

SHADOW - Main Result

Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

Minimum sun height over horizon for influence 3 °
Day step for calculation 1 days
Time step for calculation 1 minutes

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2,21 3,46 4,25 5,75 7,79 7,45 8,46 7,89 5,56 4,46 1,95 1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

Monthly aggregation of real case reduction

A ZVI (Zones of Visual Influence) calculation is performed before flicker calculation so non visible WTG do not contribute to calculated flicker values. A WTG will be visible if it is visible from any part of the receiver window. The ZVI calculation is based on the following assumptions:

DHM: Project Wizard Elevation Data Grid (Czech Republic DTM - 20m grid)

Receptor grid resolution: 1,0 m

Topographic shadow included in calculation

All coordinates are in

Geo [deg]-WGS84

WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.					Calculation distance [m]	RPM [RPM]
1	15,966427° E	49,499399° N	550,1 [m]	V1	Yes	ENERCON	E-138 EP3 E3-4 260	4 260	138,3	91,0	1 691	11,1
2	15,966344° E	49,503236° N	547,7 [m]	V2	Yes	ENERCON	E-138 EP3 E3-4 260	4 260	138,3	91,0	1 691	11,1
3	15,965461° E	49,509942° N	547,1 [m]	V3	Yes	ENERCON	E-138 EP3 E3-4 260	4 260	138,3	91,0	1 691	11,1

Shadow receptor-Input

No.	Name	Longitude	Latitude	Z	Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
				[m]	[m]	[m]	[m]	[°]		[m]
A	RB1	15,968671° E	49,515583° N	533,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
B	RB2	15,975848° E	49,511135° N	544,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
C	RB3	15,975983° E	49,510741° N	546,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
D	RB4	15,977865° E	49,509526° N	541,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
E	RB5	15,979255° E	49,509139° N	536,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
F	RB6	15,980183° E	49,508575° N	531,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
G	RB7	15,981739° E	49,507136° N	534,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
H	RB8	15,981336° E	49,505631° N	541,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
I	RB9	15,984539° E	49,503625° N	553,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
J	RB10	15,983090° E	49,502932° N	557,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
K	RB11	15,983933° E	49,492399° N	528,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
L	RB12	15,983557° E	49,492068° N	527,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
M	RB13	15,982704° E	49,491650° N	525,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
N	RB14	15,948055° E	49,493333° N	541,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
O	RB15	15,944413° E	49,494054° N	542,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
P	RB16	15,938775° E	49,500939° N	544,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0

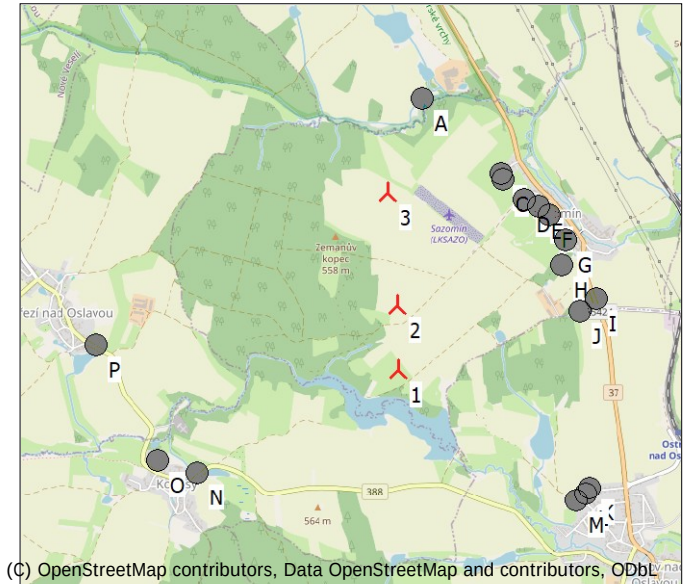
Calculation Results

Shadow receptor

Shadow, expected values

No.	Name	Shadow hours per year [h/year]
A	RB1	0:16
B	RB2	8:35
C	RB3	12:25

To be continued on next page...



New WTG

Scale 1:50 000

Shadow receptor

SHADOW - Main Result

...continued from previous page

Shadow, expected values	
No.	Name
Shadow hours per year [h/year]	
D	RB4
E	RB5
F	RB6
G	RB7
H	RB8
I	RB9
J	RB10
K	RB11
L	RB12
M	RB13
N	RB14
O	RB15
P	RB16

Total amount of flickering on the shadow receptors caused by each WTG

No.	Name	Expected
[h/year]		
1	V1	20:58
2	V2	20:24
3	V3	43:15

Total times in Receptor wise and WTG wise tables can differ, as a WTG can lead to flicker at 2 or more receptors simultaneously and/or receptors may receive flicker from 2 or more WTGs simultaneously.

SHADOW - Calendar

Shadow receptor: A - RB1

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUC HAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December	
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:55 20:54	04:53 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00	
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	05:34 20:14	04:55 20:55	04:54 21:07	05:28 20:37	06:12 19:40	06:56 18:35	06:45 16:35	07:31 16:00	
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59	
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	05:31 20:17	04:53 20:57	04:55 21:06	05:30 20:34	06:15 19:36	06:59 18:31	06:49 16:31	07:34 15:59	
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:19	04:53 20:58	04:56 21:06	05:32 20:33	06:17 19:33	07:01 18:29	06:50 16:30	07:35 15:58	
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:59	04:57 21:05	05:33 20:31	06:18 19:31	07:02 18:27	06:52 16:28	07:36 15:58	
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:22	04:52 20:59	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 15:58	
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	04:51 21:00	04:58 21:04	05:36 20:28	06:21 19:27	07:06 18:22	06:55 16:25	07:39 15:57	
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	04:59 21:04	05:37 20:26	06:23 19:25	07:07 18:20	06:57 16:24	07:40 15:57	
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:41	05:21 20:26	04:50 21:02	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57	
11	07:51 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	05:40 20:23	06:25 19:21	07:10 18:16	07:00 16:21	07:42 15:57	
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:02	05:42 20:21	06:27 19:19	07:12 18:14	07:02 16:19	07:43 15:57	
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	04:50 21:04	05:03 21:01	05:43 20:19	06:28 19:16	07:13 18:12	07:03 16:18	07:44 15:57	
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:32	04:49 21:04	05:04 21:00	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57	
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:49 21:05	05:05 20:59	05:46 20:15	06:31 19:12	07:16 18:08	07:06 16:15	07:46 15:57	
16	07:47 16:25	07:06 17:16	06:10 18:02	06:05 19:50	05:12 20:34	04:49 21:05	05:06 20:58	05:48 20:14	06:33 19:10	07:18 18:06	07:08 16:14	07:46 15:57	
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:06	05:07 20:57	05:49 20:12	06:34 19:08	07:19 18:04	07:10 16:13	07:47 15:57	13:24 (3)
18	07:46 16:28	07:03 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	05:50 20:10	06:36 19:05	07:21 18:02	07:11 16:12	07:48 15:58	13:25 (3)
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:49 15:58	13:26 (3)
20	07:44 16:31	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 21:07	05:11 20:54	05:53 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:58	13:27 (3)
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:08	07:50 15:59	13:28 (3)
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:56 20:02	06:42 18:57	07:27 17:54	07:17 16:07	07:50 15:59	13:29 (3)
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:44	04:50 21:07	05:14 20:51	05:58 20:00	06:43 18:55	07:29 17:52	07:19 16:06	07:51 16:00	13:30 (3)
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:59 19:58	06:45 18:52	07:31 17:51	07:20 16:06	07:51 16:00	13:31 (3)
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 21:08	05:17 20:48	06:01 19:56	06:46 18:50	07:32 16:49	07:22 16:05	07:52 16:01	13:32 (3)
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:08	05:18 20:47	06:02 19:54	06:47 18:48	07:33 16:47	07:23 16:04	07:52 16:02	13:33 (3)
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	05:00 20:48	04:51 21:08	05:20 20:46	06:04 19:52	06:49 18:46	07:34 16:45	07:25 16:03	07:52 16:02	13:34 (3)
28	07:35 16:44	06:43 17:36	05:44 18:21	05:42 20:08	04:59 20:50	04:52 21:07	05:21 20:45	06:05 19:50	06:50 18:44	07:35 16:43	07:26 16:02	07:53 16:03	13:35 (3)
29	07:34 16:46		06:42 19:22	05:40 20:10	04:58 20:51	04:52 21:07	05:22 20:43	06:07 19:48	06:52 18:42	07:36 16:41	07:27 16:02	07:53 16:04	13:36 (3)
30	07:33 16:48			06:40 20:11	04:57 20:52	04:53 21:07	05:24 20:42	06:08 19:46	06:53 18:39	07:37 16:40	07:29 16:01	07:53 16:05	13:37 (3)
31	07:31 16:49		06:38 19:25		04:56 20:53		05:25 20:40	06:09 19:44		06:42 16:38		07:53 16:06	13:38 (3)
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256	
Total, worst case													68
Sun reduction													0,24
Oper. time red.													1,00
Wind dir. red.													1,00
Total reduction													0,24
Total, real													16

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

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

Shadow receptor: B - RB2

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:53											
2	07:53	14:50 (2)	07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
3	07:53	14:55 (2)	07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
4	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
5	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
6	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
7	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
8	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
9	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
10	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
11	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
12	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
13	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
14	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
15	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
16	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
17	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
18	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
19	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
20	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
21	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
22	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
23	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
24	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
25	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
26	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
27	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
28	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
29	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
30	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
31	07:53		07:30	06:41	06:36	05:36	04:55	04:53	05:26	06:11	06:55	17:38 (3)
Potential sun hours	269		283	368	411	475	486	490	447	379	335	275
Total, worst case	5		567							505	68	261
Sun reduction	0,25		0,36							0,44	0,41	0,24
Oper. time red.	1,00		1,00							1,00	1,00	1,00
Wind dir. red.	1,00		1,00							1,00	1,00	1,00
Total reduction	0,25		0,36							0,44	0,41	0,24
Total, real	1		203							222	28	61

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

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

SHADOW - Calendar

Shadow receptor: C - RB3

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June
1	07:53 16:07 22	14:49 (2) 15:11 (2) 07:30 16:51 17:38	06:41 17:38 06:39	06:36 19:27 29	18:08 (3) 18:37 (3) 20:13	04:55 20:54 04:55
2	07:53 16:08 21	14:50 (2) 15:11 (2) 07:29 16:53 17:39	06:39 17:39 06:37	06:34 19:28 25	18:10 (3) 18:35 (3) 20:14	04:55 20:55 04:54
3	07:53 16:09 20	14:50 (2) 15:10 (2) 07:27 16:54 17:41	06:37 17:41 06:35	06:32 19:30 20	18:12 (3) 18:32 (3) 20:16	04:54 20:56 04:53
4	07:53 16:10 19	14:51 (2) 15:10 (2) 07:26 16:56 17:43	06:35 17:43 06:33	06:29 19:31 12	18:16 (3) 18:28 (3) 20:17	04:53 20:57 04:53
5	07:53 16:11 17	14:53 (2) 15:10 (2) 07:24 16:58 17:44	06:33 17:44 06:31	06:27 19:33 06:25	05:29 20:19 05:28	04:53 20:58 04:52
6	07:52 16:12 16	14:53 (2) 15:09 (2) 07:23 16:59 17:46	06:31 17:46 06:29	06:25 19:34 06:23	05:28 20:20 05:26	04:52 20:59 04:52
7	07:52 16:13 14	14:55 (2) 15:09 (2) 07:21 16:59 17:48	06:29 17:48 06:27	06:23 19:36 06:21	05:26 20:21 05:24	04:52 20:59 04:51
8	07:52 16:15 10	14:57 (2) 15:07 (2) 07:20 17:03 17:49	06:27 17:49 06:25	06:21 19:37 06:19	05:24 20:23 05:23	04:51 21:00 04:51
9	07:51 16:16 6	15:00 (2) 15:06 (2) 07:18 17:04 17:51	06:25 17:51 06:23	06:19 19:39 06:17	05:23 20:24 05:21	04:51 21:01 04:50
10	07:51 16:17 11	07:15 17:06 17:52	06:21 17:52 06:21	06:15 19:41 17:18 (3)	05:20 20:26 05:20	04:50 21:02 04:50
11	07:51 16:18 12	07:15 17:08 17:54	06:21 17:54 06:19	06:15 19:42 17:16 (3)	05:20 20:27 05:18	04:50 21:02 04:50
12	07:50 16:20 13	07:13 17:10 17:56	06:19 17:56 06:17	06:13 19:44 17:14 (3)	05:18 20:29 05:17	04:50 21:03 04:50
13	07:49 16:21 14	07:11 17:11 17:57	06:17 17:57 06:14	06:11 19:45 17:12 (3)	05:17 20:30 05:15	04:50 21:04 04:49
14	07:49 16:23 15	07:10 17:13 17:59	06:14 17:59 06:12	06:09 19:47 17:11 (3)	05:15 20:32 05:14	04:49 21:04 04:49
15	07:48 16:24 16	07:08 17:15 18:00	06:12 18:00 06:10	06:07 19:48 17:10 (3)	05:14 20:33 05:12	04:49 21:05 04:49
16	07:47 16:25 17	07:06 17:16 18:02	06:10 18:02 06:08	06:05 19:50 17:32 (3)	05:12 20:34 05:11	04:49 21:05 04:49
17	07:47 16:27 18	07:04 17:18 18:03	06:08 18:03 06:06	06:03 19:51 17:07 (3)	05:11 20:36 05:10	04:49 21:06 04:49
18	07:46 16:28 19	07:02 17:20 18:05	06:06 18:05 06:04	06:01 19:53 17:35 (3)	05:10 20:37 05:09	04:49 21:06 04:49
19	07:45 16:30 20	07:01 17:21 18:07	06:04 18:07 06:02	05:59 19:54 17:06 (3)	05:09 20:38 05:07	04:49 21:06 04:49
20	07:44 16:31 21	06:59 17:23 18:08	06:02 18:08 05:59	05:57 19:56 17:05 (3)	05:07 20:40 05:06	04:49 21:07 04:49
21	07:43 16:33 22	06:57 17:25 18:10	05:59 18:10 05:57	05:55 19:57 17:05 (3)	05:06 20:41 05:05	04:49 21:07 04:50
22	07:42 16:35 23	06:55 17:26 18:11	05:57 18:11 05:55	05:53 19:59 17:05 (3)	05:05 20:42 05:04	04:50 21:07 04:50
23	07:41 16:36 24	06:53 17:28 18:13	05:55 18:13 05:53	05:51 20:00 17:43 (3)	05:04 20:44 05:03	04:50 21:07 04:50
24	07:40 16:38 25	06:51 17:30 18:14	05:53 18:14 05:51	05:49 20:02 17:44 (3)	05:03 20:45 05:02	04:50 21:07 04:51
25	07:39 16:39 26	06:49 17:31 18:16	05:51 18:16 05:49	05:47 20:03 17:45 (3)	05:02 20:46 05:01	04:51 21:07 04:51
26	07:38 16:41 27	06:47 17:33 18:17	05:49 18:17 05:47	05:45 20:05 17:05 (3)	05:01 20:47 05:00	04:51 21:07 04:51
27	07:37 16:43 28	06:45 17:35 18:19	05:47 18:19 05:44	05:43 20:06 17:44 (3)	05:00 20:48 04:59	04:51 21:07 04:52
28	07:35 16:44 29	06:43 17:36 18:21	05:44 18:21 05:42	05:41 20:08 17:43 (3)	04:59 20:49 04:58	04:52 21:07 04:52
29	07:34 16:46 30	06:42 19:22 06:40	05:40 19:22 06:38	05:40 20:10 18:42 (3)	04:58 20:51 04:57	04:52 21:07 04:53
30	07:33 16:48 31	06:40 19:24 06:38	06:38 19:24 18:07 (3)	05:38 20:11 18:41 (3)	04:57 20:52 04:56	04:53 21:07 04:56
Potential sun hours	269	283	368	411	475	486
Total, worst case	145		607	86		
Sun reduction	0,25		0,36	0,42		
Oper. time red.	1,00		1,00	1,00		
Wind dir. red.	1,00		1,00	1,00		
Total reduction	0,25		0,36	0,42		
Total, real	37		217	36		

