

Project: VPSP wind farm  
Description: VPSP wind farm

Licensed user:  
SIA Estonian, Latvian & Lithuanian environment  
Vilandes 3-6  
LV-1010 Riga  
0037167242411  
Anna / anna@environment.lv  
Calculated:  
19/05/2022 11:39/3.5.576

## SHADOW - Calendar per WTG

WTG: 1.3.A - Siemens Gamesa SG 6.6-170 6600 170.0 !O! hub: 165.0 m (TOT: 250.0 m) (16)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.35	3.07	4.72	8.16	9.63	10.93	9.79	7.85	5.92	3.23	1.29	0.72

Operational time

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Sum
293	300	348	355	333	399	506	566	582	663	919	1,110	790	574	487	406	8,631

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

	January	February	March	April	May	June
1	09:06 13:09-13:34/25 16:02 11:38-12:01/23	08:30 17:00 08:28 07:23	07:26 18:02 07:23 07:23	07:03 19:01-19:37/36 20:08 21:11	05:47 22:08 21:11 05:45	04:50 22:08 05:45 04:49
2	09:06 13:10-13:35/25 16:04 11:39-12:02/23	08:26 17:02 17:04 18:04	07:21 18:04 18:07 18:04	06:58 19:03-19:13/10 20:10 19:14-19:36/22	05:42 21:13 21:15 22:10	04:48 05:23-05:26/3 22:11 22:10
3	09:06 13:11-13:35/24 16:05 11:39-12:01/22	08:26 17:04 17:04 18:07	07:21 18:07 18:07 18:07	06:58 19:14-19:35/21 20:12 21:15	05:42 21:15 21:15 22:11	04:48 05:23-05:26/3 22:11 22:10
4	09:05 13:11-13:34/23 16:06 11:40-12:01/21	08:24 17:06 17:06 18:09	07:18 18:09 18:09 18:09	06:55 19:15-19:34/19 20:14 07:21-07:28/7	05:40 21:17 21:17 22:12	04:47 05:22-05:27/5 22:12 22:12
5	09:05 13:13-13:35/22 16:08 11:42-12:01/19	08:22 17:09 17:09 18:11	07:16 18:11 18:11 18:11	06:53 19:15-19:33/18 20:16 07:18-07:29/11	05:38 21:19 21:19 22:14	04:46 05:21-05:28/7 22:14 22:14
6	09:04 13:14-13:34/20 16:09 11:43-12:01/18	08:20 17:11 17:11 18:13	07:13 18:13 18:13 18:13	06:50 19:16-19:31/15 20:19 07:16-07:31/15	05:36 21:21 21:21 22:15	04:45 05:20-05:28/8 22:15 22:15
7	09:04 13:15-13:34/19 16:10 11:44-12:00/16	08:18 17:13 17:13 18:15	07:10 18:15 18:15 18:15	06:47 19:18-19:29/11 20:21 07:13-07:31/18	05:33 21:23 21:23 22:16	04:44 05:20-05:30/10 22:16 22:16
8	09:03 13:16-13:33/17 16:12 11:46-11:59/13	08:16 17:15 17:15 18:17	07:08 18:17 18:17 18:17	06:45 07:10-07:31/21 20:23 21:25	05:31 21:25 21:25 22:17	04:43 05:19-05:30/11 22:17 22:17
9	09:02 13:18-13:33/15 16:14 11:48-11:58/10	08:14 17:18 17:18 18:20	07:05 18:20 18:20 18:20	06:42 07:10-07:31/21 20:25 21:27	05:29 21:27 21:27 22:18	04:43 05:19-05:31/12 22:18 22:18
10	09:02 13:20-13:32/12 16:15 11:52-11:54/2	08:11 17:20 17:20 18:22	07:02 18:22 18:22 18:22	06:40 07:09-07:31/22 20:27 21:29	05:27 21:29 21:29 22:19	04:42 05:18-05:31/13 22:19 22:19
11	09:01 13:24-13:29/5 16:17 17:22	08:09 17:22 17:22 18:24	07:00 18:24 18:24 18:24	06:37 07:10-07:31/21 20:29 21:31	05:25 21:31 21:31 22:20	04:41 05:18-05:32/14 22:20 22:20
12	09:00 16:19 16:19 17:24	08:07 17:24 17:24 18:26	06:57 18:26 18:26 18:26	06:34 07:09-07:30/21 20:31 21:33	05:23 21:33 21:33 22:21	04:41 05:17-05:32/15 22:21 22:21
13	08:59 16:20 16:20 17:27	08:05 17:27 17:27 18:28	06:54 18:28 18:28 18:28	06:32 07:10-07:30/20 20:33 21:35	05:21 21:35 21:35 22:22	04:40 05:17-05:32/15 22:22 22:22
