	07:16 16:42	08:20 15:47	08:51 15:44
30	08:18 16:40	08:18 17:38	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 15:45
31	08:16 16:43	08:16 17:38	06:51 19:51	05:34 20:53	04:37 21:51	05:13 21:30	06:15 20:16	07:20 16:38	07:20 16:38	07:20 16:38	08:51 15:46	08:51 15:46
Potential sun hours	235	266	366	426	508	529	529	469	385	324	247	216
Sum of minutes with flicker	0	0	0	0	0	0	0	0	0	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C6 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (80)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January		February		March		April		May		June	
1	08:51	09:35-09:53/18	08:15	08:59-09:10/11	07:11		06:49	07:14-07:31/17	05:32		04:36	
	15:48		16:45		17:47		19:53		20:55		21:52	
2	08:50	09:36-09:54/18	08:13	09:02-09:08/6	07:08		06:46	07:11-07:30/19	05:30		04:34	
	15:49		16:47		17:49		19:55		20:57		21:54	
3	08:50	09:36-09:54/18	08:11		07:05		06:43	07:08-07:29/21	05:28		04:33	
	15:50		16:49		17:52		19:57		20:59		21:55	
4	08:50	09:36-09:54/18	08:09		07:03	07:29-07:30/1	06:41	07:06-07:28/22	05:25		04:32	
	15:52		16:52		17:54		19:59		21:01		21:56	
5	08:49	09:37-09:55/18	08:07		07:00	07:26-07:31/5	06:38	07:05-07:26/21	05:23		04:31	05:07-05:09/2
	15:53		16:54		17:56		20:01		21:03		21:58	
6	08:49	09:37-09:55/18	08:05		06:58	07:24-07:32/8	06:35	07:05-07:23/18	05:21		04:31	05:06-05:09/3
	15:55		16:56		17:58		20:03		21:05		21:59	
7	08:48	09:38-09:55/17	08:02		06:55	07:21-07:32/11	06:33	07:05-07:21/16	05:19		04:30	05:05-05:09/4
	15:56		16:58		18:00		20:05		21:08		22:00	
8	08:47	09:38-09:56/18	08:00		06:52	07:18-07:32/14	06:30	07:06-07:18/12	05:17		04:29	05:05-05:10/5
	15:58		17:01		18:02		20:07		21:10		22:01	
9	08:47	09:39-09:56/17	07:58		06:50	07:16-07:32/16	06:27	07:09-07:15/6	05:14		04:28	05:04-05:10/6
	15:59		17:03		18:05		20:09		21:12		22:02	
10	08:46	09:40-09:56/16	07:56		06:47	07:13-07:31/18	06:25	06:54-07:02/8	05:12		04:28	05:04-05:11/7
	16:01		17:05		18:07		20:12		21:14		22:03	
11	08:45	09:41-09:56/15	07:54		06:45	07:10-07:29/19	06:22	06:51-07:06/15	05:10		04:27	05:03-05:11/8
	16:03		17:07		18:09		20:14		21:16		22:04	
12	08:44	09:42-09:56/14	07:52		06:42	07:08-07:28/20	06:19	06:48-07:07/19	05:08		04:27	05:03-05:11/8
	16:04		17:10		18:11		20:16		21:18		22:05	
13	08:43	09:42-09:55/13	07:49		06:39	07:05-07:23/18	06:17	06:43-06:44/1	05:06		04:26	05:03-05:12/9
	16:06		17:12		18:13		20:18	06:47-07:09/22	21:19		22:06	