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

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

SHADOW - Calendar

Shadow receptor: C - RB3

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December	
1	04:53 21:07	05:26 20:39	06:11 19:42	06:55 18:37	17:55 (3) 18:06 (3)	06:44 16:00	
2	04:54 21:07	05:28 20:37	06:12 19:40	06:56 18:35	17:56 (3) 18:03 (3)	06:45 16:00	
3	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	17:59 (3) 18:01 (3)	06:47 16:33	14:43 (2)
4	04:55 21:06	05:30 20:34	06:15 19:36	06:59 18:31		06:48 16:31	15:59 14:42 (2)
5	04:56 21:06	05:32 20:33	06:17 19:33	07:01 18:29		06:50 16:30	07:35 14:52 (2)
6	04:57 21:05	05:33 20:31	06:18 19:31	07:02 18:27		06:52 16:28	07:36 15:58
7	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25		06:53 16:27	07:38 15:58
8	04:58 21:04	05:36 20:28	06:21 19:27	18:10 (3) 18:22 (3)	07:06 18:22	06:55 16:25	07:39 15:57
9	04:59 21:04	05:37 20:26	06:23 19:25	18:07 (3) 18:26 (3)	07:07 18:20	06:57 16:24	07:40 15:57
10	05:00 21:03	05:39 20:24	06:24 19:23	18:04 (3) 18:28 (3)	07:09 18:18	06:58 16:22	07:41 15:57
11	05:01 21:02	05:40 20:23	06:25 19:21	18:02 (3) 18:30 (3)	07:10 18:16	07:00 16:21	07:42 15:57
12	05:02 21:02	05:42 20:21	06:27 19:18	18:00 (3) 18:30 (3)	07:12 18:14	07:01 16:19	07:43 15:57
13	05:03 21:01	05:43 20:19	06:28 19:16	17:57 (3) 18:31 (3)	07:13 18:12	07:03 16:18	07:44 15:57
14	05:04 21:00	05:45 20:17	06:30 19:14	17:57 (3) 18:32 (3)	07:15 18:10	07:05 16:17	07:45 15:57
15	05:05 20:59	05:46 20:15	06:31 19:12	17:55 (3) 18:32 (3)	07:16 18:08	07:06 16:15	07:46 15:57
16	05:06 20:58	05:48 20:14	06:33 19:10	17:54 (3) 18:33 (3)	07:18 18:06	07:08 16:14	07:46 15:57
17	05:07 20:57	05:49 20:12	06:34 19:08	17:53 (3) 18:33 (3)	07:19 18:04	07:09 16:13	07:47 15:57
18	05:09 20:56	05:50 20:10	06:36 19:05	17:53 (3) 18:33 (3)	07:21 18:02	07:11 16:12	07:48 15:58
19	05:10 20:55	05:52 20:08	06:37 19:03	17:52 (3) 18:31 (3)	07:23 18:00	07:13 16:11	07:49 15:58
20	05:11 20:54	05:53 20:06	06:39 19:01	17:51 (3) 18:29 (3)	07:24 17:58	07:14 16:09	07:49 15:58
21	05:12 20:53	05:55 20:04	06:40 18:59	17:51 (3) 18:27 (3)	07:26 17:56	07:16 16:08	07:50 15:59
22	05:13 20:52	05:56 20:02	06:42 18:57	17:50 (3) 18:25 (3)	07:27 17:54	07:17 16:07	07:50 15:59
23	05:14 20:51	05:58 20:00	06:43 18:55	17:50 (3) 18:23 (3)	07:29 17:52	07:19 16:06	07:51 16:00
24	05:16 20:50	05:59 19:58	06:44 18:52	17:50 (3) 18:20 (3)	07:31 17:51	07:20 16:06	07:51 16:00
25	05:17 20:48	06:01 19:56	06:46 18:50	17:50 (3) 18:19 (3)	06:32 16:49	07:22 16:05	07:52 16:01
26	05:18 20:47	06:02 19:54	06:47 18:48	17:50 (3) 18:16 (3)	06:34 16:47	07:23 16:04	07:52 16:02
27	05:20 20:46	06:04 19:52	06:49 18:46	17:51 (3) 18:14 (3)	06:35 16:45	07:25 16:03	07:52 16:02
28	05:21 20:44	06:05 19:50	06:50 18:44	17:51 (3) 18:12 (3)	06:37 16:43	07:26 16:02	07:53 16:03
29	05:22 20:43	06:06 19:48	06:52 18:42	17:52 (3) 18:10 (3)	06:39 16:41	07:27 16:02	07:53 16:04
30	05:24 20:42	06:08 19:46	06:53 18:39	17:53 (3) 18:07 (3)	06:40 16:40	07:29 16:01	07:53 16:05
31	05:25 20:40	06:09 19:44		06:42 16:38			07:53 16:06
Potential sun hours	490	447	379	335		275	256
Total, worst case			680	20			628
Sun reduction			0,44	0,41			0,24
Oper. time red.			1,00	1,00			1,00
Wind dir. red.			1,00	1,00			1,00
Total reduction			0,44	0,41			0,24
Total, real			299	8			148

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

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

SHADOW - Calendar

Shadow receptor: D - RB4

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January		February		March		April		May		June	
1	07:53		15:26 (2)	07:30	15:40 (2)	06:41	06:36		18:37 (3)	05:36	04:55	
	16:07	5	15:31 (2)	16:51	15:53 (2)	17:38	19:27	15	18:52 (3)	20:13	20:54	
2	07:53		15:26 (2)	07:29	15:45 (2)	06:39	06:34		18:36 (3)	05:34	04:55	
	16:08	6	15:32 (2)	16:53	15:50 (2)	17:39	19:28	18	18:54 (3)	20:14	20:55	
3	07:53		15:25 (2)	07:27		06:37	06:32		18:35 (3)	05:33	04:54	
	16:09	8	15:33 (2)	16:54		17:41	19:30	21	18:56 (3)	20:16	20:56	
4	07:53		15:26 (2)	07:26		06:35	06:29		18:35 (3)	05:31	04:53	
	16:10	8	15:34 (2)	16:56		17:43	19:31	22	18:57 (3)	20:17	20:57	
5	07:53		15:26 (2)	07:24		06:33	06:27		18:34 (3)	05:29	04:53	
	16:11	9	15:35 (2)	16:58		17:44	19:33	25	18:59 (3)	20:19	20:58	
6	07:52		15:26 (2)	07:23		06:31	06:25		18:34 (3)	05:28	04:52	
	16:12	10	15:36 (2)	16:59		17:46	19:34	27	19:01 (3)	20:20	20:58	
7	07:52		15:26 (2)	07:21		06:29	06:23		18:34 (3)	05:26	04:52	
	16:13	11	15:37 (2)	17:01		17:48	19:36	29	19:03 (3)	20:21	20:59	
8	07:52		15:26 (2)	07:20		06:27	06:21		18:34 (3)	05:24	04:51	
	16:15	12	15:38 (2)	17:03		17:49	19:37	30	19:04 (3)	20:23	21:00	
9	07:51		15:26 (2)	07:18		06:25	06:19		18:33 (3)	05:23	04:51	
	16:16	14	15:40 (2)	17:04		17:51	19:39	32	19:05 (3)	20:24	21:01	
10	07:51		15:26 (2)	07:16		06:23	06:17		18:33 (3)	05:21	04:50	
	16:17	15	15:41 (2)	17:06		17:52	19:40	34	19:07 (3)	20:26	21:02	
11	07:51		15:27 (2)	07:15		06:21	06:15		18:34 (3)	05:20	04:50	
	16:18	15	15:42 (2)	17:08		17:54	19:42	32	19:06 (3)	20:27	21:02	
12	07:50		15:27 (2)	07:13		06:19	06:13		18:34 (3)	05:18	04:50	
	16:20	16	15:43 (2)	17:10		17:56	19:44	31	19:05 (3)	20:29	21:03	
13	07:49		15:26 (2)	07:11		06:17	06:11		18:35 (3)	05:17	04:50	
	16:21	19	15:45 (2)	17:11		17:57	19:45	29	19:04 (3)	20:30	21:04	
14	07:49		15:27 (2)	07:10		06:14	06:09		18:36 (3)	05:15	04:49	
	16:23	20	15:47 (2)	17:13		17:59	19:47	26	19:02 (3)	20:32	21:04	
15	07:48		15:27 (2)	07:08		06:12	06:07		18:37 (3)	05:14	04:49	
	16:24	21	15:48 (2)	17:15		18:00	19:48	24	19:01 (3)	20:33	21:05	
16	07:47		15:27 (2)	07:06		06:10	06:05		18:39 (3)	05:12	04:49	
	16:25	22	15:49 (2)	17:16		18:02	19:50	20	18:59 (3)	20:34	21:05	
17	07:47		15:28 (2)	07:04		06:08	06:03		18:41 (3)	05:11	04:49	
	16:27	22	15:50 (2)	17:18		18:03	19:51	15	18:56 (3)	20:36	21:06	
18	07:46		15:28 (2)	07:02		06:06	06:01		18:45 (3)	05:10	04:49	
	16:28	24	15:52 (2)	17:20		18:05	19:53	7	18:52 (3)	20:37	21:06	
19	07:45		15:28 (2)	07:01		06:04	05:59			05:09	04:49	
	16:30	25	15:53 (2)	17:21		18:07	19:54			20:38	21:06	
20	07:44		15:29 (2)	06:59		06:02	05:57			05:07	04:49	
	16:31	26	15:55 (2)	17:23		18:08	19:56			20:40	21:07	
21	07:43		15:29 (2)	06:57		05:59	05:55			05:06	04:49	
	16:33	28	15:57 (2)	17:25		18:10	19:57			20:41	21:07	
22	07:42		15:30 (2)	06:55		05:57	05:53			05:05	04:50	
	16:35	28	15:58 (2)	17:26		18:11	19:59			20:42	21:07	
23	07:41		15:30 (2)	06:53		05:55	05:51			05:04	04:50	
	16:36	30	16:00 (2)	17:28		18:13	20:00			20:43	21:07	
24	07:40		15:30 (2)	06:51		05:53	05:49			05:03	04:50	
	16:38	30	16:00 (2)	17:30		18:14	20:02			20:45	21:07	
25	07:39		15:31 (2)	06:49		05:51	05:47			05:02	04:51	
	16:39	29	16:00 (2)	17:31		18:16	20:03			20:46	21:07	
26	07:38		15:32 (2)	06:47		05:49	05:45			05:01	04:51	
	16:41	28	16:00 (2)	17:33		18:17	20:05			20:47	21:07	
27	07:37		15:32 (2)	06:45		05:47	05:43			05:00	04:51	
	16:43	27	15:59 (2)	17:35		18:19	20:06			20:48	21:07	
28	07:35		15:34 (2)	06:43		05:44	17:44 (3)	05:41		04:59	04:52	
	16:44	24	15:58 (2)	17:36		18:20	17:46 (3)	20:08		20:49	21:07	
29	07:34		15:35 (2)			06:42	18:42 (3)	05:40		04:58	04:52	
	16:46	23	15:58 (2)			19:22	18:48 (3)	20:10		20:51	21:07	
30	07:33		15:36 (2)			06:40	18:40 (3)	05:38		04:57	04:53	
	16:48	20	15:56 (2)			19:24	18:50 (3)	20:11		20:52	21:07	
31	07:31		15:39 (2)			06:38	18:38 (3)			04:56		
	16:49	17	15:56 (2)			19:25	18:50 (3)			20:53		
Potential sun hours	269		283			368		411		475		486
Total, worst case	592		18			30		437				
Sun reduction	0,25		0,34			0,36		0,42				
Oper. time red.	1,00		1,00			1,00		1,00				
Wind dir. red.	1,00		1,00			1,00		1,00				
Total reduction	0,25		0,34			0,36		0,42				
Total, real	151		6			11		183				