14	08:58 16:22 16:22 17:29	08:02 17:29 17:29 18:30	06:52 17:56-18:02/6 18:30 18:30	06:29 07:10-07:28/18 20:35 21:37	05:19 21:37 21:37 22:22	04:40 05:17-05:33/16 22:22 22:22
15	08:57 16:24 16:24 17:31	08:00 17:31 17:31 18:32	06:49 17:53-18:04/11 18:32 18:32	06:27 07:11-07:27/16 20:37 21:39	05:17 21:39 21:39 22:23	04:40 05:17-05:34/17 22:23 22:23
16	08:56 16:26 16:26 17:33	07:58 17:33 17:33 18:35	06:46 17:52-18:06/14 18:35 18:35	06:24 07:12-07:25/13 20:39 21:41	05:15 21:41 21:41 22:24	04:39 05:17-05:34/17 22:24 22:24
17	08:54 16:28 16:28 17:36	07:55 17:36 17:36 18:37	06:44 17:50-18:08/18 18:37 18:37	06:21 07:15-07:22/7 20:42 21:43	05:13 21:43 21:43 22:24	04:39 05:17-05:34/17 22:24 22:24
18	08:53 16:30 16:30 17:38	07:53 17:38 17:38 18:39	06:41 17:48-18:10/22 18:39 18:39	06:19 20:44 20:44 21:45	05:11 21:45 21:45 22:25	04:39 05:17-05:35/18 22:25 22:25
19	08:52 16:32 16:32 17:40	07:51 17:40 17:40 18:41	06:38 17:48-18:13/25 18:41 18:41	06:16 20:46 20:46 21:47	05:09 21:47 21:47 22:25	04:39 05:17-05:35/18 22:25 22:25
20	08:50 16:34 16:34 17:42	07:48 17:42 17:42 18:43	06:36 17:47-18:15/28 18:43 18:43	06:14 20:48 20:48 21:49	05:08 21:49 21:49 22:26	04:39 05:17-05:35/18 22:26 22:26
21	08:49 16:36 16:36 17:45	07:46 17:45 17:45 18:45	06:33 17:47-18:17/30 18:45 18:45	06:11 20:50 20:50 21:50	05:06 21:50 21:50 22:26	04:39 05:17-05:35/18 22:26 22:26
22	08:47 16:38 16:38 17:47	07:43 17:47 17:47 18:47	06:30 17:46-18:18/32 18:47 18:47	06:09 20:52 20:52 21:52	05:04 21:52 21:52 22:26	04:39 05:17-05:35/18 22:26 22:26
23	08:46 16:40 16:40 17:49	07:41 17:49 17:49 18:49	06:28 17:47-18:21/34 18:49 18:49	06:06 20:54 20:54 21:54	05:03 21:54 21:54 22:26	04:40 05:17-05:35/18 22:26 22:26
24	08:44 16:42 16:42 17:51	07:38 17:51 17:51 18:51	06:25 17:47-18:22/35 18:51 18:51	06:04 20:56 20:56 21:56	05:01 21:56 21:56 22:26	04:40 05:18-05:36/18 22:26 22:26
25	08:43 16:44 16:44 17:53	07:36 17:53 17:53 18:53	06:22 17:47-18:22/35 18:53 18:24-18:25/1	06:01 20:58 20:58 21:57	04:59 21:57 21:57 22:26	04:40 05:18-05:35/17 22:26 22:26
26	08:41 16:46 16:46 17:56	07:33 17:56 17:56 18:56	06:20 17:48-18:27/39 18:56 18:56	05:59 21:00 21:00 21:59	04:58 21:59 21:59 22:26	04:41 05:19-05:36/17 22:26 22:26
27	08:39 16:49 16:49 17:58	07:31 17:58 17:58 18:58	06:17 17:49-18:29/40 18:58 18:58	05:56 21:02 21:02 22:01	04:56 22:01 22:01 22:26	04:41 05:19-05:36/17 22:26 22:26
28	08:38 16:51 16:51 18:00	07:28 18:00 18:00 19:00	06:14 17:51-18:31/40 19:00 19:00	05:54 21:05 21:05 22:02	04:55 22:02 22:02 22:26	04:42 05:20-05:36/16 22:26 22:26
29	08:36 16:53 16:53 18:02	07:26 18:02 18:02 19:02	06:12 18:59-19:34/35 19:02 19:02	05:52 21:07 21:07 22:04	04:54 22:04 22:04 22:26	04:43 05:20-05:36/16 22:26 22:26
30	08:34 16:55 16:55 18:04	07:24 18:04 18:04 19:04	06:10 18:59-19:35/36 19:04 19:04	05:49 21:09 21:09 22:05	04:52 22:05 22:05 22:25	04:43 05:21-05:36/15 22:25 22:25
31	08:32 16:57 16:57 18:06	07:22 18:06 18:06 19:06	06:08 18:59-19:36/37 19:06 19:06	05:47 21:09 21:09 22:05	04:51 22:05 22:05 22:25	04:43 05:21-05:36/15 22:25 22:25
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	374	0	518	383	0	404