14	08:42	09:44-09:55/11	07:47		06:37	07:02-07:22/20	06:14	06:40-07:09/29	05:04		04:26	05:03-05:13/10
	16:08		17:14		18:15		20:20		21:21		22:06	
15	08:41	09:46-09:54/8	07:45		06:34	07:00-07:19/19	06:12	06:38-07:10/32	05:02		04:25	05:02-05:12/10
	16:10		17:16		18:17		20:22		21:23		22:07	
16	08:40	09:49-09:51/2	07:42		06:31	07:01-07:15/14	06:09	06:35-07:10/35	05:00		04:25	05:02-05:12/10
	16:12		17:19		18:19		20:24		21:25		22:08	
17	08:39		07:40		06:29	07:02-07:13/11	06:07	06:33-07:11/38	04:59		04:25	05:02-05:13/11
	16:13		17:21		18:22		20:26		21:27		22:08	
18	08:37		07:38		06:26	07:03-07:10/7	06:04	06:30-07:10/40	04:57		04:25	05:02-05:13/11
	16:15		17:23		18:24		20:28		21:29		22:09	
19	08:36		07:35		06:23		06:01	06:28-07:10/42	04:55		04:25	05:02-05:13/11
	16:17		17:25		18:26		20:30		21:31		22:09	
20	08:35		07:33		06:21		05:59	06:27-07:09/42	04:53		04:25	05:02-05:13/11
	16:19		17:28		18:28		20:32		21:33		22:10	
21	08:33	09:07-09:09/2	07:30		06:18		05:56	06:27-07:09/42	04:51		04:25	05:03-05:14/11
	16:21		17:30		18:30		20:34		21:35		22:10	
22	08:32	09:05-09:10/5	07:28		06:15		05:54	06:27-07:09/42	04:50		04:25	05:03-05:14/11
	16:23		17:32		18:32		20:37		21:36		22:10	
23	08:30	09:03-09:10/7	07:26		06:13		05:51	06:26-07:08/42	04:48		04:25	05:03-05:14/11
	16:26		17:34		18:34		20:39		21:38		22:10	
24	08:29	09:02-09:12/10	07:23		06:10		05:49	06:27-07:07/40	04:47		04:26	05:03-05:14/11
	16:28		17:36		18:36		20:41		21:40		22:10	
25	08:27	09:00-09:12/12	07:21		06:07		05:47	06:28-07:07/39	04:45		04:26	05:04-05:15/11
	16:30		17:39		18:38		20:43		21:41		22:10	
26	08:25	08:58-09:13/15	07:18		06:05		05:44	06:27-07:05/38	04:43		04:27	05:04-05:14/10
	16:32		17:41		18:40		20:45		21:43		22:10	
27	08:24	08:56-09:13/17	07:16		06:02	06:27-06:29/2	05:42	06:28-07:03/35	04:42		04:27	05:05-05:15/10
	16:34		17:43		18:42		20:47		21:45		22:10	
28	08:22	08:56-09:13/17	07:13		05:59	06:24-06:30/6	05:39	06:30-06:43/13	04:41		04:28	05:05-05:15/10
	16:36		17:45		18:44		20:49	06:44-07:02/18	21:46		22:10	
29	08:20	08:57-09:13/16			06:57	07:22-07:32/10	05:37	06:32-06:41/9	04:39		04:28	05:06-05:15/9
	16:38				19:47		20:51	06:45-06:59/14	21:48		22:10	
30	08:18	08:58-09:12/14			06:54	07:19-07:32/13	05:35	06:48-06:57/9	04:38		04:29	05:07-05:16/9
	16:41				19:49		20:53		21:49		22:09	
31	08:16	08:59-09:12/13			06:51	07:16-07:31/15			04:37			
	16:43				19:51				21:51			
Potential sun hours	235		266		366		426		508		529	
Sum of minutes with flicker	367		17		247		816		0		229	