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

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

SHADOW - Calendar

Shadow receptor: D - RB4

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December
1	04:53 21:07	05:26 20:39	06:11 19:42	18:34 (3) 19:06 (3)	06:55 18:37	06:44 16:36
2	04:54 21:07	05:28 20:37	06:12 19:40	18:32 (3) 19:06 (3)	06:56 18:35	06:45 16:35
3	04:55 21:06	05:29 20:36	06:14 19:38	18:31 (3) 19:03 (3)	06:58 18:33	06:47 16:33
4	04:55 21:06	05:30 20:34	06:15 19:36	18:31 (3) 19:01 (3)	06:59 18:31	06:48 16:31
5	04:56 21:06	05:32 20:33	06:17 19:33	18:30 (3) 18:59 (3)	07:01 18:29	06:50 16:30
6	04:57 21:05	05:33 20:31	06:18 19:31	18:30 (3) 18:57 (3)	07:02 18:27	06:52 16:28
7	04:58 21:05	05:35 20:29	06:20 19:29	18:30 (3) 18:54 (3)	07:04 18:25	06:53 16:27
8	04:58 21:04	05:36 20:28	06:21 19:27	18:29 (3) 18:52 (3)	07:06 18:22	06:55 16:25
9	04:59 21:04	05:37 20:26	06:23 19:25	18:30 (3) 18:50 (3)	07:07 18:20	06:57 16:24
10	05:00 21:03	05:39 20:24	06:24 19:23	18:29 (3) 18:47 (3)	07:09 18:18	06:58 16:22
11	05:01 21:02	05:40 20:23	06:25 19:21	18:30 (3) 18:46 (3)	07:10 18:16	07:00 16:21
12	05:02 21:02	05:42 20:21	06:27 19:18	18:30 (3) 18:43 (3)	07:12 18:14	07:01 16:19
13	05:03 21:01	05:43 20:19	06:28 19:16	18:31 (3) 18:40 (3)	07:13 18:12	07:03 16:18
14	05:04 21:00	05:45 20:17	06:30 19:14	18:32 (3) 18:38 (3)	07:15 18:10	07:05 16:17
15	05:05 20:59	05:46 20:15	06:31 19:12	18:33 (3) 18:36 (3)	07:16 18:08	07:06 16:15
16	05:06 20:58	05:48 20:14	06:33 19:10		07:18 18:06	07:08 16:14
17	05:07 20:57	05:49 20:12	06:34 19:08		07:19 18:04	07:09 16:13
18	05:09 20:56	05:50 20:10	06:36 19:05		07:21 18:02	07:11 16:12
19	05:10 20:55	05:52 20:08	06:37 19:03		07:23 18:00	07:13 16:11
20	05:11 20:54	05:53 20:06	06:39 19:01		07:24 17:58	07:14 16:09
21	05:12 20:53	05:55 20:04	06:40 18:59		07:26 17:56	07:16 16:08
22	05:13 20:52	05:56 20:02	06:42 18:57		07:27 17:54	07:17 16:07
23	05:14 20:51	05:58 20:00	06:43 18:55		07:29 17:52	07:19 16:06
24	05:16 20:50	05:59 19:58	06:44 18:52		07:31 17:51	07:20 16:06
25	05:17 20:48	06:01 19:56	06:46 18:48 (3)		07:32 17:51	07:22 16:06
26	05:18 20:47	06:02 19:54	06:47 18:43 (3)		07:34 17:50	07:23 16:05
27	05:20 20:46	06:04 19:52	06:49 18:41 (3)		07:35 17:49	07:25 16:04
28	05:21 20:44	06:05 19:50	06:50 18:39 (3)		07:37 17:47	07:26 16:03
29	05:22 20:43	06:06 19:48	06:52 18:37 (3)		07:39 17:45	07:27 16:02
30	05:24 20:42	06:08 19:46	06:53 18:36 (3)		07:40 17:43	07:29 16:01
31	05:25 20:40	06:09 19:44	06:54 18:34 (3)		07:42 17:41	07:31 16:00
Potential sun hours	490	447	379	335	275	256
Total, worst case		155	316		500	154
Sun reduction		0,55	0,44		0,21	0,24
Oper. time red.		1,00	1,00		1,00	1,00
Wind dir. red.		1,00	1,00		1,00	1,00
Total reduction		0,55	0,44		0,21	0,24
Total, real		85	139		106	36

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

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

SHADOW - Calendar

Shadow receptor: E - RB5

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June
1	07:53 16:07	07:30 16:51	15:49 (2) 16:11 (2)	06:41 17:38	06:36 19:27	18:51 (3) 20:13
2	07:53 16:08	07:29 16:53	15:50 (2) 16:13 (2)	06:39 17:39	06:34 19:28	18:55 (3) 20:14
3	07:53 16:09	07:27 16:54	15:51 (2) 16:15 (2)	06:37 17:41	06:32 19:30	18:47 (3) 20:16
4	07:53 16:10	07:26 16:56	15:52 (2) 16:18 (2)	06:35 17:43	06:29 19:31	18:46 (3) 20:17
5	07:53 16:11	07:24 16:58	15:52 (2) 16:17 (2)	06:33 17:44	06:27 19:33	18:45 (3) 20:19
6	07:52 16:12	07:23 16:59	15:54 (2) 16:17 (2)	06:31 17:46	06:25 19:34	18:44 (3) 20:20
7	07:52 16:13	07:21 17:01	15:55 (2) 16:16 (2)	06:29 17:48	06:23 19:36	18:43 (3) 20:21
8	07:52 16:15	07:20 17:03	15:56 (2) 16:14 (2)	06:27 17:49	06:21 19:37	18:43 (3) 20:23
9	07:51 16:16	07:18 17:04	15:59 (2) 16:13 (2)	06:25 17:51	06:19 19:39	18:42 (3) 20:24
10	07:51 16:17	07:16 17:06	16:02 (2) 16:09 (2)	06:23 17:52	06:17 19:40	18:41 (3) 20:26
11	07:50 16:18	07:15 17:08	06:21 17:54	06:15 19:42	18:41 (3) 19:10 (3)	05:20 20:27
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	18:41 (3) 19:12 (3)	05:18 20:29
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	18:42 (3) 19:12 (3)	05:17 20:30
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	18:42 (3) 19:11 (3)	05:15 20:32
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	18:43 (3) 19:10 (3)	05:14 20:33
16	07:47 16:25	07:06 17:16	06:10 18:02	06:05 19:50	18:43 (3) 19:08 (3)	05:12 20:34
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	18:44 (3) 19:07 (3)	05:11 20:36
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	18:46 (3) 19:05 (3)	05:10 20:37
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	18:49 (3) 19:03 (3)	05:09 20:38
20	07:44 16:31	06:59 17:23	06:02 18:08	05:57 19:56	18:52 (3) 19:00 (3)	05:07 20:40
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:49 21:07
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43	04:50 21:07
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 21:07
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:07
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:06	05:00 20:48	04:51 21:07
28	07:35 16:44	06:43 17:36	05:44 18:20	05:41 20:08	04:59 20:49	04:52 21:07
29	07:34 16:46	06:42 17:36	05:42 19:22	05:40 20:10	04:58 20:51	04:52 21:07
30	07:33 16:48	06:40 17:37	05:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07
31	07:31 16:49	06:38 17:38	06:38 19:25	06:38 19:25	04:56 20:53	04:56 21:07
Potential sun hours	269	283	368	411	475	486
Total, worst case	118	203		402		
Sun reduction	0,25	0,34		0,42		
Oper. time red.	1,00	1,00		1,00		
Wind dir. red.	1,00	1,00		1,00		
Total reduction	0,25	0,34		0,42		
Total, real	30	70		169		

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

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

SHADOW - Calendar

Shadow receptor: E - RB5

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December		
1	04:53 21:07	05:26 20:39	06:11 19:42	18:41 (3) 19:10 (3)	06:55 18:37	06:44 16:36	15:31 (2) 15:39 (2)	07:30 16:00
2	04:54 21:07	05:28 20:37	06:12 19:40	18:40 (3) 19:07 (3)	06:56 18:35	06:45 16:35	15:27 (2) 15:42 (2)	07:31 16:00
3	04:55 21:06	05:29 20:36	06:14 19:38	18:40 (3) 19:05 (3)	06:58 18:33	06:47 16:33	15:25 (2) 15:44 (2)	07:33 15:59
4	04:55 21:06	05:30 20:34	06:15 19:36	18:40 (3) 19:03 (3)	06:59 18:31	06:48 16:31	15:24 (2) 15:45 (2)	07:34 15:59
5	04:56 21:06	05:32 20:33	06:17 19:33	18:40 (3) 19:01 (3)	07:01 18:29	06:50 16:30	15:23 (2) 15:47 (2)	07:35 15:58
6	04:57 21:05	05:33 20:31	06:18 19:31	18:40 (3) 18:59 (3)	07:02 18:27	06:52 16:28	15:22 (2) 15:47 (2)	07:36 15:58
7	04:58 21:05	05:35 20:29	06:20 19:29	18:40 (3) 18:56 (3)	07:04 18:25	06:53 16:27	15:22 (2) 15:47 (2)	07:38 15:58
8	04:58 21:04	05:36 20:28	06:21 19:27	18:40 (3) 18:54 (3)	07:05 18:22	06:55 16:25	15:21 (2) 15:46 (2)	07:39 15:57
9	04:59 21:04	05:37 20:26	06:23 19:25	18:41 (3) 18:52 (3)	07:07 18:20	06:57 16:24	15:21 (2) 15:44 (2)	07:40 15:57
10	05:00 21:03	05:39 20:24	06:24 19:23	18:42 (3) 18:50 (3)	07:09 18:18	06:58 16:22	15:20 (2) 15:42 (2)	07:41 15:57
11	05:01 21:02	05:40 20:23	06:25 19:21	18:44 (3) 18:48 (3)	07:10 18:16	07:00 16:21	15:20 (2) 15:40 (2)	07:42 15:57
12	05:02 21:01	05:42 20:21	06:27 19:18		07:12 18:14	07:01 16:19	15:21 (2) 15:39 (2)	07:43 15:57
13	05:03 21:01	05:43 20:19	06:28 19:16		07:13 18:12	07:03 16:18	15:21 (2) 15:38 (2)	07:44 15:57
14	05:04 21:00	05:45 20:17	06:30 19:14		07:15 18:10	07:05 16:17	15:21 (2) 15:35 (2)	07:45 15:57
15	05:05 20:59	05:46 20:15	06:31 19:12		07:16 18:08	07:06 16:15	15:21 (2) 15:34 (2)	07:46 15:57
16	05:06 20:58	05:48 20:14	06:33 19:10		07:18 18:06	07:08 16:14	15:22 (2) 15:33 (2)	07:46 15:57
17	05:07 20:57	05:49 20:12	06:34 19:08		07:19 18:04	07:09 16:13	15:23 (2) 15:32 (2)	07:47 15:57
18	05:09 20:56	05:50 20:10	06:36 19:05		07:21 18:02	07:11 16:12	15:23 (2) 15:30 (2)	07:48 15:58
19	05:10 20:55	05:52 20:08	06:37 19:03		07:23 18:00	07:13 16:11	15:24 (2) 15:29 (2)	07:49 15:58
20	05:11 20:54	05:53 20:06	06:39 19:01		07:24 17:58	07:14 16:09	15:25 (2) 15:28 (2)	07:49 15:58
21	05:12 20:53	05:55 20:04	06:40 18:59		07:26 17:56	07:16 16:08	15:25 (2) 15:26 (2)	07:50 15:59
22	05:13 20:52	05:56 20:02	06:42 18:57		07:27 17:54	07:17 16:07	15:26 (2) 15:29 (2)	07:50 15:59
23	05:14 20:51	05:58 20:00	18:55 (3) 19:04 (3)	06:43 18:55	07:29 17:52	07:19 16:06	15:31 (1) 16:00	14:53 (1) 15:05 (1)
24	05:16 20:50	05:59 19:58	18:51 (3) 19:07 (3)	06:44 18:52	07:31 17:51	07:20 16:06	16:01 16:00	15:06 (1) 15:06 (1)
25	05:17 20:48	06:01 19:56	18:49 (3) 19:09 (3)	06:46 18:50	06:32 16:49	07:22 16:05	16:02 16:01	15:07 (1) 15:05 (1)
26	05:18 20:47	06:02 19:54	18:47 (3) 19:10 (3)	06:47 18:48	06:34 16:47	07:23 16:04	16:03 16:02	15:06 (1) 15:05 (1)
27	05:20 20:46	06:04 19:52	18:46 (3) 19:11 (3)	06:49 18:46	06:35 16:45	07:25 16:03	16:04 16:02	15:04 (1) 15:06 (1)
28	05:21 20:44	06:05 19:50	18:44 (3) 19:12 (3)	06:50 18:44	06:37 16:43	07:26 16:02	16:05 16:03	15:03 (1) 15:06 (1)
29	05:22 20:43	06:06 19:48	18:43 (3) 19:12 (3)	06:52 18:42	06:39 16:41	07:27 16:02	16:06 16:04	15:02 (1) 15:06 (1)
30	05:24 20:42	06:08 19:46	18:43 (3) 19:13 (3)	06:53 18:39	06:40 16:40	07:29 16:01	16:07 16:05	15:00 (1) 15:05 (1)
31	05:25 20:40	06:09 19:44	18:41 (3) 19:12 (3)		06:42 16:38		16:08 16:06	15:02 (1) 15:04 (1)
Potential sun hours	490	447	379	335	275		256	
Total, worst case		211		197		325		174
Sun reduction		0,55		0,44		0,21		0,24
Oper. time red.		1,00		1,00		1,00		1,00
Wind dir. red.		1,00		1,00		1,00		1,00
Total reduction		0,55		0,44		0,21		0,24
Total, real		115		87		69		41