Table 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

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Description: VPSP wind farm

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LV-1010 Riga  
0037167242411  
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Calculated:  
19/05/2022 11:39/3.5.576

## SHADOW - Calendar per WTG

WTG: 1.3.A - Siemens Gamesa SG 6.6-170 6600 170.0 !O! hub: 165.0 m (TOT: 250.0 m) (16)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.35	3.07	4.72	8.16	9.63	10.93	9.79	7.85	5.92	3.23	1.29	0.72

Operational time

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Sum
293	300	348	355	333	399	506	566	582	663	919	1,110	790	574	487	406	8,631

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

	July	August	September	October	November	December
1	04:44 05:22-05:36/14 22:25	05:30 21:43	06:32 07:09-07:30/21 20:29	07:32 19:08	07:38 16:50	08:40 13:06-13:11/5 15:59
2	04:45 05:23-05:36/13 22:24	05:32 21:41	06:34 07:08-07:30/22 20:26	07:34 19:06	07:40 16:48	08:42 13:04-13:14/10 15:58
3	04:46 05:23-05:35/12 22:24	05:34 21:39	06:36 07:08-07:29/21 20:24	07:36 19:03	07:42 16:46	08:43 13:01-13:16/15 15:57
4	04:47 05:24-05:35/11 22:23	05:36 21:37	06:38 07:08-07:29/21 20:21	07:38 19:00	07:44 16:44	08:45 13:01-13:17/16 15:57
5	04:48 05:25-05:35/10 22:22	05:38 21:35	06:40 19:15-19:25/10 20:19	07:40 18:58	07:47 16:42	08:46 13:00-13:19/19 15:56
6	04:49 05:26-05:35/9 22:22	05:40 21:33	06:42 19:12-19:27/15 20:16	07:42 18:55	07:49 16:40	08:48 13:00-13:20/20 15:55
7	04:50 05:27-05:34/7 22:21	05:42 21:31	06:44 19:10-19:28/18 20:13	07:45 18:52	07:51 16:37	08:49 12:59-13:21/22 15:54
8	04:51 05:28-05:34/6 22:20	05:44 21:28	06:46 19:09-19:29/20 20:11	07:47 18:50	07:53 16:35	08:51 13:00-13:22/22 15:54
9	04:52 05:29-05:33/4 22:19	05:46 21:26	06:48 19:08-19:29/21 20:08	07:49 18:47	07:55 16:33	08:52 12:59-13:23/24 15:53
10	04:53 05:31-05:32/1 22:18	05:48 21:24	06:50 18:57-19:06/9 20:05	07:51 18:45	07:58 16:31	08:54 12:59-13:24/25 15:53
11	04:55 22:17	05:50 21:22	06:52 19:07-19:29/22 20:02	07:53 18:42	08:00 16:29	08:55 12:59-13:25/26 15:53
12	04:56 22:16	05:52 21:19	06:54 18:52-19:29/37 20:00	07:55 18:39	08:02 16:27	08:56 13:00-13:26/26 15:52
13	04:57 22:15	05:54 21:17	06:56 18:50-19:27/37 19:57	07:57 18:37	08:04 16:26	08:57 13:00-13:26/26 15:52