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C6 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (80)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 05:07-05:15/8 22:09	05:15 21:28	06:17 06:50-07:05/15 20:14	07:17 07:46-08:05/19 18:53	07:22 16:36	08:24 09:23-09:38/15 15:45
2	04:31 05:08-05:15/7 22:08	05:17 21:26	06:19 06:53-07:01/8 20:11	07:19 07:48-08:08/20 18:51	07:25 16:34	08:26 09:23-09:39/16 15:44
3	04:31 05:09-05:15/6 22:08	05:19 21:24	06:21 07:07-07:13/6 20:09	07:21 07:50-08:09/19 18:48	07:27 16:31	08:27 09:22-09:39/17 15:43
4	04:32 05:10-05:16/6 22:07	05:21 21:21	06:23 07:04-07:16/12 20:06	07:23 07:52-08:09/17 18:45	07:29 16:29	08:29 09:23-09:40/17 15:42
5	04:33 05:11-05:15/4 22:06	05:23 21:19	06:25 07:02-07:17/15 20:03	07:25 07:54-08:09/15 18:43	07:31 16:27	08:31 09:23-09:40/17 15:41
6	04:34 05:12-05:15/3 22:06	05:25 21:17	06:27 07:01-07:18/17 20:01	07:27 07:56-08:09/13 18:40	07:33 16:25	08:32 09:24-09:41/17 15:41
7	04:36 05:13-05:15/2 22:05	05:27 21:15	06:29 07:00-07:21/21 19:58	07:29 07:58-08:08/10 18:37	07:35 16:23	08:34 09:23-09:41/18 15:40
8	04:37 05:14-05:15/1 22:04	05:29 21:13	06:31 07:00-07:22/22 19:55	07:31 08:00-08:07/7 18:35	07:38 16:21	08:35 09:24-09:42/18 15:39
9	04:38 22:03	05:31 21:11	06:33 07:02-07:23/21 19:53	07:33 08:03-08:06/3 18:32	07:40 08:32-08:39/7 16:19	08:36 09:24-09:42/18 15:39
10	04:39 22:02	05:33 21:08	06:35 07:04-07:24/20 19:50	07:35 18:30	07:42 08:30-08:41/11 16:17	08:38 09:25-09:43/18 15:39
11	04:40 22:01	05:35 21:06	06:37 07:06-07:24/18 19:47	07:38 18:27	07:44 08:30-08:43/13 16:15	08:39 09:25-09:43/18 15:38
12	04:42 22:00	05:37 21:04	06:39 07:08-07:24/16 19:45	07:40 18:24	07:46 08:29-08:43/14 16:13	08:40 09:26-09:44/18 15:38
13	04:43 21:59	05:39 06:55-07:06/11 21:01	06:41 07:10-07:23/13 19:42	07:42 18:22	07:48 08:29-08:45/16 16:11	08:41 09:26-09:45/19 15:38
14	04:45 21:58	05:41 06:39-06:49/10 20:59 06:53-07:08/15	06:43 07:12-07:22/10 19:39	07:44 18:19	07:50 08:28-08:45/17 16:09	08:42 09:26-09:45/19 15:38
15	04:46 21:56	05:43 06:37-07:10/33 20:57	06:45 07:14-07:21/7 19:36	07:46 18:17	07:53 08:28-08:45/17 16:07	08:43 09:27-09:45/18 15:38
16	04:48 21:55	05:45 06:36-07:11/35 20:54	06:47 07:16-07:19/3 19:34	07:48 18:14	07:55 08:31-08:46/15 16:06	08:44 09:27-09:46/19 15:38
17	04:49 21:54	05:47 06:34-07:11/37 20:52	06:49 19:31	07:50 18:12	07:57 08:33-08:45/12 16:04	08:45 09:28-09:46/18 15:38
18	04:51 21:52	05:49 06:33-07:12/39 20:49	06:51 19:28	07:52 18:09	07:59 08:36-08:46/10 16:02	08:46 09:29-09:47/18 15:38
19	04:52 21:51	05:51 06:32-07:13/41 20:47	06:53 19:26	07:54 18:07	08:01 08:38-08:45/7 16:01	08:47 09:29-09:47/18 15:38
20	04:54 21:49	05:53 06:32-07:14/42 20:44	06:55 19:23	07:56 18:04	08:03 08:40-08:45/5 15:59	08:48 09:29-09:47/18 15:38
21	04:56 21:48	05:55 06:32-07:14/42 20:42	06:57 19:20	07:59 18:02	08:05 08:42-08:44/2 15:57	08:48 09:30-09:48/18 15:39
22	04:57 21:46	05:57 06:32-07:14/42 20:39	06:59 19:18	08:01 17:59	08:07 15:56	08:49 09:30-09:48/18 15:39
23	04:59 21:44	05:59 06:32-07:14/42 20:37	07:01 19:15	08:03 17:57	08:09 15:54	08:49 09:31-09:49/18 15:40
24	05:01 21:43	06:01 06:32-07:14/42 20:34	07:03 19:12	08:05 17:54	08:11 15:53	08:50 09:31-09:49/18 15:40
25	05:02 21:41	06:03 06:34-07:13/39 20:32	07:05 07:47-07:52/5 19:09	07:07 16:52	08:13 15:52	08:50 09:31-09:50/19 15:41
26	05:04 21:39	06:05 06:35-07:12/37 20:29	07:07 07:45-07:55/10 19:07	07:09 16:50	08:15 09:27-09:29/2 15:50	08:50 09:32-09:50/18 15:42
27	05:06 21:37	06:07 06:37-07:12/35 20:27	07:09 07:43-07:56/13 19:04	07:11 16:47	08:17 09:25-09:33/8 15:49	08:51 09:32-09:50/18 15:43
28	05:08 21:35	06:09 06:39-07:11/32 20:24	07:11 07:42-08:00/18 19:01	07:14 16:45	08:19 09:24-09:35/11 15:48	08:51 09:33-09:51/18 15:43
29	05:10 21:34	06:11 06:41-07:10/29 20:22	07:13 07:42-08:02/20 18:59	07:16 16:43	08:20 09:24-09:36/12 15:47	08:51 09:33-09:52/19 15:44
30	05:12 21:32	06:13 06:43-06:44/1 20:19 06:47-07:09/22	07:15 07:44-08:03/19 18:56	07:18 16:40	08:22 09:23-09:37/14 15:46	08:51 09:34-09:52/18 15:45
31	05:14 21:30	06:15 06:48-07:07/19 20:16		07:20 16:38		08:51 09:35-09:53/18 15:46
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	37	645	309	123	193	554