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

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

SHADOW - Calendar

Shadow receptor: F - RB6

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

January		February		March		April	May	June
1	07:53	15:06 (1)	07:30	16:07 (2)	06:41	06:36	05:36	04:55
	16:07	17	15:23 (1)	16:51	2	16:09 (2)	17:38	19:27
2	07:53	15:06 (1)	07:29	16:07 (2)	06:39	06:34	20:13	20:54
	16:08	17	15:23 (1)	16:53	4	16:11 (2)	17:39	19:28
3	07:53	15:07 (1)	07:27	16:06 (2)	06:37	06:32	20:14	20:55
	16:09	17	15:24 (1)	16:54	7	16:13 (2)	17:41	19:30
4	07:53	15:08 (1)	07:26	16:06 (2)	06:35	06:29	20:16	20:56
	16:10	18	15:26 (1)	16:56	9	16:15 (2)	17:43	19:31
5	07:53	15:09 (1)	07:24	16:06 (2)	06:33	06:27	05:31	04:53
	16:11	18	15:27 (1)	16:58	10	16:16 (2)	17:44	19:33
6	07:52	15:09 (1)	07:23	16:06 (2)	06:31	06:25	20:19	20:58
	16:12	19	15:28 (1)	16:59	12	16:18 (2)	17:46	19:34
7	07:52	15:10 (1)	07:21	16:06 (2)	06:29	06:23	2	19:01 (3)
	16:13	20	15:30 (1)	17:01	14	16:20 (2)	17:48	19:36
8	07:52	15:10 (1)	07:20	16:06 (2)	06:27	06:21	7	19:03 (3)
	16:15	19	15:29 (1)	17:03	15	16:21 (2)	17:49	19:37
9	07:51	15:12 (1)	07:18	16:06 (2)	06:25	06:19	9	19:06 (3)
	16:16	18	15:30 (1)	17:04	18	16:24 (2)	17:51	19:39
10	07:51	15:12 (1)	07:16	16:06 (2)	06:23	06:17	12	19:07 (3)
	16:17	17	15:29 (1)	17:06	19	16:25 (2)	17:52	19:40
11	07:50	15:14 (1)	07:15	16:07 (2)	06:21	06:15	15	19:08 (3)
	16:18	16	15:30 (1)	17:08	20	16:27 (2)	17:54	19:42
12	07:50	15:15 (1)	07:13	16:07 (2)	06:19	06:13	17	19:10 (3)
	16:20	14	15:29 (1)	17:10	21	16:28 (2)	17:56	19:44
13	07:49	15:16 (1)	07:11	16:09 (2)	06:17	06:11	19	19:11 (3)
	16:21	12	15:28 (1)	17:11	22	16:31 (2)	17:57	19:45
14	07:49	15:18 (1)	07:10	16:09 (2)	06:14	06:09	22	19:13 (3)
	16:23	8	15:26 (1)	17:13	23	16:32 (2)	17:59	19:47
15	07:48		07:08	16:11 (2)	06:12	06:07	23	19:14 (3)
	16:24		17:15	19	16:30 (2)	18:00	25	19:16 (3)
16	07:47		07:06	16:12 (2)	06:10	06:05	26	19:17 (3)
	16:25		17:16	16	16:28 (2)	18:02	28	19:19 (3)
17	07:47		07:04	16:15 (2)	06:08	06:03	28	19:19 (3)
	16:27		17:18	11	16:26 (2)	18:03	28	19:19 (3)
18	07:46		07:02		06:06	06:01	28	19:19 (3)
	16:28		17:20		18:05	19:53	28	19:19 (3)
19	07:45		07:01		06:04	05:59	28	19:19 (3)
	16:30		17:21		18:07	19:54	27	19:19 (3)
20	07:44		06:59		06:02	05:57	27	19:19 (3)
	16:31		17:23		18:08	19:56	25	19:18 (3)
21	07:43		06:57		05:59	05:55	25	19:18 (3)
	16:33		17:25		18:10	19:57	23	19:16 (3)
22	07:42		06:55		05:57	05:53	23	19:16 (3)
	16:35		17:26		18:11	19:59	21	19:15 (3)
23	07:41		06:53		05:55	05:51	21	19:15 (3)
	16:36		17:28		18:13	20:00	17	19:13 (3)
24	07:40		06:51		05:53	05:49	17	19:13 (3)
	16:38		17:30		18:14	20:02	12	19:10 (3)
25	07:39		06:49		05:51	05:47	12	19:10 (3)
	16:39		17:31		18:16	20:03	1	19:04 (3)
26	07:38		06:47		05:49	05:45	1	19:04 (3)
	16:41		17:33		18:17	20:05		05:01
27	07:37		06:45		05:47	05:43		20:47
	16:43		17:35		18:19	20:06		05:00
28	07:35		06:43		05:44	05:41		20:48
	16:44		17:36		18:20	20:08		20:49
29	07:34				06:42	05:40		04:59
	16:46				19:22	20:09		20:51
30	07:33				06:40	05:38		20:57
	16:48				19:24	20:11		20:52
31	07:31				06:38			04:56
	16:49				19:25			20:53
Potential sun hours	269		283		368	411		475
Total, worst case	230		242			359		486
Sun reduction	0,25		0,34			0,42		
Oper. time red.	1,00		1,00			1,00		
Wind dir. red.	1,00		1,00			1,00		
Total reduction	0,25		0,34			0,42		
Total, real	59		83			151		

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

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

SHADOW - Calendar

Shadow receptor: F - RB6

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December			
1	04:53 21:07	05:26 20:39	06:11 19:42	18:53 (3) 19:10 (3)	06:55 18:37	06:44 16:36	15:36 (2) 15:55 (2)	07:30 16:00	14:56 (1) 15:12 (1)
2	04:54 21:07	05:28 20:37	06:12 19:40	18:52 (3) 19:07 (3)	06:56 18:35	06:45 16:35	15:35 (2) 15:52 (2)	07:31 16:00	14:55 (1) 15:12 (1)
3	04:55 21:06	05:29 20:36	06:14 19:38	18:53 (3) 19:05 (3)	06:58 18:33	06:47 16:33	15:35 (2) 15:51 (2)	07:33 15:59	14:55 (1) 15:13 (1)
4	04:55 21:06	05:30 20:34	06:15 19:36	18:54 (3) 19:03 (3)	06:59 18:31	06:48 16:31	15:36 (2) 15:49 (2)	07:34 15:59	14:55 (1) 15:14 (1)
5	04:56 21:06	05:32 20:33	06:17 19:33	18:54 (3) 19:01 (3)	07:01 18:29	06:50 16:30	15:36 (2) 15:48 (2)	07:35 15:58	14:55 (1) 15:15 (1)
6	04:57 21:05	05:33 20:31	06:18 19:31	18:57 (3) 18:59 (3)	07:02 18:27	06:52 16:28	15:35 (2) 15:46 (2)	07:36 15:58	14:55 (1) 15:14 (1)
7	04:58 21:05	05:35 20:29	06:20 19:29		07:04 18:25	06:53 16:27	15:36 (2) 15:44 (2)	07:38 15:58	14:55 (1) 15:14 (1)
8	04:58 21:04	05:36 20:28	06:21 19:27		07:05 18:22	06:55 16:25	15:37 (2) 15:43 (2)	07:39 15:57	14:56 (1) 15:14 (1)
9	04:59 21:04	05:37 20:26	06:23 19:25		07:07 18:20	06:57 16:24	15:38 (2) 15:42 (2)	07:40 15:57	14:56 (1) 15:14 (1)
10	05:00 21:03	05:39 20:24	06:24 19:23		07:09 18:18	06:58 16:22	15:38 (2) 15:40 (2)	07:41 15:57	14:56 (1) 15:13 (1)
11	05:01 21:02	05:40 20:23	06:25 19:21		07:10 18:16	07:00 16:21		07:42 15:57	14:56 (1) 15:13 (1)
12	05:02 21:01	05:42 20:21	06:27 19:18		07:12 18:14	07:01 16:19		07:43 15:57	14:56 (1) 15:13 (1)
13	05:03 21:01	05:43 20:19	06:28 19:16		07:13 18:12	07:03 16:18		07:44 15:57	14:57 (1) 15:13 (1)
14	05:04 21:00	05:45 20:17	06:30 19:14		07:15 18:10	07:05 16:17		07:45 15:57	14:57 (1) 15:13 (1)
15	05:05 20:59	05:46 20:15	06:31 19:12		07:16 18:08	07:06 16:15		07:46 15:57	14:58 (1) 15:13 (1)
16	05:06 20:58	05:48 20:14	06:33 19:10		07:18 18:06	07:08 16:14		07:46 15:57	14:57 (1) 15:12 (1)
17	05:07 20:57	05:49 20:12	06:34 19:08		07:19 18:04	07:09 16:13		07:47 15:57	14:58 (1) 15:13 (1)
18	05:09 20:56	05:50 20:10	19:07 (3) 19:13 (3)	06:36 19:05	07:21 18:02	07:11 16:12		07:48 15:58	14:59 (1) 15:13 (1)
19	05:10 20:55	05:52 20:08	19:03 (3) 19:16 (3)	06:37 19:03	07:23 18:00	07:13 16:11		07:49 15:58	14:59 (1) 15:13 (1)
20	05:11 20:54	05:53 20:06	19:01 (3) 19:19 (3)	06:39 19:01	07:24 17:58	07:14 16:09		07:49 15:58	14:59 (1) 15:13 (1)
21	05:12 20:53	05:55 20:04	18:59 (3) 19:20 (3)	06:40 18:59	07:26 17:56	07:16 16:08		07:50 15:59	15:00 (1) 15:14 (1)
22	05:13 20:52	05:56 20:02	18:58 (3) 19:21 (3)	06:42 18:57	07:27 17:54	07:17 16:07		07:50 15:59	15:00 (1) 15:14 (1)
23	05:14 20:51	05:58 20:00	18:56 (3) 19:22 (3)	06:43 18:55	07:29 17:52	07:19 16:06		07:51 16:00	15:00 (1) 15:14 (1)
24	05:16 20:50	05:59 19:58	18:55 (3) 19:22 (3)	06:44 18:52	07:31 17:51	07:20 16:06	16:49 (2) 16:52 (2)	07:51 16:00	15:02 (1) 15:16 (1)
25	05:17 20:48	06:01 19:56	18:55 (3) 19:23 (3)	06:46 18:50	07:32 16:49	07:22 15:43 (2)	16:56 (2) 15:56 (2)	07:52 16:01	15:02 (1) 15:16 (1)
26	05:18 20:47	06:02 19:54	18:53 (3) 19:21 (3)	06:47 18:48	07:34 16:47	07:23 15:58 (2)	16:57 (2) 15:58 (2)	07:52 16:02	15:02 (1) 15:16 (1)
27	05:20 20:46	06:04 19:52	18:53 (3) 19:20 (3)	06:49 18:46	07:35 16:45	07:25 16:00 (2)	16:05 16:03	07:52 16:02	15:03 (1) 15:18 (1)
28	05:21 20:44	06:05 19:50	18:53 (3) 19:17 (3)	06:50 18:44	07:37 16:43	07:26 16:01 (2)	14:58 (1) 15:06 (1)	07:53 16:03	15:04 (1) 15:19 (1)
29	05:22 20:43	06:06 19:48	18:52 (3) 19:15 (3)	06:52 18:42	07:39 16:41	07:27 15:59 (2)	14:57 (1) 16:02	07:53 16:04	15:04 (1) 15:19 (1)
30	05:24 20:42	06:08 19:46	18:52 (3) 19:14 (3)	06:53 18:39	07:40 16:40	07:29 15:57 (2)	14:56 (1) 15:10 (1)	07:53 16:05	15:05 (1) 15:20 (1)
31	05:25 20:40	06:09 19:44	18:52 (3) 19:11 (3)		06:42 16:38	15:36 (2) 15:56 (2)		07:53 16:06	15:05 (1) 15:21 (1)
Potential sun hours	490	447	379	335	275	256			
Total, worst case		305	62	137	142	494			
Sun reduction		0,55	0,44	0,41	0,21	0,24			
Oper. time red.		1,00	1,00	1,00	1,00	1,00			
Wind dir. red.		1,00	1,00	1,00	1,00	1,00			
Total reduction		0,55	0,44	0,41	0,21	0,24			
Total, real		167	27	57	30	116			