14	04:59 22:14	05:56 21:14	06:58 18:49-19:24/35 19:54	07:59 18:34	08:06 16:24	08:58 13:00-13:27/27 15:52
15	05:00 22:12	05:58 21:12	07:00 18:42-19:22/40 19:52	08:01 18:32	08:08 16:22	08:59 13:00-13:28/28 15:52
16	05:02 22:11	06:00 21:10	07:02 18:39-19:19/40 19:49	08:03 18:29	08:10 16:20	09:00 13:00-13:28/28 15:52
17	05:03 22:10	06:02 21:07	07:04 18:37-19:15/38 19:46	08:05 18:27	08:13 16:18	09:01 13:01-13:29/28 15:52
18	05:05 22:08	06:04 21:05	07:06 18:35-19:13/38 19:44	08:08 18:24	08:15 16:17	09:02 13:01-13:30/29 15:52
19	05:07 22:07	06:06 21:02	07:08 18:33-19:09/36 19:41	08:10 18:21	08:17 16:15	09:03 13:02-13:30/28 15:52
20	05:08 22:05	06:08 21:00	07:10 18:33-19:07/34 19:38	08:12 18:19	08:19 16:13	09:04 13:02-13:30/28 15:53
21	05:10 22:03	06:10 20:57	07:12 18:32-19:05/33 19:35	08:14 18:17	08:21 16:12	09:04 13:03-13:31/28 15:53
22	05:12 22:02	06:12 20:55	07:14 18:31-19:02/31 19:33	08:16 18:14	08:23 16:10	09:05 13:03-13:31/28 15:54
23	05:13 22:00	06:14 20:52	07:16 18:31-18:59/28 19:30	08:18 18:12	08:25 16:09	09:05 13:04-13:32/28 15:54
24	05:15 21:58	06:16 20:50	07:18 18:31-18:56/25 19:27	08:20 18:09	08:27 16:08	09:06 13:04-13:32/28 15:55
25	05:17 21:57	06:18 20:47	07:20 18:31-18:54/23 19:25	07:23 17:07	08:29 16:06	09:06 13:04-13:32/28 15:55
26	05:19 21:55	06:20 07:16-07:25/9 20:45	07:22 18:31-18:51/20 19:22	07:25 17:04	08:31 16:05	09:06 13:05-13:33/28 15:56
27	05:21 21:53	06:22 07:14-07:27/13 20:42	07:24 18:32-18:48/16 19:19	07:27 17:02	08:33 16:04	09:06 13:05-13:33/28 15:57
28	05:22 21:51	06:24 07:12-07:28/16 20:40	07:26 18:34-18:46/12 19:16	07:29 17:00	08:34 16:02	09:07 13:06-13:33/27 15:58
29	05:24 21:49	06:26 07:11-07:29/18 20:37	07:28 18:36-18:44/8 19:14	07:31 16:57	08:36 16:01	09:07 13:07-13:34/27 15:59
30	05:26 21:47	06:28 07:10-07:30/20 20:34	07:30 18:40-18:41/1 19:11	07:33 16:55	08:38 16:00	09:07 13:07-13:34/27 16:00
31	05:28 21:45	06:30 07:09-07:30/21 20:32		07:36 16:53		09:07 13:09-13:35/26 16:01
Potential sun hours	530	470	385	323	247	215
Sum of minutes with flicker	87	97	819	0	0	1444

Table 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

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Description: VPSP wind farm

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Calculated:  
19/05/2022 11:39/3.5.576