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C7 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (81)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

Idle 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	06:07-06:26/19	04:36 21:52	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	06:08-06:25/17	04:34 21:54	04:30 22:08	05:17 21:26	06:19 20:11	07:19 18:51	07:24 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	06:09-06:23/14	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 15:52	08:09 16:52	07:03 17:54	06:40 19:59	05:25 21:01	06:11-06:20/9	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	06:14-06:17/3	04:31 21:58	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 15:54	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 15:41
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	04:35 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 15:58	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	06:22-06:28/6	06:31 19:55	07:31 18:35	08:35 16:21
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	04:38 22:03	05:31 21:10	06:20-06:31/11	06:33 19:52	07:33 18:32	08:36 16:19
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	06:17-06:32/15	06:35 19:50	07:35 18:30	08:38 16:17
11	08:45 16:02	07:54 17:07	06:45 18:09	06:22 20:14	05:10 21:15		04:27 22:04	04:40 22:01	05:35 21:06	06:16-06:33/17	06:37 19:47	07:37 18:27	08:39 16:15
12	08:44 16:04	07:51 17:10	06:42 18:11	06:19 20:16	05:08 21:17		04:26 22:05	04:42 22:00	05:37 21:04	06:16-06:34/18	06:39 19:44	07:40 18:24	08:40 16:13
13	08:43 16:06	07:49 17:12	06:39 18:13	06:17 20:18	05:06 21:19		04:26 22:06	04:43 21:59	05:39 21:01	06:15-06:35/20	06:41 19:42	07:42 18:22	08:41 16:11
14	08:42 16:08	07:47 17:14	06:37 18:15	06:14 20:20	05:04 21:21		04:26 22:06	04:44 21:58	05:41 20:59	06:15-06:35/20	06:43 19:39	07:44 18:19	08:42 16:09
15	08:41 16:10	07:45 17:16	06:34 18:17	06:12 20:22	05:02 21:23		04:25 22:07	04:46 21:56	05:43 20:56	06:15-06:35/20	06:45 19:36	07:46 18:17	08:43 16:07
16	08:40 16:12	07:42 17:19	06:31 18:19	06:09 20:24	05:00 21:25		04:25 22:08	04:47 21:55	05:45 20:54	06:17-06:35/18	06:47 19:34	07:48 18:14	08:44 16:06
17	08:38 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	06:18-06:34/16	06:49 19:31	07:50 18:12	08:45 16:04
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	04:51 21:52	05:49 20:49	06:20-06:34/14	06:51 19:28	07:52 18:09	08:46 16:02
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	06:22-06:33/11	06:53 19:26	07:54 18:07	08:47 16:00
20	08:35 16:19	07:33 17:27	06:21 18:28	05:59 20:32	04:53 21:33		04:25 22:09	04:54 21:49	05:53 20:44	06:24-06:32/8	06:55 19:23	07:56 18:04	08:48 15:59
21	08:33 16:21	07:30 17:30	06:18 18:30	05:56 20:34	06:23-06:24/1		04:25 22:10	04:55 21:48	05:55 20:42	06:26-06:30/4	06:57 19:20	07:59 18:02	08:48 15:57
22	08:32 16:23	07:28 17:32	06:15 18:32	05:54 20:36	06:21-06:26/5		04:25 22:10	04:57 21:46	05:57 20:39		06:59 19:17	08:01 17:59	08:49 15:56
23	08:30 16:25	07:25 17:34	06:13 18:34	05:51 20:39	06:18-06:26/8		04:25 22:10	04:59 21:44	05:59 20:37		07:01 19:15	08:03 17:57	08:49 15:54