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

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

SHADOW - Calendar

Shadow receptor: G - RB7

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January		February		March		April		May		June	
1	07:53		07:30	15:54 (1)	06:41	16:40 (2)	06:36		05:36		19:15 (3)	04:55
	16:07		16:51	15:58 (1)	17:38	17:00 (2)	19:27		20:13	22	19:37 (3)	20:54
2	07:53		07:29		06:39	16:41 (2)	06:34		05:34		19:15 (3)	04:55
	16:08		16:53		17:39	16:58 (2)	19:28		20:14	20	19:35 (3)	20:55
3	07:53		07:27		06:37	16:43 (2)	06:32		05:33		19:17 (3)	04:54
	16:09		16:54		17:41	16:56 (2)	19:30		20:16	18	19:35 (3)	20:56
4	07:53		07:26		06:35	16:48 (2)	06:29		05:31		19:18 (3)	04:53
	16:10		16:56		17:43	16:51 (2)	19:31		20:17	15	19:33 (3)	20:57
5	07:53		07:24		06:33		06:27		05:29		19:20 (3)	04:53
	16:11		16:58		17:44		19:33		20:18	10	19:30 (3)	20:58
6	07:52		07:23		06:31		06:25		05:28			04:52
	16:12		16:59		17:46		19:34		20:20			20:58
7	07:52		07:21		06:29		06:23		05:26			04:52
	16:13		17:01		17:48		19:36		20:21			20:59
8	07:52		07:20		06:27		06:21		05:24			04:51
	16:15		17:03		17:49		19:37		20:23			21:00
9	07:51		07:18		06:25		06:19		05:23			04:51
	16:16		17:04		17:51		19:39		20:24			21:01
10	07:51		07:16		06:23		06:17		05:21			04:50
	16:17		17:06		17:52		19:40		20:26			21:02
11	07:50		07:15		06:21		06:15		05:20			04:50
	16:18		17:08		17:54		19:42		20:27			21:02
12	07:50		07:13		06:19		06:13		05:18			04:50
	16:20		17:09		17:56		19:44		20:29			21:03
13	07:49		07:11		06:17		06:11		05:17			04:50
	16:21		17:11		17:57		19:45		20:30			21:04
14	07:49		07:10		06:14		06:09		05:15			04:49
	16:23		17:13		17:59		19:47		20:32			21:04
15	07:48		07:08		06:12		06:07		05:14			04:49
	16:24		17:15		18:00		19:48		20:33			21:05
16	07:47		07:06		06:10		06:05		05:12			04:49
	16:25		17:16		18:02		19:50		20:34			21:05
17	07:47		07:04		06:08		06:03	19:21 (3)	05:11			04:49
	16:27		17:18		18:03		19:51	4	19:25 (3)	20:36		21:06
18	07:46		07:02	16:40 (2)	06:06		06:01	19:19 (3)	05:10			04:49
	16:28		17:20	16:41 (2)	18:05		19:53	7	19:26 (3)	20:37		21:06
19	07:45	15:41 (1)	07:01	16:39 (2)	06:04		05:59	19:18 (3)	05:09			04:49
	16:30	1	15:42 (1)	17:21	4	16:43 (2)	18:07	19:54	11	19:29 (3)	20:38	21:06
20	07:44	15:42 (1)	06:59	16:38 (2)	06:02		05:57	19:17 (3)	05:07			04:49
	16:31	2	15:44 (1)	17:23	7	16:45 (2)	18:08	19:56	13	19:30 (3)	20:40	21:07
21	07:43	15:42 (1)	06:57	16:38 (2)	05:59		05:55	19:16 (3)	05:06			04:49
	16:33	4	15:46 (1)	17:25	9	16:47 (2)	18:10	19:57	16	19:32 (3)	20:41	21:07
22	07:42	15:42 (1)	06:55	16:38 (2)	05:57		05:53	19:15 (3)	05:05			04:50
	16:35	6	15:48 (1)	17:26	12	16:50 (2)	18:11	19:59	18	19:33 (3)	20:42	21:07
23	07:41	15:42 (1)	06:53	16:38 (2)	05:55		05:51	19:14 (3)	05:04			04:50
	16:36	7	15:49 (1)	17:28	14	16:52 (2)	18:13	20:00	20	19:34 (3)	20:43	21:07
24	07:40	15:43 (1)	06:51	16:38 (2)	05:53		05:49	19:13 (3)	05:03			04:50
	16:38	8	15:51 (1)	17:30	16	16:54 (2)	18:14	20:02	23	19:36 (3)	20:45	21:07
25	07:39	15:43 (1)	06:49	16:38 (2)	05:51		05:47	19:13 (3)	05:02			04:51
	16:39	10	15:53 (1)	17:31	18	16:56 (2)	18:16	20:03	24	19:37 (3)	20:46	21:07
26	07:38	15:44 (1)	06:47	16:38 (2)	05:49		05:45	19:13 (3)	05:01			04:51
	16:41	11	15:55 (1)	17:33	20	16:58 (2)	18:17	20:05	26	19:39 (3)	20:47	21:07
27	07:36	15:45 (1)	06:45	16:39 (2)	05:47		05:43	19:13 (3)	05:00			04:51
	16:43	11	15:56 (1)	17:35	21	17:00 (2)	18:19	20:06	27	19:40 (3)	20:48	21:07
28	07:35	15:46 (1)	06:43	16:40 (2)	05:44		05:41	19:13 (3)	04:59			04:52
	16:44	12	15:58 (1)	17:36	22	17:02 (2)	18:20	20:08	26	19:39 (3)	20:49	21:07
29	07:34	15:47 (1)			06:42		05:40	19:13 (3)	04:58			04:52
	16:46	14	16:01 (1)		19:22		20:09	25	19:38 (3)	20:51		21:07
30	07:33	15:48 (1)			06:40		05:38	19:14 (3)	04:57			04:53
	16:48	14	16:02 (1)		19:24		20:11	24	19:38 (3)	20:52		21:07
31	07:31	15:51 (1)			06:38				04:56			
	16:49	11	16:02 (1)		19:25				20:53			
Potential sun hours	269		283		368		411		475		486	
Total, worst case	111		148		53		264		85			
Sun reduction	0,25		0,34		0,36		0,42		0,51			
Oper. time red.	1,00		1,00		1,00		1,00		1,00			
Wind dir. red.	1,00		1,00		1,00		1,00		1,00			
Total reduction	0,25		0,34		0,36		0,42		0,51			
Total, real	28		51		19		111		43			

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

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

SHADOW - Calendar

Shadow receptor: G - RB7

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December
1	04:53 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	04:54 21:07	05:28 20:37	06:12 19:40	06:56 18:35	06:45 16:35	07:31 16:00
3	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	04:55 21:06	05:30 20:34	06:15 19:36	06:59 18:31	06:48 16:31	07:34 15:59
5	04:56 21:06	05:32 20:33	06:17 19:33	07:01 18:29	06:50 16:30	07:35 15:58
6	04:57 21:05	05:33 20:31	06:18 19:31	07:02 18:27	06:52 16:28	07:36 15:58
7	04:58 21:05	05:35 20:29	19:32 (3) 19:38 (3)	06:20 19:29	07:04 18:25	06:53 15:58
8	04:58 21:04	05:36 20:28	19:28 (3) 19:40 (3)	06:21 19:27	07:05 18:22	06:55 15:57
9	04:59 21:03	05:37 20:26	19:27 (3) 19:43 (3)	06:23 19:25	07:07 18:20	06:57 15:57
10	05:00 21:03	05:39 20:24	19:25 (3) 19:44 (3)	06:24 19:23	07:09 18:18	06:58 15:57
11	05:01 21:02	05:40 20:23	19:23 (3) 19:44 (3)	06:25 19:21	07:10 18:16	07:00 15:57
12	05:02 21:01	05:42 20:21	19:23 (3) 19:46 (3)	06:27 19:18	07:12 18:14	07:01 15:57
13	05:03 21:01	05:43 20:19	19:22 (3) 19:46 (3)	06:28 19:16	07:13 18:12	07:03 15:57
14	05:04 21:00	05:45 20:17	19:22 (3) 19:47 (3)	06:30 19:14	07:15 18:10	07:05 15:57
15	05:05 20:59	05:46 20:15	19:21 (3) 19:47 (3)	06:31 19:12	07:16 18:08	07:06 15:57
16	05:06 20:58	05:48 20:14	19:20 (3) 19:46 (3)	06:33 19:10	07:18 18:06	07:08 15:57
17	05:07 20:57	05:49 20:12	19:20 (3) 19:45 (3)	06:34 19:08	07:19 18:04	07:09 15:57
18	05:09 20:56	05:50 20:10	19:19 (3) 19:43 (3)	06:36 19:05	07:21 18:02	07:11 15:57
19	05:10 20:55	05:52 20:08	19:19 (3) 19:41 (3)	06:37 19:03	07:23 18:00	07:13 15:58
20	05:11 20:54	05:53 20:06	19:20 (3) 19:40 (3)	06:39 19:01	07:24 17:58	07:14 15:58
21	05:12 20:53	05:55 20:04	19:19 (3) 19:37 (3)	06:40 18:59	07:26 17:56	07:16 15:59
22	05:13 20:52	05:56 20:02	19:20 (3) 19:36 (3)	06:42 18:57	07:27 17:54	07:17 15:59
23	05:14 20:51	05:58 20:00	19:21 (3) 19:34 (3)	06:43 18:55	07:29 17:52	07:19 16:00
24	05:16 20:50	05:59 19:58	19:21 (3) 19:32 (3)	06:44 18:52	07:31 17:51	07:20 16:00
25	05:17 20:48	06:01 19:56	19:23 (3) 19:30 (3)	06:46 18:50	07:22 16:49	07:22 16:01
26	05:18 20:47	06:02 19:54	19:24 (3) 19:28 (3)	06:47 18:48	07:23 16:47	07:23 16:02
27	05:20 20:46	06:04 19:52	06:49 18:46	06:35 16:45	07:25 16:03	07:25 16:02
28	05:21 20:44	06:05 19:50	06:50 18:44	06:37 16:43	07:26 16:02	07:26 16:03
29	05:22 20:43	06:06 19:48	06:52 18:42	06:39 16:41	07:27 16:02	07:27 16:04
30	05:24 20:42	06:08 19:46	06:53 18:39	06:40 16:40	07:29 16:01	07:29 16:05
31	05:25 20:40	06:09 19:44	06:42 16:38	06:42 16:38	07:30 16:06	07:30 16:06
Potential sun hours	490	447	379	335	275	256
Total, worst case		358		205	116	
Sun reduction		0,55		0,41	0,21	
Oper. time red.		1,00		1,00	1,00	
Wind dir. red.		1,00		1,00	1,00	
Total reduction		0,55		0,41	0,21	
Total, real		196		85	25	

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

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

SHADOW - Calendar

Shadow receptor: H - RB8

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:55 20:54
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14	04:55 20:55
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56
4	07:53 16:10	07:26 16:56	06:35 17:43	06:29 19:31	05:31 20:17	04:53 20:57
5	07:53 16:11	07:24 16:58	16:02 (1) 16:03 (1)	06:33 19:33	05:29 20:18	04:53 20:58
6	07:52 16:12	07:23 16:59	16:03 (1) 16:06 (1)	06:31 19:34	05:28 20:20	04:52 20:58
7	07:52 16:13	07:21 17:01	16:04 (1) 16:08 (1)	06:29 17:00 (2)	05:26 19:38 (3)	04:52 19:40 (3)
8	07:52 16:15	07:20 17:03	16:05 (1) 16:09 (1)	06:27 17:02 (2)	05:24 19:37	04:51 19:38 (3)
9	07:51 16:16	07:18 17:04	16:07 (1) 16:12 (1)	06:25 17:03 (2)	05:23 19:39	04:51 19:43 (3)
10	07:51 16:17	07:16 17:06	16:08 (1) 16:14 (1)	06:17 17:05 (2)	05:21 19:40	04:50 19:37 (3)
11	07:50 16:18	07:15 17:08	16:11 (1) 16:16 (1)	06:15 17:06 (2)	05:20 19:42	04:50 19:38 (3)
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 17:07 (2)	05:18 19:44	04:50 19:37 (3)
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 17:09 (2)	05:17 19:45	04:50 19:38 (3)
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 17:11 (2)	05:15 19:47	04:49 19:38 (3)
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 17:12 (2)	05:14 19:48	04:49 19:38 (3)
16	07:47 16:25	07:06 17:16	06:10 18:02	06:05 17:14 (2)	05:12 19:50	04:49 19:38 (3)
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 19:39 (3)
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 19:40 (3)
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 20:00 (3)
20	07:44 16:31	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 20:01 (3)
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:50 20:00 (3)
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 19:42 (3)
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43	04:50 19:58 (3)
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 19:45 (3)
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 19:57 (3)
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:07
27	07:36 16:43	06:45 17:35	05:47 18:19	05:43 20:06	05:00 20:48	04:51 21:07
28	07:35 16:44	06:43 17:36	05:44 18:20	05:41 20:08	04:59 20:49	04:52 21:07
29	07:34 16:46		06:42 19:22	05:40 20:09	04:58 20:51	04:52 21:07
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07
31	07:31 16:49		06:38 19:25		04:56 20:53	
Potential sun hours	269	283	368	411	475	486
Total, worst case		28	70		252	
Sun reduction		0,34	0,36		0,51	
Oper. time red.		1,00	1,00		1,00	
Wind dir. red.		1,00	1,00		1,00	
Total reduction		0,34	0,36		0,51	
Total, real		10	25		128	