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Operational time

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

	January	February	March	April	May	June
1	09:06 16:02	08:30 17:00	07:26 16:58-17:18/20 18:02 17:20-17:33/13	07:03 20:08	05:47 06:20-06:47/27 21:11	04:50 05:27-05:49/22 22:08
2	09:06 16:04	08:28 17:02	07:23 16:59-17:17/18 18:04 17:19-17:35/16	07:01 20:10	05:45 06:20-06:47/27 21:13	04:49 05:27-05:51/24 22:10
3	09:06 16:05	08:26 17:04	07:21 17:01-17:16/15 18:07 17:19-17:38/19	06:58 20:12	05:42 06:20-06:47/27 21:15	04:48 05:27-05:52/25 22:11
4	09:05 16:06	08:24 17:06	07:18 17:03-17:13/10 18:09 17:18-17:39/21	06:55 20:14	05:40 06:20-06:47/27 21:17	04:47 05:26-05:52/26 22:12
5	09:05 16:08	08:22 17:09	07:16 17:17-17:39/22 18:11	06:53 20:16	05:38 06:19-06:46/27 21:19	04:46 05:26-05:52/26 22:14
6	09:04 16:09	08:20 17:11	07:13 17:18-17:39/21 18:13	06:50 20:18	05:36 06:19-06:46/27 21:21	04:45 05:25-05:52/27 22:15
7	09:04 16:11	08:18 17:13	07:10 17:18-17:38/20 18:15	06:47 20:21	05:33 06:19-06:45/26 21:23	04:44 05:26-05:54/28 22:16
8	09:03 16:12	08:16 17:15	07:08 17:18-17:37/19 18:17 07:34-07:35/1	06:45 20:23	05:31 06:20-06:45/25 21:25	04:43 05:25-05:54/29 22:17
9	09:02 16:14	08:14 17:18	07:05 17:20-17:37/17 18:20 07:31-07:38/7	06:42 20:25	05:29 06:20-06:44/24 21:27	04:43 05:26-05:54/28 22:18
10	09:02 16:15	08:11 17:20	07:02 17:21-17:35/14 18:22 07:28-07:39/11	06:40 20:27	05:27 06:22-06:45/23 21:29	04:42 05:25-05:54/29 22:19
11	09:01 16:17	08:09 17:22	07:00 17:22-17:32/10 18:24 07:25-07:40/15	06:37 20:29	05:25 06:22-06:44/22 21:31	04:41 05:26-05:55/29 22:20
12	09:00 16:19	08:07 17:24	06:57 07:23-07:41/18 18:26	06:34 20:31	05:23 06:23-06:42/19 21:33	04:41 05:25-05:55/30 22:21
13	08:59 16:21	08:05 16:53-16:55/2 17:27	06:54 07:21-07:41/20 18:28	06:32 20:33	05:21 06:24-06:41/17 21:35	04:40 05:26-05:55/29 22:22
14	08:58 16:22	08:02 16:51-16:57/6 17:29	06:52 07:20-07:41/21 18:30	06:29 20:35	05:19 06:25-06:39/14 21:37	04:40 05:26-05:56/30 22:22
15	08:57 16:24	08:00 16:49-16:59/10 17:31	06:49 07:20-07:41/21 18:32	06:27 20:37	05:17 06:27-06:37/10 21:39	04:40 05:26-05:56/30 22:23
16	08:55 16:26	07:58 16:48-17:02/14 17:33	06:46 07:20-07:40/20 18:35	06:24 20:39	05:15 06:32-06:33/1 21:41	04:39 05:26-05:57/31 22:24
17	08:54 16:28	07:55 16:47-17:04/17 17:36	06:44 07:20-07:39/19 18:37	06:21 20:42	05:13 21:43	04:39 05:27-05:57/30 22:24
18	08:53 16:30	07:53 16:47-17:07/20 17:38	06:41 07:21-07:38/17 18:39	06:19 20:44	05:11 21:45	04:39 05:27-05:57/30 22:25
19	08:52 16:32	07:51 16:46-17:09/23 17:40	06:38 07:22-07:36/14 18:41	06:16 20:46	05:09 21:47	04:39 05:27-05:58/31 22:25
20	08:50 16:34	07:48 16:46-17:12/26 17:42	06:36 07:24-07:34/10 18:43	06:14 20:48	05:08 21:48	04:39 05:27-05:58/31 22:25
21	08:49 16:36	07:46 16:45-17:14/29 17:45	06:33 18:45	06:11 20:50	05:06 21:50	04:39 05:27-05:58/31 22:26
22	08:47 16:38	07:43 16:45-17:16/31 17:47	06:30 18:47	06:09 20:52	05:04 21:52	04:39 05:27-05:58/31 22:26
23	08:46 16:40	07:41 16:46-17:19/33 17:49	06:28 18:49	06:06 20:54	05:03 21:54	04:40 05:27-05:58/31 22:26
24	08:44 16:42	07:38 16:46-17:20/34 17:51	06:25 18:51	06:04 06:31-06:41/10 20:56	05:01 21:56	04:40 05:28-05:58/30 22:26
25	08:43 16:44	07:36 16:48-17:21/33 17:53	06:22 18:53	06:01 06:28-06:42/14 20:58	04:59 05:37-05:38/1 21:57	04:40 05:28-05:58/30 22:26
26	08:41 16:47	07:33 16:48-17:20/32 17:56	06:20 18:56	05:59 06:26-06:44/18 21:00	04:58 05:33-05:43/10 21:59	04:41 05:29-05:59/30 22:26
27	08:39 16:49	07:31 16:50-17:20/30 17:58 17:23-17:28/5	06:17 18:58	05:56 06:24-06:45/21 21:02	04:56 05:31-05:45/14 22:01	04:41 05:28-05:59/31 22:26
28	08:37 16:51	07:28 16:54-17:20/26 18:00 17:22-17:31/9	06:14 19:00	05:54 06:23-06:46/23 21:05	04:55 05:30-05:46/16 22:02	04:42 05:29-05:59/30 22:26
29	08:36 16:53		07:12 20:02	05:52 06:21-06:46/25 21:07	04:54 05:29-05:48/19 22:04	04:43 05:29-05:59/30 22:25
30	08:34 16:55		07:09 20:04	05:49 06:21-06:46/25 21:09	04:52 05:28-05:48/20 22:05	04:43 05:29-05:59/30 22:25
31	08:32 16:57		07:06 20:06		04:51 05:27-05:49/22 22:07	
Potential sun hours	235	266	366	426	508	529
Sum of minutes with flicker	0	380	449	136	445	869