24	08:29 16:28	07:23 17:36	06:10 18:36	05:49 20:41	06:16-06:27/11		04:26 22:10	05:01 21:43	06:01 20:34		07:03 19:12	08:05 17:54	08:50 15:53
25	08:27 16:30	07:21 17:38	06:07 18:38	05:47 20:43	06:14-06:28/14		04:26 22:10	05:02 21:41	06:03 20:32		07:05 19:09	07:07 16:52	08:50 15:52
26	08:25 16:32	07:18 17:41	06:04 18:40	05:44 20:45	06:11-06:28/17		04:27 22:10	05:04 21:39	06:05 20:29		07:07 19:07	07:09 16:50	08:50 15:50
27	08:24 16:34	07:16 17:43	06:02 18:42	05:42 20:47	06:09-06:28/19		04:27 22:10	05:06 21:37	06:07 20:27		07:09 19:04	07:11 16:47	08:51 15:49
28	08:22 16:36	07:13 17:45	05:59 18:44	05:39 20:49	06:07-06:28/21		04:28 22:10	05:08 21:35	06:09 20:24		07:11 19:01	07:14 16:45	08:51 15:48
29	08:20 16:38		06:56 19:46	05:37 20:51	06:07-06:27/20		04:28 22:09	05:10 21:33	06:11 20:22		07:13 18:59	07:16 16:42	08:51 15:47
30	08:18 16:41		06:54 19:49	05:35 20:53	06:07-06:26/19		04:29 22:09	05:12 21:32	06:13 20:19		07:15 18:56	07:18 16:40	08:51 15:46
31	08:16 16:43		06:51 19:51					05:13 21:30	06:15 20:16			07:20 16:38	
Potential sun hours	235	266	366	426	508		529	529	469	385	324	247	216
Sum of minutes with flicker	0	0	0	135	62		0	0	198	0	0	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C8 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (82)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	January			February			March			April			May			June		
1	08:50	08:14	07:11							06:49	07:38-07:48/10		05:32	06:18-07:02/44		04:36	06:18-06:58/40	
	15:48	16:45	17:47							19:53			20:55			21:52		
2	08:50	08:13	07:08							06:46			05:30	06:17-07:03/46		04:35	06:19-06:58/39	
	15:49	16:47	17:49							19:55			20:57			21:54		
3	08:50	08:11	07:05							06:43			05:28	06:16-07:04/48		04:33	06:19-06:57/38	
	15:50	16:49	17:52							19:57			20:59			21:55		
4	08:50	08:09	07:03							06:41			05:25	06:15-07:04/49		04:32	06:20-06:56/36	
	15:52	16:52	17:54							19:59			21:01			21:56		
5	08:49	08:07	07:00							06:38			05:23	06:14-07:05/51		04:31	06:21-06:56/35	
	15:53	16:54	17:56							20:01			21:03			21:58		
6	08:49	08:05	06:58							06:35			05:21	06:14-07:05/51		04:31	06:22-06:56/34	
	15:55	16:56	17:58							20:03			21:05	05:50-05:54/4		21:59		
7	08:48	08:02	06:55							06:33			05:19	06:13-07:05/52		04:30	06:22-06:55/33	
	15:56	16:58	18:00							20:05			21:07	05:48-05:55/7		22:00		
8	08:47	08:00	06:52	07:18-07:20/2						06:30			05:17	06:13-07:05/52		04:29	06:23-06:55/32	
	15:58	17:01	18:02	07:22-07:28/6						20:07			21:10	05:46-05:56/10		22:01		
9	08:47	07:58	06:50	07:16-07:32/16						06:27			05:14	06:12-07:05/53		04:28	06:24-06:54/30	
	15:59	17:03	18:05							20:09			21:12	05:44-05:56/12		22:02		
10	08:46	07:56	06:47	07:13-07:34/21						06:25			05:12	06:12-07:05/53		04:28	06:25-06:54/29	
	16:01	17:05	18:07							20:11			21:14	05:42-05:56/14		22:03		
11	08:45	07:54	06:45	07:10-07:34/24						06:22			05:10	06:12-07:05/53		04:27	06:25-06:52/27	
	16:03	17:07	18:09							20:14			21:16	05:40-05:57/17		22:04		
12	08:44	07:52	06:42	07:08-07:35/27						06:19			05:08	06:11-07:05/54		04:27	06:26-06:52/26	
	16:04	17:10	18:11							20:16			21:17	05:38-05:56/18		22:05		