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

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

Shadow receptor: H - RB8

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July		August		September		October		November		December	
1	04:53		05:26	19:48 (3)	06:11		06:55	17:39 (2)	06:44	15:38 (1)	07:30	
	21:07		20:39	10 19:58 (3)	19:42		18:37	9 17:48 (2)	16:36	5 15:43 (1)	16:00	
2	04:54		05:28	19:47 (3)	06:12		06:56	17:37 (2)	06:45	15:35 (1)	07:31	
	21:07		20:37	9 19:56 (3)	19:40		18:35	8 17:45 (2)	16:35	6 15:41 (1)	16:00	
3	04:55		05:29	19:48 (3)	06:14		06:58	17:37 (2)	06:47	15:34 (1)	07:33	
	21:06		20:36	7 19:55 (3)	19:38		18:33	7 17:44 (2)	16:33	5 15:39 (1)	15:59	
4	04:55		05:30	19:48 (3)	06:15		06:59	17:35 (2)	06:48	15:34 (1)	07:34	
	21:06		20:34	5 19:53 (3)	19:36		18:31	6 17:41 (2)	16:31	3 15:37 (1)	15:59	
5	04:56		05:32	19:48 (3)	06:17		07:01	17:35 (2)	06:50	15:33 (1)	07:35	
	21:06		20:33	3 19:51 (3)	19:33		18:29	4 17:39 (2)	16:30	2 15:35 (1)	15:58	
6	04:57		05:33	19:49 (3)	06:18		07:02	17:34 (2)	06:52	15:32 (1)	07:36	
	21:05		20:31	1 19:50 (3)	19:31		18:27	3 17:37 (2)	16:28	1 15:33 (1)	15:58	
7	04:58		05:35		06:20		07:04	17:34 (2)	06:53		07:38	
	21:05		20:29		19:29		18:25	1 17:35 (2)	16:27		15:58	
8	04:58		05:36		06:21		07:05		06:55		07:39	
	21:04		20:28		19:27		18:22		16:25		15:57	
9	04:59		05:37		06:23		07:07		06:57		07:40	
	21:03		20:26		19:25		18:20		16:24		15:57	
10	05:00		05:39		06:24		07:09		06:58		07:41	
	21:03		20:24		19:23		18:18		16:22		15:57	
11	05:01		05:40		06:25		07:10		07:00		07:42	
	21:02		20:23		19:21		18:16		16:21		15:57	
12	05:02		05:42		06:27		07:12		07:01		07:43	
	21:01		20:21		19:18		18:14		16:19		15:57	
13	05:03		05:43		06:28		07:13		07:03		07:44	
	21:01		20:19		19:16		18:12		16:18		15:57	
14	05:04		05:45		06:30		07:15		07:05		07:45	
	21:00		20:17		19:14		18:10		16:17		15:57	
15	05:05		05:46		06:31		07:16		07:06		07:46	
	20:59		20:15		19:12		18:08		16:15		15:57	
16	05:06		05:48		06:33		07:18		07:08		07:46	
	20:58		20:14		19:10		18:06		16:14		15:57	
17	05:07		05:49		06:34		07:19		07:09		07:47	
	20:57		20:12		19:08		18:04		16:13		15:57	
18	05:09	19:58 (3)	05:50		06:36		07:21		07:11		07:48	
	20:56	5 20:03 (3)	20:10		19:05		18:02		16:12		15:58	
19	05:10	19:55 (3)	05:52		06:37		07:23		07:13		07:49	
	20:55	11 20:06 (3)	20:08		19:03		18:00		16:11		15:58	
20	05:11	19:54 (3)	05:53		06:39		07:24		07:14		07:49	
	20:54	13 20:07 (3)	20:06		19:01		17:58		16:09		15:58	
21	05:12	19:54 (3)	05:55		06:40		07:26		07:16		07:50	
	20:53	15 20:09 (3)	20:04		18:59		17:56		16:08		15:59	
22	05:13	19:52 (3)	05:56		06:42		07:27		07:17		07:50	
	20:52	18 20:10 (3)	20:02		18:57		17:54		16:07		15:59	
23	05:14	19:51 (3)	05:58		06:43		07:29		07:19		07:51	
	20:51	20 20:11 (3)	20:00		18:55		17:52		16:06		16:00	
24	05:16	19:50 (3)	05:59		06:44		07:31		07:20		07:51	
	20:50	21 20:11 (3)	19:58		18:52		17:51		16:06		16:00	
25	05:17	19:50 (3)	06:01		06:46		06:32		07:22		07:52	
	20:48	20 20:10 (3)	19:56		18:50		16:49		16:05		16:01	
26	05:18	19:50 (3)	06:02		06:47		06:34		07:23		07:52	
	20:47	19 20:09 (3)	19:54		18:48		16:47		16:04		16:02	
27	05:20	19:49 (3)	06:04		06:49	17:50 (2)	06:35		07:25		07:52	
	20:46	18 20:07 (3)	19:52		18:46	5 17:55 (2)	16:45		16:03		16:02	
28	05:21	19:49 (3)	06:05		06:50	17:45 (2)	06:37		07:26		07:53	
	20:44	16 20:05 (3)	19:50		18:44	9 17:54 (2)	16:43		16:02		16:03	
29	05:22	19:48 (3)	06:06		06:52	17:42 (2)	06:39		07:27		07:53	
	20:43	15 20:03 (3)	19:48		18:42	10 17:52 (2)	16:41		16:02		16:04	
30	05:24	19:48 (3)	06:08		06:53	17:40 (2)	06:40		07:29		07:53	
	20:42	14 20:02 (3)	19:46		18:39	9 17:49 (2)	16:40		16:01		16:05	
31	05:25	19:48 (3)	06:09				06:42	15:40 (1)			07:53	
	20:40	12 20:00 (3)	19:44				16:38	5 15:45 (1)			16:06	
Potential sun hours	490		447		379		335		275		256	
Total, worst case	217		35		33		43		22			
Sun reduction	0,53		0,55		0,44		0,41		0,21			
Oper. time red.	1,00		1,00		1,00		1,00		1,00			
Wind dir. red.	1,00		1,00		1,00		1,00		1,00			
Total reduction	0,53		0,55		0,44		0,41		0,21			
Total, real	116		19		15		18		5			

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

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

SHADOW - Calendar

Shadow receptor: I - RB9

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June		
1	07:53 16:07	07:30 16:51	06:41 17:38	16:51 (1) 17:05 (1)	06:36 18:42 (2) 18:47 (2)	05:36 20:12 20:54	20:07 (3) 20:13 (3)	
2	07:53 16:08	07:29 16:53	06:39 17:39	16:54 (1) 17:02 (1)	06:34 19:28	05:34 20:14	04:55 20:55	
3	07:53 16:09	07:27 16:54	06:37 17:41		06:32 19:30	05:33 20:15	04:54 20:56	
4	07:53 16:10	07:26 16:56	06:35 17:43		06:29 19:31	05:31 20:17	04:53 20:57	
5	07:53 16:11	07:24 16:58	06:33 17:44		06:27 19:33	05:29 20:18	04:53 20:58	
6	07:52 16:12	07:23 16:59	06:31 17:46		06:25 19:34	05:28 20:20	04:52 20:58	
7	07:52 16:13	07:21 17:01	06:29 17:48		06:23 19:36	05:26 20:21	04:52 20:59	
8	07:52 16:15	07:20 17:03	06:27 17:49		06:21 19:37	05:24 20:23	04:51 21:00	
9	07:51 16:16	07:18 17:04	06:25 17:51		06:19 19:39	05:23 20:24	04:51 21:01	
10	07:51 16:17	07:16 17:06	06:23 17:52		06:17 19:40	05:21 20:26	04:50 21:02	
11	07:50 16:18	07:15 17:08	06:21 17:54		06:15 19:42	05:20 20:27	04:50 21:02	
12	07:50 16:20	07:13 17:09	06:19 17:56		06:13 19:44	05:18 20:29	19:59 (3) 20:00 (3)	04:50 21:03
13	07:49 16:21	07:11 17:11	06:16 17:57		06:11 19:45	05:17 20:30	19:59 (3) 20:02 (3)	04:50 21:04
14	07:49 16:23	07:10 17:13	06:14 17:59		06:09 19:47	05:15 20:31	19:59 (3) 20:04 (3)	04:49 21:04
15	07:48 16:24	07:08 17:15	06:12 18:00		06:07 19:48	05:14 20:33	19:58 (3) 20:04 (3)	04:49 21:05
16	07:47 16:25	07:06 17:16	06:10 18:02		06:05 19:50	05:12 20:34	19:58 (3) 20:06 (3)	04:49 21:05
17	07:47 16:27	07:04 17:18	06:08 18:03		06:03 19:51	05:11 20:36	19:58 (3) 20:07 (3)	04:49 21:06
18	07:46 16:28	07:02 17:20	16:50 (1) 16:53 (1)	06:06 18:05	06:01 19:53	05:10 20:37	19:58 (3) 20:09 (3)	04:49 21:06
19	07:45 16:30	07:01 17:21	16:49 (1) 16:55 (1)	06:04 18:07	17:40 (2) 17:42 (2)	05:09 19:54	19:57 (3) 20:09 (3)	04:49 21:06
20	07:44 16:31	06:59 17:23	16:48 (1) 16:57 (1)	06:02 18:08	17:39 (2) 17:44 (2)	05:57 19:56	19:57 (3) 20:10 (3)	04:49 21:07
21	07:43 16:33	06:57 17:25	16:48 (1) 16:59 (1)	05:59 18:10	17:38 (2) 17:46 (2)	05:55 19:57	19:58 (3) 20:12 (3)	04:49 21:07
22	07:42 16:35	06:55 17:26	16:48 (1) 17:01 (1)	05:57 18:11	17:37 (2) 17:47 (2)	05:53 19:59	19:58 (3) 20:13 (3)	04:50 21:07
23	07:41 16:36	06:53 17:28	16:48 (1) 17:03 (1)	05:55 18:13	17:36 (2) 17:49 (2)	05:51 20:00	19:58 (3) 20:14 (3)	04:50 21:07
24	07:40 16:38	06:51 17:30	16:48 (1) 17:05 (1)	05:53 18:14	17:35 (2) 17:50 (2)	05:49 20:02	19:59 (3) 20:15 (3)	04:50 21:07
25	07:39 16:39	06:49 17:31	16:48 (1) 17:07 (1)	05:51 18:16	17:35 (2) 17:51 (2)	05:47 20:03	19:59 (3) 20:16 (3)	04:51 21:07
26	07:38 16:41	06:47 17:33	16:49 (1) 17:08 (1)	05:49 18:17	17:35 (2) 17:53 (2)	05:45 20:05	20:00 (3) 20:17 (3)	04:51 21:07
27	07:36 16:43	06:45 17:35	16:50 (1) 17:09 (1)	05:47 18:19	17:35 (2) 17:55 (2)	05:43 20:06	20:00 (3) 20:17 (3)	04:51 21:07
28	07:35 16:44	06:43 17:36	16:50 (1) 17:07 (1)	05:44 18:20	17:36 (2) 17:56 (2)	05:41 20:08	20:02 (3) 20:17 (3)	04:52 21:07
29	07:34 16:46		06:42 19:22	18:36 (2) 20:09	05:40 20:51	04:58 20:51	20:03 (3) 20:16 (3)	04:52 21:07
30	07:33 16:48		06:40 19:24	18:38 (2) 20:11	05:38 20:52	04:57 20:52	20:04 (3) 20:15 (3)	04:53 21:07
31	07:31 16:49		06:38 19:25	18:39 (2) 18:51 (2)	05:36 20:53	04:56 20:53	20:05 (3) 20:14 (3)	
Potential sun hours	269	283	368	411	475	486		
Total, worst case		148		197	5	228		6
Sun reduction		0,34		0,36	0,42	0,51		0,46
Oper. time red.		1,00		1,00	1,00	1,00		1,00
Wind dir. red.		1,00		1,00	1,00	1,00		1,00
Total reduction		0,34		0,36	0,42	0,51		0,46
Total, real		51		71	2	116		3

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

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

SHADOW - Calendar

Shadow receptor: I - RB9

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December
1	04:53 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	04:54 21:07	05:28 20:37	06:12 19:40	06:56 18:35	06:45 16:35	07:31 16:00
3	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	04:55 21:06	05:30 20:34	06:15 19:36	06:59 18:31	06:48 16:31	07:34 15:59
5	04:56 21:06	05:32 20:33	06:17 19:33	07:01 18:29	06:50 16:30	07:35 15:58
6	04:57 21:05	05:33 20:31	06:18 19:31	07:02 18:27	06:52 16:28	07:36 15:58
7	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 15:58
8	04:58 21:04	05:36 20:28	06:21 19:27	07:05 18:22	06:55 16:25	07:39 15:57
9	04:59 21:03	05:37 20:26	06:23 19:25	07:07 18:20	06:57 16:24	07:40 15:57
10	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	05:01 21:02	05:40 20:23	06:25 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	05:02 21:01	05:42 20:21	06:27 19:18	07:12 18:14	17:27 (1) 17:38 (1)	07:01 16:19
13	05:03 21:01	05:43 20:19	06:28 19:16	07:13 18:12	17:24 (1) 17:39 (1)	07:03 16:18
14	05:04 21:00	05:45 20:17	06:30 19:14	07:15 18:10	17:22 (1) 17:41 (1)	07:05 16:17
15	05:05 20:59	05:46 20:15	06:31 19:12	07:16 18:08	17:21 (1) 17:42 (1)	07:06 16:15
16	05:06 20:58	05:48 20:13	06:33 19:10	07:18 18:06	17:20 (1) 17:39 (1)	07:08 16:14
17	05:07 20:57	05:49 20:12	06:34 19:08	07:19 18:04	17:20 (1) 17:37 (1)	07:09 16:13
18	05:09 20:56	05:50 20:09	06:36 19:05	07:21 18:02	17:19 (1) 17:36 (1)	07:11 16:12
19	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	17:19 (1) 17:33 (1)	07:13 16:11
20	05:11 20:54	05:53 20:06	06:39 19:01	07:24 17:58	17:19 (1) 17:31 (1)	07:14 16:09
21	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	17:19 (1) 17:29 (1)	07:16 16:08
22	05:13 20:52	05:56 20:03	06:42 18:57	07:27 17:54	17:19 (1) 17:27 (1)	07:17 16:07
23	05:14 20:51	05:58 20:02	06:43 18:55	07:29 17:52	17:20 (1) 17:25 (1)	07:19 16:06
24	05:16 20:50	05:59 20:01	06:44 18:52	07:31 17:51	17:21 (1) 17:23 (1)	07:20 16:06
25	05:17 20:48	06:01 20:19	06:46 18:50	06:32 16:49	07:22 16:05	07:52 16:01
26	05:18 20:47	06:02 20:18	06:47 18:48	06:34 16:47	07:23 16:04	07:52 16:02
27	05:20 20:46	06:04 20:17	06:49 18:46	06:35 16:45	07:25 16:03	07:52 16:02
28	05:21 20:44	06:05 20:16	06:50 18:44	06:37 16:43	07:26 16:02	07:53 16:03
29	05:22 20:43	06:06 20:14	06:52 18:42	06:39 16:41	07:27 16:02	07:53 16:04
30	05:24 20:42	06:08 20:13	06:53 18:39	06:40 16:40	07:29 16:01	07:53 16:05
31	05:25 20:40	06:09 20:12	06:54 19:44	06:42 16:38	07:53 16:06	07:53 16:06
Potential sun hours	490	447	379	335	275	256
Total, worst case	237		183	170		
Sun reduction	0,53		0,44	0,41		
Oper. time red.	1,00		1,00	1,00		
Wind dir. red.	1,00		1,00	1,00		
Total reduction	0,53		0,44	0,41		
Total, real	127		80	70		