Table 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: VPSP wind farm  
Description: VPSP wind farm

Licensed user:  
SIA Estonian, Latvian & Lithuanian environment  
Vilandes 3-6  
LV-1010 Riga  
0037167242411  
Anna / anna@environment.lv  
Calculated:  
19/05/2022 11:39/3.5.576

## SHADOW - Calendar per WTG

WTG: 1.4.A - Siemens Gamesa SG 6.6-170 6600 170.0 !O! hub: 165.0 m (TOT: 250.0 m) (17)

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1.35	3.07	4.72	8.16	9.63	10.93	9.79	7.85	5.92	3.23	1.29	0.72

Operational time

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Sum
293	300	348	355	333	399	506	566	582	663	919	1,110	790	574	487	406	8,631

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

	July	August	September	October	November	December
1	04:44 05:30-05:59/29 22:25	05:30 06:33-06:53/20 21:43	06:32 20:29	07:32 08:01-08:20/19 19:08	07:38 16:50	08:40 15:59
2	04:45 05:30-06:00/30 22:24	05:32 06:32-06:54/22 21:41	06:34 20:26	07:34 18:03-18:09/6 19:06 08:03-08:19/16	07:40 16:48	08:41 15:58
3	04:46 05:30-05:59/29 22:24	05:34 06:31-06:54/23 21:39	06:36 20:24	07:36 18:00-18:12/12 19:03 08:05-08:18/13	07:42 16:46	08:43 15:57
4	04:47 05:31-05:59/28 22:23	05:36 06:30-06:55/25 21:37	06:38 20:21	07:38 17:57-18:13/16 19:00 08:07-08:16/9	07:44 16:44	08:45 15:57
5	04:48 05:31-05:59/28 22:22	05:38 06:30-06:55/25 21:35	06:40 20:19	07:40 17:56-18:14/18 18:58 08:09-08:13/4	07:47 16:42	08:46 15:56
6	04:49 05:31-05:59/28 22:22	05:40 06:30-06:56/26 21:33	06:42 20:16	07:42 17:54-18:14/20 18:55	07:49 16:40	08:48 15:55
7	04:50 05:32-05:59/27 22:21	05:42 06:30-06:56/26 21:31	06:44 20:13	07:45 17:53-18:14/21 18:52	07:51 16:37	08:49 15:54
8	04:51 05:32-05:59/27 22:20	05:44 06:29-06:57/28 21:28	06:46 20:10	07:47 17:53-18:14/21 18:50	07:53 16:35	08:51 15:54
9	04:52 05:33-05:58/25 22:19	05:46 06:28-06:56/28 21:26	06:48 20:08	07:49 17:40-17:47/7 18:47 17:53-18:15/22	07:55 16:33	08:52 15:53
10	04:53 05:34-05:59/25 22:18	05:48 06:28-06:56/28 21:24	06:50 20:05	07:51 17:36-17:49/13 18:45 17:53-18:13/20	07:57 16:31	08:54 15:53
11	04:55 05:35-05:58/23 22:17	05:50 06:29-06:55/26 21:21	06:52 20:02	07:53 17:34-17:51/17 18:42 17:53-18:10/17	08:00 16:29	08:55 15:53
12	04:56 05:35-05:58/23 22:16	05:52 06:29-06:55/26 21:19	06:54 20:00	07:55 17:32-17:51/19 18:39 17:53-18:08/15	08:02 16:28	08:56 15:52