13	08:43	07:49	06:39	07:05-07:36/31						06:17			05:06	06:11-07:05/54		04:26	06:27-06:52/25	
	16:06	17:12	18:13							20:18			21:19	05:38-05:56/18		22:06		
14	08:42	07:47	06:37	07:02-07:36/34						06:14			05:04	06:12-07:05/53		04:26	06:27-06:51/24	
	16:08	17:14	18:15							20:20			21:21	05:39-05:57/18		22:06		
15	08:41	07:45	06:34	06:59-07:36/37						06:12			05:02	06:11-07:05/54		04:25	06:28-06:50/22	
	16:10	17:16	18:17							20:22			21:23	05:39-05:56/17		22:07		
16	08:40	07:42	06:31	06:57-07:36/39						06:09			05:00	06:11-07:04/53		04:25	06:29-06:50/21	
	16:12	17:19	18:19							20:24			21:25	05:39-05:56/17		22:08		
17	08:39	07:40	06:29	06:56-07:36/40						06:07			04:59	06:11-07:04/53		04:25	06:29-06:50/21	
	16:14	17:21	18:22							20:26			21:27	05:40-05:56/16		22:08		
18	08:37	07:38	06:26	06:56-07:35/39						06:04			04:57	06:12-07:04/52		04:25	06:30-06:49/19	
	16:15	17:23	18:24							20:28			21:29	05:40-05:55/15		22:09		
19	08:36	07:35	06:23	06:58-07:35/37						06:02			04:55	06:12-07:03/51		04:25	06:30-06:49/19	
	16:17	17:25	18:26							20:30			21:31	05:41-05:54/13		22:09		
20	08:35	07:33	06:21	06:46-06:51/5 07:09-07:33/24						05:59			04:53	06:12-07:04/52		04:25	06:30-06:49/19	
	16:19	17:28	18:28	06:59-07:07/8						20:32			21:33	05:42-05:53/11		22:09		
21	08:33	07:30	06:18	06:43-06:53/10						05:56			04:51	06:12-07:03/51		04:25	06:30-06:49/19	
	16:21	17:30	18:30	07:10-07:32/22						20:34			21:34	05:43-05:52/9		22:10		
22	08:32	07:28	06:15	06:41-06:55/14						05:54			04:50	06:13-07:03/50		04:25	06:31-06:50/19	
	16:24	17:32	18:32	07:10-07:30/20						20:36			21:36	05:46-05:50/4		22:10		
23	08:30	07:26	06:13	06:38-06:55/17						05:52	06:40-06:47/7		04:48	06:13-07:02/49		04:26	06:31-06:50/19	
	16:26	17:34	18:34	07:12-07:29/17						20:39			21:38			22:10		
24	08:29	07:23	06:10	06:35-06:55/20						05:49	06:35-06:53/18		04:47	06:13-07:02/49		04:26	06:31-06:50/19	
	16:28	17:36	18:36	07:14-07:25/11						20:41			21:40			22:10		
25	08:27	07:21	06:07	06:33-06:55/22						05:47	06:33-06:55/22		04:45	06:14-07:02/48		04:26	06:31-06:52/21	
	16:30	17:39	18:38							20:43			21:41			22:10		
26	08:25	07:18	06:05	06:33-06:56/23						05:44	06:29-06:57/28		04:44	06:14-07:01/47		04:27	06:31-06:52/21	
	16:32	17:41	18:40							20:45			21:43			22:10		
27	08:24	07:16	06:02	06:32-06:55/23						05:42	06:26-06:59/33		04:42	06:15-07:00/45		04:27	06:31-06:53/22	
	16:34	17:43	18:42							20:47			21:45			22:10		
28	08:22	07:13	05:59	06:32-06:54/22						05:39	06:23-07:00/37		04:41	06:15-07:00/45		04:28	06:30-06:54/24	
	16:36	17:45	18:44							20:49			21:46			22:10		
29	08:20		06:57	07:33-07:54/21						05:37	06:21-07:00/39		04:39	06:16-07:00/44		04:28	06:30-06:55/25	
	16:38		19:47							20:51			21:48			22:09		
30	08:18		06:54	07:33-07:52/19						05:35	06:19-07:01/42		04:38	06:17-06:59/42		04:29	06:30-06:56/26	
	16:41		19:49							20:53			21:49			22:09		
31	08:16		06:51	07:34-07:50/16									04:37	06:17-06:59/42				
	16:43		19:51										21:51					
Potential sun hours	235	266	366							426			508			529		
Sum of minutes with flicker	0	0	667							236			1760			784		