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

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

Shadow receptor: J - RB10

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June
1	07:53 16:07	07:30 16:51	06:41 17:38	16:51 (1) 17:13 (1)	06:36 19:27	18:42 (2) 20:12
2	07:53 16:08	07:29 16:53	06:39 17:39	16:52 (1) 17:14 (1)	06:34 19:28	18:42 (2) 20:14
3	07:53 16:09	07:27 16:54	06:37 17:41	16:53 (1) 17:13 (1)	06:32 19:30	18:43 (2) 20:15
4	07:53 16:10	07:26 16:56	06:35 17:43	16:54 (1) 17:11 (1)	06:29 19:31	18:43 (2) 20:17
5	07:53 16:11	07:24 16:58	06:33 17:44	16:56 (1) 17:09 (1)	06:27 19:33	18:44 (2) 20:18
6	07:52 16:12	07:23 16:59	06:31 17:46	16:59 (1) 17:06 (1)	06:25 19:34	18:46 (2) 20:20
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	18:48 (2) 19:00 (2)	05:26 20:21
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	20:21
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	20:22
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	20:23
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	20:24
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	20:25
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	20:26
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	20:27
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	20:28
16	07:47 16:25	07:06 17:16	06:10 18:02	06:05 19:50	05:12 20:34	20:29
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	20:30
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	20:31
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	20:32
20	07:44 16:31	06:59 17:23	16:55 (1) 16:57 (1)	06:02 18:08	05:07 19:56	20:39
21	07:43 16:33	06:57 17:25	16:54 (1) 16:59 (1)	05:59 18:10	05:06 19:57	20:40
22	07:42 16:35	06:55 17:26	16:54 (1) 17:01 (1)	05:57 18:11	05:05 19:59	20:41
23	07:41 16:36	06:53 17:28	16:53 (1) 17:03 (1)	05:55 18:13	05:04 20:00	20:42
24	07:40 16:38	06:51 17:30	16:52 (1) 17:05 (1)	05:53 18:14	05:03 20:02	20:43
25	07:39 16:39	06:49 17:31	16:52 (1) 17:07 (1)	05:51 18:16	05:02 20:03	20:44
26	07:38 16:41	06:47 17:33	16:52 (1) 17:08 (1)	05:49 18:17	05:01 20:04	20:45
27	07:36 16:43	06:45 17:35	16:52 (1) 17:10 (1)	05:47 18:19	05:00 20:06	20:46
28	07:35 16:44	06:43 17:36	16:51 (1) 17:11 (1)	05:44 18:20	05:01 20:08	20:47
29	07:34 16:46		06:42 19:22	18:43 (2) 18:58 (2)	05:40 20:09	20:48
30	07:33 16:48		06:40 19:24	18:43 (2) 19:00 (2)	05:38 20:11	20:49
31	07:31 16:49		06:38 19:25	18:42 (2) 19:00 (2)	05:36 20:13	20:50
Potential sun hours	269	283	368	411	475	486
Total, worst case		106	185	134	44	466
Sun reduction		0,34	0,36	0,42	0,51	0,46
Oper. time red.		1,00	1,00	1,00	1,00	1,00
Wind dir. red.		1,00	1,00	1,00	1,00	1,00
Total reduction		0,34	0,36	0,42	0,51	0,46
Total, real		36	66	56	22	214

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

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

SHADOW - Calendar

Shadow receptor: J - RB10

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December
1	04:53 21:07 16	20:20 (3) 20:36 (3) 20:39	05:26 20:39 19:42	06:11 19:42 18:37	06:55 18:37 16:36	07:30 16:00 16:00
2	04:54 21:07 15	20:20 (3) 20:35 (3) 20:37	05:28 20:37 19:40	06:12 19:40 18:35	06:56 18:35 16:35	07:31 16:00 16:00
3	04:55 21:06 15	20:20 (3) 20:35 (3) 20:36	05:29 20:36 19:38	06:14 19:38 18:33	06:58 18:33 16:33	07:33 15:59 15:59
4	04:55 21:06 14	20:21 (3) 20:35 (3) 20:34	05:30 20:34 19:36	06:15 19:36 18:31	06:59 18:31 16:31	07:34 15:59 15:59
5	04:56 21:06 14	20:20 (3) 20:34 (3) 20:33	05:32 20:33 19:33	06:17 19:33 18:56 (2)	07:01 18:29 18:29	07:35 15:58 15:58
6	04:57 21:05 14	20:20 (3) 20:34 (3) 20:31	05:33 20:31 19:31	06:18 19:31 18:58 (2)	07:02 18:27 18:27	07:36 15:58 15:58
7	04:58 21:05 13	20:21 (3) 20:34 (3) 20:29	05:35 20:29 19:29	06:20 19:29 18:59 (2)	07:04 18:25 18:25	07:38 15:58 15:58
8	04:59 21:04 13	20:21 (3) 20:34 (3) 20:28	05:36 20:28 19:27	06:21 19:27 18:59 (2)	07:05 18:22 18:22	07:39 15:57 15:57
9	04:59 21:03 12	20:21 (3) 20:33 (3) 20:26	05:37 20:26 19:25	06:23 19:25 18:59 (2)	07:07 18:20 18:20	07:40 15:57 15:57
10	05:00 21:03 11	20:21 (3) 20:32 (3) 20:24	05:39 20:24 19:23	06:24 19:23 18:57 (2)	07:09 18:18 18:18	07:41 15:57 15:57
11	05:01 21:02 11	20:21 (3) 20:32 (3) 20:23	05:40 20:23 19:21	06:25 19:21 18:55 (2)	07:10 18:16 18:16	07:42 15:57 15:57
12	05:02 21:01 10	20:21 (3) 20:31 (3) 20:21	05:42 20:21 19:18	06:27 19:18 18:53 (2)	07:12 18:14 18:14	07:43 15:57 15:57
13	05:03 21:01 9	20:21 (3) 20:30 (3) 20:19	05:43 20:19 19:16	06:28 19:16 18:50 (2)	07:13 18:12 18:12	07:44 15:57 15:57
14	05:04 21:00 8	20:22 (3) 20:30 (3) 20:17	05:45 20:17 19:14	06:30 19:14 18:49 (2)	07:15 18:10 18:10	07:45 15:57 15:57
15	05:05 20:59 7	20:22 (3) 20:29 (3) 20:15	05:46 20:15 19:12	06:31 19:12 18:46 (2)	07:16 18:08 18:08	07:46 15:57 15:57
16	05:06 20:58 6	20:22 (3) 20:28 (3) 20:13	05:48 20:13 19:10	06:33 19:10 18:44 (2)	07:18 18:06 18:06	07:46 15:57 15:57
17	05:07 20:57 4	20:23 (3) 20:27 (3) 20:12	05:49 20:12 19:08	06:34 19:08 18:42 (2)	07:19 18:04 18:04	07:47 15:57 15:57
18	05:09 20:56 3	20:23 (3) 20:26 (3) 20:10	05:50 20:10 19:05	06:36 19:05 18:35 (2)	07:21 18:02 18:02	07:48 15:58 15:58
19	05:10 20:55 2	20:23 (3) 20:23 (3) 20:08	05:52 20:08 19:03	06:37 19:03 18:36 (2)	07:23 18:00 18:00	07:49 15:58 15:58
20	05:11 20:54 20:54	05:53 20:06 19:01	06:39 19:01 18:58	07:24 17:58 17:58	17:24 (1) 16:09 16:09	07:49 15:58 15:58
21	05:12 20:53 20:53	05:55 20:04 18:59	06:40 18:59 18:55	07:26 17:56 17:56	17:26 (1) 16:08 16:08	07:50 15:59 15:59
22	05:13 20:52 20:52	05:56 20:02 18:57	06:42 18:57 18:52	07:27 17:54 17:54	17:26 (1) 16:07 16:07	07:50 15:59 15:59
23	05:14 20:51 20:51	05:58 20:00 18:55	06:43 18:55 18:50	07:29 17:52 17:52	17:27 (1) 16:06 16:06	07:51 16:00 16:00
24	05:16 20:50 20:50	05:59 19:58 18:52	06:44 18:52 18:48	07:31 17:51 17:51	07:20 16:06 16:06	07:51 16:00 16:00
25	05:17 20:48 20:48	06:01 19:56 18:50	06:46 18:50 18:46	07:32 16:49 16:49	07:22 16:05 16:05	07:52 16:01 16:01
26	05:18 20:47 20:47	06:02 19:54 18:48	06:47 18:48 18:44	07:33 16:47 16:47	07:23 16:04 16:04	07:52 16:02 16:02
27	05:20 20:46 20:46	06:04 19:52 18:46	06:49 18:46 18:42	07:35 16:45 16:45	07:25 16:03 16:03	07:52 16:02 16:02
28	05:21 20:44 20:44	06:05 19:50 18:44	06:50 18:44 18:40	07:37 16:43 16:43	07:26 16:02 16:02	07:53 16:03 16:03
29	05:22 20:43 20:43	06:06 19:48 18:42	06:52 18:42 18:39	07:39 16:41 16:41	07:27 16:02 16:02	07:53 16:04 16:04
30	05:24 20:42 20:42	06:08 19:46 18:39	06:53 18:39 18:35	07:40 16:40 16:40	07:29 16:01 16:01	07:53 16:05 16:05
31	05:25 20:40 20:40	06:09 19:44 18:35	06:54 18:35 18:31	07:41 16:40 16:40	07:30 16:01 16:01	07:53 16:06 16:06
Potential sun hours	490	447	379	335	275	256
Total, worst case	197		223	211		
Sun reduction	0,53		0,44	0,41		
Oper. time red.	1,00		1,00	1,00		
Wind dir. red.	1,00		1,00	1,00		
Total reduction	0,53		0,44	0,41		
Total, real	105		98	87		

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

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

Project: Sazomin
Description: Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
30.05.2025 10:36/4.1.273

SHADOW - Calendar

Shadow receptor: K - RB11
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December	
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:12	04:55 20:54	20:12 (1) 20:24 (1)	04:53 21:07	20:17 (1) 20:36 (1)	05:26 20:39	06:11 19:42	06:55 18:37	06:43 16:36
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14	04:55 20:55	20:11 (1) 20:24 (1)	04:54 21:07	20:16 (1) 20:35 (1)	05:28 20:37	06:12 19:40	06:56 18:35	06:45 16:35
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:15	04:54 20:56	20:12 (1) 20:26 (1)	04:55 21:06	20:17 (1) 20:35 (1)	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33
4	07:53 16:10	07:26 16:56	06:35 17:43	06:29 19:31	05:31 20:17	04:53 20:57	20:11 (1) 20:26 (1)	04:55 21:06	20:18 (1) 20:35 (1)	05:30 20:34	06:15 19:36	06:59 18:31	06:48 16:31
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:18	04:53 20:58	20:12 (1) 20:27 (1)	04:56 21:05	20:17 (1) 20:34 (1)	05:32 20:33	06:17 19:33	07:01 18:29	06:50 16:30
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:58	20:11 (1) 20:28 (1)	04:57 21:05	20:18 (1) 20:34 (1)	05:33 20:31	06:18 19:31	07:02 18:27	06:52 16:28
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:21	04:52 20:59	20:12 (1) 20:29 (1)	04:58 21:05	20:18 (1) 20:34 (1)	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	04:51 21:00	20:11 (1) 20:29 (1)	04:59 21:04	20:19 (1) 20:34 (1)	05:36 20:28	06:21 19:27	07:05 18:22	06:55 16:25
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	20:12 (1) 20:30 (1)	04:59 21:03	20:19 (1) 20:33 (1)	05:37 20:26	06:23 19:25	07:07 18:20	06:57 16:24
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	04:51 21:02	20:12 (1) 20:31 (1)	05:00 21:03	20:19 (1) 20:32 (1)	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	20:13 (1) 20:32 (1)	05:01 21:02	20:19 (1) 20:31 (1)	05:40 20:22	06:25 19:21	07:10 18:16	07:00 16:21
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	20:12 (1) 20:32 (1)	05:02 21:01	20:20 (1) 20:31 (1)	05:42 20:21	06:27 19:18	07:12 18:14	07:01 16:19
13	07:49 16:21	07:11 17:11	06:16 17:57	06:11 19:45	05:17 20:30	04:50 21:03	20:12 (1) 20:32 (1)	05:03 21:01	20:20 (1) 20:30 (1)	05:43 20:19	06:28 19:16	07:13 18:12	07:03 16:18
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	04:50 21:04	20:13 (1) 20:33 (1)	05:04 21:00	20:21 (1) 20:30 (1)	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:49 21:05	20:13 (1) 20:33 (1)	05:05 20:59	20:22 (1) 20:29 (1)	05:46 20:15	06:31 19:12	07:16 18:08	07:06 16:15
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	20:13 (1) 20:34 (1)	05:06 20:58	20:22 (1) 20:28 (1)	05:48 20:13	06:33 19:10	07:18 18:06	07:08 16:14
17	07:46 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:05	20:13 (1) 20:34 (1)	05:07 20:57	20:23 (1) 20:27 (1)	05:49 20:12	06:34 19:08	07:19 18:04	07:09 16:13
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	20:14 (1) 20:35 (1)	05:09 20:56	20:24 (1) 20:26 (1)	05:50 20:10	06:36 19:05	07:21 18:02	07:11 16:12
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	20:14 (1) 20:35 (1)	05:10 20:55	20:26 (1) 20:08	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 21:07	20:14 (1) 20:35 (1)	05:11 20:54	20:08 20:06	05:53 20:06	06:39 19:01	07:24 17:58	07:14 16:10
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:50 21:07	20:15 (1) 20:36 (1)	05:12 20:53	20:05 20:04	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:08
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	20:15 (1) 20:36 (1)	05:13 20:52	20:04 20:02	05:56 18:57	06:42 17:54	07:27 17:54	07:17 16:07
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43	04:50 21:07	20:15 (1) 20:36 (1)	05:15 20:51	20:00 20:00	05:58 18:55	06:43 17:52	07:29 17:52	07:19 16:06
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	20:15 (1) 20:36 (1)	05:16 20:50	20:00 19:58	05:59 18:52	06:44 17:51	07:31 17:51	07:20 16:06
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 21:07	20:16 (1) 20:36 (1)	05:17 20:48	20:01 19:56	06:01 18:50	06:46 17:50	07:32 17:50	07:22 16:05
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:07	20:14 (1) 20:36 (1)	05:18 20:47	20:02 19:54	06:02 18:48	06:47 17:48	07:23 17:48	07:23 16:04
27	07:36 16:43	06:45 17:35	05:47 18:19	05:43 20:06	05:00 20:48	04:51 21:07	20:16 (1) 20:37 (1)	05:20 20:46	20:04 19:52	06:04 18:46	06:49 17:46	06:35 17:46	07:24 16:03
28	07:35 16:44	06:43 17:36	05:44 18:20	05:41 20:08	04:59 20:49	04:52 21:07	20:16 (1) 20:36 (1)	05:21 20:44	20:05 19:50	06:05 18:44	06:50 17:43	06:37 17:43	07:26 16:03
29	07:34 16:46		06:42 19:22	05:40 20:09	04:58 20:50	04:52 21:07	20:17 (1) 20:37 (1)	05:22 20:43	20:06 19:48	06:06 18:42	06:52 17:41	06:39 17:41	07:27 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	20:16 (1) 20:36 (1)	05:24 20:42	20:08 19:46	06:08 18:39	06:53 17:40	07:29 17:40	07:29 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53	20:13 (1) 20:23 (1)		05:25 20:40	06:09 19:44		06:42 17:38		07:53 16:06
Potential sun hours	269	283	368	411	475	486	490		447	379	335	275	256
Total, worst case					43	568		225					
Sun reduction					0,51	0,46		0,53					
Oper. time red.					1,00	1,00		1,00					
Wind dir. red.					1,00	1,00		1,00					
Total reduction					0,51	0,46		0,53					
Total, real					22	261		120					