13	04:58 05:36-05:57/21 22:15	05:54 06:29-06:55/26 21:17	06:56 19:57	07:57 17:31-17:52/21 18:37 17:54-18:05/11	08:04 16:26	08:57 15:52
14	04:59 05:37-05:57/20 22:13	05:56 06:30-06:54/24 21:14	06:58 19:54	07:59 17:25-17:53/28 18:34 17:55-18:02/7	08:06 16:24	08:58 15:52
15	05:00 05:38-05:56/18 22:12	05:58 06:31-06:53/22 21:12	07:00 19:52	08:01 17:22-17:53/31 18:32 17:58-18:00/2	08:08 16:22	08:59 15:52
16	05:02 05:39-05:54/15 22:11	06:00 06:31-06:51/20 21:10	07:02 19:49	08:03 17:20-17:52/32 18:29	08:10 16:20	09:00 15:52
17	05:03 05:41-05:53/12 22:09	06:02 06:33-06:50/17 21:07	07:04 19:46	08:05 17:18-17:52/34 18:27	08:12 16:18	09:01 15:52
18	05:05 05:43-05:51/8 22:08	06:04 06:35-06:48/13 21:05	07:06 19:44	08:08 17:17-17:51/34 18:24	08:15 16:17	09:02 15:52
19	05:07 22:07	06:06 06:37-06:46/9 21:02	07:08 19:41	08:10 17:17-17:49/32 18:21	08:17 16:15	09:03 15:52
20	05:08 22:05	06:08 21:00	07:10 19:38	08:12 17:16-17:46/30 18:19	08:19 16:13	09:04 15:53
21	05:10 22:03	06:10 20:57	07:12 19:35	08:14 17:16-17:44/28 18:17	08:21 16:12	09:04 15:53
22	05:12 22:02	06:12 20:55	07:14 19:33	08:16 17:16-17:42/26 18:14	08:23 16:10	09:05 15:54
23	05:13 22:00	06:14 20:52	07:16 08:09-08:17/8 19:30	08:18 17:16-17:39/23 18:12	08:25 16:09	09:05 15:54
24	05:15 21:58	06:16 20:50	07:18 08:06-08:20/14 19:27	08:20 17:16-17:36/20 18:09	08:27 16:08	09:06 15:55
25	05:17 21:57	06:18 20:47	07:20 08:04-08:21/17 19:25	07:23 16:17-16:34/17 17:07	08:29 16:06	09:06 15:55
26	05:19 21:55	06:20 20:45	07:22 08:03-08:21/18 19:22	07:25 16:18-16:31/13 17:04	08:31 16:05	09:06 15:56
27	05:21 21:53	06:22 20:42	07:24 08:02-08:22/20 19:19	07:27 16:18-16:28/10 17:02	08:33 16:04	09:06 15:57
28	05:22 06:40-06:46/6 21:51	06:24 20:40	07:26 08:01-08:22/21 19:16	07:29 16:21-16:26/5 17:00	08:34 16:02	09:07 15:58
29	05:24 06:37-06:49/12 21:49	06:26 20:37	07:28 08:01-08:21/20 19:14	07:31 16:57	08:36 16:01	09:07 15:59
30	05:26 06:35-06:50/15 21:47	06:28 20:34	07:30 08:00-08:21/21 19:11	07:33 16:55	08:38 16:00	09:07 16:00
31	05:28 06:34-06:52/18 21:45	06:30 20:32		07:36 16:53		09:07 16:01
Potential sun hours	530	470	385	323	247	216
Sum of minutes with flicker	467	434	139	709	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