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment

Vilandes 3-6

LV-1010 Riga

0037167242411

Anna / anna@environment.lv

Calculated:

10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C8 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (82)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

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

	July	August	September	October	November	December
1	04:30 06:29-06:56/27 22:09	05:15 06:22-07:15/53 21:28 05:49-06:07/18	06:17 20:14	07:17 07:46-08:15/29 18:53	07:22 16:36	08:24 15:45
2	04:31 06:29-06:57/28 22:08	05:17 06:22-07:15/53 21:26 05:51-06:07/16	06:19 20:11	07:19 07:48-08:14/26 18:51	07:25 16:34	08:26 15:44
3	04:31 06:29-06:59/30 22:08	05:19 06:22-07:15/53 21:24 05:53-06:07/14	06:21 20:09	07:21 07:50-08:12/22 18:48	07:27 16:31	08:27 15:43
4	04:32 06:29-07:00/31 22:07	05:21 06:23-07:16/53 21:21 05:55-06:06/11	06:23 20:06	07:23 07:52-08:10/18 18:45	07:29 16:29	08:29 15:42
5	04:33 06:29-07:01/32 22:06	05:23 06:22-07:14/52 21:19 05:56-06:05/9	06:25 20:03	07:25 07:54-08:07/13 18:43	07:31 16:27	08:31 15:41
6	04:34 06:28-07:02/34 22:06	05:25 06:23-07:14/51 21:17 05:58-06:04/6	06:27 20:01	07:27 18:40	07:33 16:25	08:32 15:41
7	04:36 06:28-07:02/34 22:05	05:27 06:23-07:14/51 21:15 06:00-06:02/2	06:29 19:58	07:29 18:37	07:35 16:23	08:34 15:40
8	04:37 06:27-07:03/36 22:04	05:29 06:24-07:14/50 21:13	06:31 19:55	07:31 18:35	07:38 16:21	08:35 15:40
9	04:38 06:27-07:04/37 22:03	05:31 06:25-07:13/48 21:10	06:33 19:53	07:33 18:32	07:40 16:19	08:36 15:39
10	04:39 06:26-07:05/39 22:02	05:33 06:25-07:12/47 21:08	06:35 19:50	07:35 18:30	07:42 16:17	08:38 15:39
11	04:40 06:26-07:05/39 22:01	05:35 06:26-07:11/45 21:06	06:37 07:30-07:40/10 19:47	07:38 18:27	07:44 16:15	08:39 15:38
12	04:42 06:25-07:06/41 22:00	05:37 06:27-07:10/43 21:04	06:39 07:27-07:42/15 19:45	07:40 18:24	07:46 16:13	08:40 15:38
13	04:43 06:26-07:08/42 21:59	05:39 06:28-07:10/42 21:01	06:41 07:25-07:43/18 19:42	07:42 18:22	07:48 16:11	08:41 15:38
14	04:45 06:25-07:08/43 21:58	05:41 06:30-07:08/38 20:59	06:43 07:24-07:44/20 19:39	07:44 18:19	07:50 16:09	08:42 15:38
15	04:46 06:24-07:08/44 21:56	05:43 06:31-07:07/36 20:57	06:45 07:23-07:44/21 19:36	07:46 18:17	07:53 16:07	08:43 15:38
16	04:48 06:25-07:10/45 21:55	05:45 06:34-07:06/32 20:54	06:47 07:22-07:44/22 19:34	07:48 18:14	07:55 16:06	08:44 15:38
17	04:49 06:24-07:10/46 21:54	05:47 06:37-07:03/26 20:52	06:49 07:21-07:44/23 19:31	07:50 18:12	07:57 16:04	08:45 15:38
18	04:51 06:24-07:11/47 21:52	05:49 06:39-07:01/22 20:49	06:51 07:21-07:44/23 19:28	07:52 18:09	07:59 16:02	08:46 15:38
19	04:52 06:23-07:11/48 21:51	05:51 06:42-06:57/15 20:47	06:53 07:22-07:43/21 19:26 08:01-08:11/10	07:54 18:07	08:01 16:01	08:47 15:38
20	04:54 06:24-07:12/48 21:49	05:53 06:49-06:50/1 20:44	06:55 07:23-07:41/18 19:23 07:58-08:14/16	07:56 18:04	08:03 15:59	08:48 15:38
21	04:56 06:23-07:12/49 21:48	05:55 20:42	06:57 07:25-07:40/15 19:20 07:56-08:15/19	07:59 18:02	08:05 15:57	08:48 15:39
22	04:57 06:23-07:13/50 21:46 05:55-06:01/6	05:57 20:39	06:59 07:27-07:38/11 19:18 07:55-08:16/21	08:01 17:59	08:07 15:56	08:49 15:39
23	04:59 06:22-07:13/51 21:44 05:53-06:03/10	05:59 20:37	07:01 07:29-07:35/6 07:53-08:17/24 19:15 07:44-07:50/6	08:03 17:57	08:09 15:54	08:49 15:40
24	05:01 06:23-07:14/51 21:43 05:52-06:04/12	06:01 20:34	07:03 07:41-08:17/36 19:12	08:05 17:54	08:11 15:53	08:50 15:40
25	05:02 06:22-07:14/52 21:41 05:50-06:04/14	06:03 20:32	07:05 07:40-08:17/37 19:09	07:07 16:52	08:13 15:52	08:50 15:41
26	05:04 06:22-07:15/53 21:39 05:50-06:06/16	06:05 20:29	07:07 07:38-08:17/39 19:07	07:09 16:50	08:15 15:50	08:50 15:42
27	05:06 06:22-07:15/53 21:37 05:50-06:06/16	06:07 20:27	07:09 07:39-08:17/38 19:04	07:11 16:47	08:17 15:49	08:51 15:43
28	05:08 06:21-07:15/54 21:35 05:49-06:06/17	06:09 20:24	07:11 07:40-08:17/37 19:01	07:14 16:45	08:19 15:48	08:51 15:43
29	05:10 06:22-07:15/53 21:34 05:49-06:07/18	06:11 20:22	07:13 07:42-08:17/35 18:59	07:16 16:43	08:20 15:47	08:51 15:44
30	05:12 06:22-07:16/54 21:32 05:49-06:07/18	06:13 20:19	07:15 07:44-08:16/32 18:56	07:18 16:40	08:22 15:46	08:51 15:45
31	05:14 06:21-07:15/54 21:30 05:49-06:08/19	06:15 20:16		07:20 16:38		08:51 15:46
Potential sun hours	529	469	385	324	247	216
Sum of minutes with flicker	1491	887	573	108	0	0

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

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

Project:

Mezares_AB211223

Licensed user:

SIA Estonian, Latvian & Lithuanian environment
Vilandes 3-6
LV-1010 Riga
0037167242411
Anna / anna@environment.lv
Calculated:
10/04/2024 03:59/4.0.531

SHADOW - Calendar per WTG

WTG: C9 - GE WIND ENERGY 6.0-164 6000 164.0 !O! hub: 167.0 m (TOT: 249.0 m) (83)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

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

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
441	466	538	463	488	780	784	937	1,214	1,078	832	556	8,577

Idle 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	07:14-07:26/12	05:32 20:55	04:36 21:52	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	08:12 16:47	07:08 17:49	06:46 19:55	07:11-07:26/15	05:30 20:57	04:34 21:54	04:31 22:08	05:17 21:25	06:19 20:11	07:05-07:14/9	07:19 16:33	08:26 15:44
3	08:50 15:50	08:11 16:49	07:05 17:52	06:43 19:57	07:08-07:26/18	05:28 20:59	04:33 21:55	04:31 22:08	05:19 21:23	06:21 20:08	07:03-07:17/14	07:21 16:31	08:27 15:43
4	08:49 15:52	08:09 16:52	07:03 17:54	06:40 19:59	07:06-07:26/20	05:25 21:01	04:32 21:56	04:32 22:07	05:21 21:21	06:23 20:06	07:01-07:18/17	07:23 16:29	08:29 15:42
5	08:49 15:53	08:06 16:54	07:00 17:56	06:38 20:01	07:04-07:25/21	05:23 21:03	04:31 21:58	04:33 22:06	05:23 21:19	06:25 20:03	07:00-07:19/19	07:25 16:27	08:30 15:41
6	08:48 15:55	08:04 16:56	06:58 17:58	06:35 20:03	07:04-07:25/21	05:21 21:05	04:31 21:59	04:34 22:06	05:25 21:17	06:27 20:00	06:59-07:20/21	07:27 16:25	08:32 15:41
7	08:48 15:56	08:02 16:58	06:55 18:00	06:33 20:05	07:04-07:23/19	05:19 21:07	04:30 22:00	04:35 22:05	05:27 21:15	06:29 19:58	06:59-07:20/21	07:29 16:23	08:33 15:40
8	08:47 15:58	08:00 17:01	06:52 18:02	06:30 20:07	07:04-07:21/17	05:17 21:09	04:29 22:01	04:37 22:04	05:29 21:13	06:31 19:55	07:00-07:20/20	07:31 16:21	08:35 15:39
9	08:46 15:59	07:58 17:03	06:50 18:04	06:27 20:09	07:05-07:19/14	05:14 21:11	04:28 22:02	04:38 22:03	05:31 21:10	06:33 19:52	07:02-07:20/18	07:33 16:19	08:36 15:39
10	08:46 16:01	07:56 17:05	06:47 18:07	06:25 20:11	07:06-07:15/9	05:12 21:13	04:28 22:03	04:39 22:02	05:33 21:08	06:35 19:50	07:04-07:19/15	07:35 16:17	08:38 15:39
11	08:45 16:02	07:54 17:07	06:45 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	07:06-07:19/13	07:37 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 21:04	06:39 19:44	07:08-07:17/9	07:40 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	07:10-07:16/6	07:42 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 21:58	05:41 20:59	06:43 19:39	07:12-07:13/1	07:44 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	04:25 22:07	04:46 21:56	05:43 20:56	06:45 19:36		07:46 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 22:08	04:47 21:55	05:45 20:54	06:47 19:34		07:48 16:06	08:44 15:38
17	08:38 16:13	07:40 17:21	06:29 18:21	06:07 20:26		04:58 21:27	04:25 22:08	04:49 21:54	05:47 20:52	06:49 19:31		07:50 16:04	08:45 15:38
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	04:51 21:52	05:49 20:49	06:51 19:28		07:52 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 16:00	08:47 15:38
20	08:34 16:19	07:33 17:27	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 16:04	08:48 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 22:10	04:55 21:48	05:55 20:42	06:57 19:20		07:58 16:02	08:48 15:39
22	08:32 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	08:49 15:39
23	08:30 16:26	07:25 17:34	06:13 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 17:57	08:49 15:40
24	08:28 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 20:34	07:03 19:12		08:05 17:54	08:50 15:40
25	08:27 16:30	07:21 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		08:07 16:52	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	04:27 22:10	05:04 21:39	06:05 20:29	07:07 19:07		08:09 16:50	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 16:47	08:50 15:42
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		08:13 16:45	08:51 15:43
29	08:20 16:38		06:56 19:46	05:37 20:51		04:39 21:48	04:28 22:09	05:10 21:33	06:11 20:21	07:13 18:59		08:15 16:43	08:51 15:44
30	08:18 16:41		06:54 19:49	05:35 20:53	07:19-07:24/5	04:38 21:49	04:29 22:09	05:12 21:32	06:13 20:19	07:15 18:56		08:17 16:40	08:51 15:45
31	08:16 16:43		06:51 19:51		07:16-07:25/9	04:37 21:51		05:13 21:30	06:15 20:16			08:19 16:38	08:51 15:46
Potential sun hours	235	266	366	426		508	529	529	469	385	324	247	216
Sum of minutes with flicker	0	0	14	166		0	0	0	0	183	0	0	0

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

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