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

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

Shadow receptor: L - RB12

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:12	04:55 20:54	20:23 (1) 21:07	05:26 19:42	06:11 18:37	06:55 16:36	06:43 16:00	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14	04:55 20:55	20:21 (1) 21:07	05:28 19:40	06:12 18:35	06:56 16:35	06:45 16:35	07:31 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:15	04:54 20:56	20:21 (1) 21:06	05:29 19:38	06:14 18:33	06:58 16:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:29 19:31	05:31 20:17	04:53 20:57	20:21 (1) 21:06	05:30 19:36	06:15 18:31	06:59 16:31	06:48 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:18	04:53 20:58	20:21 (1) 21:05	05:32 19:33	06:17 18:29	07:01 16:30	06:50 15:58	07:35 15:58
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:58	20:20 (1) 21:05	05:33 19:31	06:18 18:27	07:02 16:28	06:52 16:28	07:36 15:58
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:21	04:52 20:59	20:20 (1) 21:05	05:35 19:29	06:20 18:25	07:04 16:27	06:53 16:27	07:37 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	04:51 21:00	20:19 (1) 21:04	05:36 19:27	06:21 18:22	07:05 16:25	06:55 16:25	07:39 15:57
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	20:20 (1) 21:03	05:37 19:25	06:23 18:20	07:07 16:24	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	04:51 21:02	20:20 (1) 21:03	05:39 19:23	06:24 18:18	07:09 16:22	06:58 16:22	07:41 15:57
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	20:20 (1) 21:02	05:40 19:21	06:25 18:16	07:10 16:21	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	20:19 (1) 21:01	05:42 19:18	06:27 18:14	07:12 16:19	07:01 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:16 17:57	06:11 19:45	05:17 20:30	04:50 21:03	20:20 (1) 21:01	05:43 19:16	06:28 18:12	07:13 16:18	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	04:50 21:04	20:20 (1) 21:00	05:45 19:14	06:30 18:10	07:15 16:17	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:49 21:05	20:20 (1) 21:05	05:46 19:12	06:31 18:08	07:16 16:15	07:06 16:15	07:45 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	20:20 (1) 21:05	05:48 19:10	06:33 18:06	07:18 16:14	07:08 16:14	07:46 15:57
17	07:46 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:05	20:20 (1) 21:05	05:49 19:08	06:34 18:04	07:19 16:13	07:09 16:13	07:47 15:57
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	20:20 (1) 21:06	05:50 19:05	06:36 18:02	07:21 16:12	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	20:20 (1) 21:05	05:52 19:03	06:37 18:00	07:23 16:11	07:13 16:11	07:48 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 21:07	20:20 (1) 21:05	05:53 19:01	06:39 17:58	07:24 16:10	07:14 16:10	07:49 15:58
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:50 21:07	20:21 (1) 21:05	05:55 19:04	06:40 17:56	07:26 16:08	07:16 16:08	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	20:21 (1) 21:05	05:56 19:02	06:42 17:54	07:27 16:07	07:17 16:07	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43	04:50 21:07	20:21 (1) 21:05	05:58 19:00	06:43 17:52	07:29 16:06	07:19 16:06	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	20:21 (1) 21:05	05:59 18:52	06:44 17:51	07:31 16:06	07:20 16:06	07:51 16:00
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 21:07	20:22 (1) 21:05	06:01 18:50	06:46 17:50	07:32 16:05	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:07	20:22 (1) 21:05	06:02 18:48	06:47 17:47	07:33 16:04	07:23 16:04	07:52 16:02
27	07:36 16:43	06:45 17:35	05:47 18:19	05:43 20:06	05:00 20:48	04:51 21:07	20:23 (1) 21:05	06:04 18:46	06:49 17:46	07:35 16:03	07:24 16:03	07:52 16:02
28	07:35 16:44	06:43 17:36	05:44 18:20	05:42 20:08	04:59 20:49	04:52 21:07	20:23 (1) 21:04	06:05 18:44	06:50 17:43	07:36 16:02	07:26 16:02	07:52 16:03
29	07:34 16:46		06:42 19:22	05:40 20:09	04:58 20:50	04:52 21:07	20:24 (1) 21:03	06:07 18:42	06:52 17:41	07:37 16:02	07:27 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	20:23 (1) 21:03	06:08 18:39	06:53 17:40	07:29 16:01	07:29 16:01	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53		20:25 20:40	06:09 19:44		06:42 16:38		07:53 16:06
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256
Total, worst case						345		84				
Sun reduction						0,46		0,53				
Oper. time red.						1,00		1,00				
Wind dir. red.						1,00		1,00				
Total reduction						0,46		0,53				
Total, real						159		45				

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

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

SHADOW - Calendar

Shadow receptor: M - RB13
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:12	04:55 20:54	04:53 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:43 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:39	06:34 19:28	05:34 20:14	04:55 20:55	04:54 21:07	05:28 20:37	06:12 19:40	06:56 18:35	06:45 16:35	07:31 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:15	04:54 20:56	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:29 19:31	05:31 20:17	04:53 20:57	04:55 21:06	05:30 20:34	06:15 19:36	06:59 18:31	06:48 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	05:29 20:18	04:53 20:58	04:56 21:05	05:32 20:33	06:17 19:33	07:01 18:29	06:50 16:30	07:35 15:58
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:58	04:57 21:05	05:33 20:31	06:18 19:31	07:02 18:27	06:52 16:28	07:36 15:58
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:21	04:52 20:59	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:37 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	05:24 20:23	04:51 21:00	04:59 21:04	05:36 20:28	06:21 19:27	07:05 18:22	06:55 16:25	07:39 15:57
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	04:59 21:03	05:37 20:26	06:23 19:25	07:07 18:20	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:40	05:21 20:26	04:51 21:02	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:50 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	05:40 20:22	06:25 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:01	05:42 20:21	06:27 19:18	07:12 18:14	07:01 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:16 17:57	06:11 19:45	05:17 20:30	04:50 21:03	05:03 21:01	05:43 20:19	06:28 19:16	07:13 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	05:15 20:31	04:50 21:04	05:04 21:00	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:49 21:05	05:05 20:59	05:46 20:15	06:31 19:12	07:16 18:08	07:06 16:15	07:45 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:06 20:58	05:48 20:13	06:33 19:10	07:18 18:06	07:08 16:14	07:46 15:57
17	07:46 16:27	07:04 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:05	05:07 20:57	05:49 20:12	06:34 19:08	07:19 18:04	07:09 16:13	07:47 15:57
18	07:46 16:28	07:02 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	05:50 20:10	06:36 19:05	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:48 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	04:49 21:07	05:11 20:54	05:53 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:58
21	07:43 16:33	06:57 17:25	05:59 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:08	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:56 20:02	06:42 18:57	07:27 17:54	07:17 16:07	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:43	04:50 21:07	05:15 20:51	05:58 20:00	06:43 18:55	07:29 17:52	07:19 16:06	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:59 19:58	06:44 18:52	07:31 17:51	07:20 16:06	07:51 16:00
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	05:02 20:46	04:51 21:07	05:17 20:48	06:01 19:56	06:46 18:50	07:26 17:49	07:16 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	05:01 20:47	04:51 21:07	05:18 20:47	06:02 19:54	06:47 18:48	07:23 17:47	07:13 16:04	07:52 16:02
27	07:36 16:43	06:45 17:35	05:47 18:19	05:43 20:06	05:00 20:48	04:51 21:07	05:20 20:46	06:04 19:52	06:49 18:46	07:24 17:45	07:14 16:03	07:52 16:02
28	07:35 16:44	06:43 17:36	05:44 18:20	05:42 20:08	04:59 20:49	04:52 21:07	05:21 20:44	06:05 19:50	06:50 18:44	07:25 17:43	07:15 16:02	07:52 16:03
29	07:34 16:46		06:42 19:22	05:40 20:09	04:58 20:50	04:52 21:07	05:22 20:43	06:07 19:48	06:52 18:42	07:27 17:41	07:16 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	05:24 20:42	06:08 19:46	06:53 18:39	07:29 17:40	07:29 16:01	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53		05:25 20:40	06:09 19:44		06:42 17:38		07:53 16:06
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Project: Sazomin
Description: Sazomin

Licensed user:
Integra Consulting Ltd.
Sudoměřská 1243/25
CZ-130 00 Praha 3
+420 724 110 779
Integra Consulting / windpro@integracons.com
Calculated:
30.05.2025 10:36/4.1.273

SHADOW - Calendar

Shadow receptor: N - RB14
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December		
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:56 20:54	05:31 (1) 05:46 (1)	04:54 21:07	05:26 20:39	05:53 (1) 05:55 (1)	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	05:35 20:14	04:55 20:55	05:31 (1) 05:45 (1)	04:54 21:07	05:28 20:37		06:12 19:40	06:57 18:35	06:45 16:35	07:31 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56	05:33 (1) 05:45 (1)	04:55 21:06	05:29 20:36		06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	05:31 20:17	04:54 20:57	05:33 (1) 05:44 (1)	04:56 21:06	05:31 20:34		06:15 19:36	07:00 18:31	06:49 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:28 19:33	05:29 20:19	04:53 20:58	05:35 (1) 05:43 (1)	04:56 21:06	05:32 20:33		06:17 19:34	07:01 18:29	06:50 16:30	07:35 15:59
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:59	05:36 (1) 05:41 (1)	04:57 21:05	05:33 3 05:47 (1)	05:33 20:31	06:18 19:31	07:03 18:27	06:52 16:28	07:36 15:58
7	07:52 16:14	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:22	04:52 20:59		04:58 21:05	05:35 7 05:49 (1)	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:38	05:25 20:23	04:51 21:00		04:59 21:04	05:36 10 05:51 (1)	05:36 20:28	06:21 19:27	07:06 18:23	06:55 16:25	07:39 15:58
9	07:51 16:16	07:18 17:05	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01		05:00 21:04	05:41 (1) 11 05:52 (1)	05:38 20:26	06:23 19:25	07:07 18:21	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:53	06:17 19:41	05:21 20:26	04:51 21:02		05:00 21:03	05:40 (1) 13 05:53 (1)	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:51 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02		05:01 21:02	05:39 (1) 14 05:53 (1)	05:40 20:23	06:26 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	05:42 (1) 05:45 (1)	04:50 21:03	05:02 21:02	05:38 (1) 16 05:54 (1)	05:42 20:21	06:27 19:19	07:12 18:14	07:02 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	05:41 (1) 05:46 (1)	04:50 21:04	05:03 21:01	05:38 (1) 17 05:55 (1)	05:43 20:19	06:29 19:16	07:13 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:15 17:59	06:09 19:47	05:15 20:32	05:40 (1) 05:47 (1)	04:50 21:04	05:04 21:00	05:37 (1) 18 05:55 (1)	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	05:38 (1) 05:47 (1)	04:50 21:05	05:05 20:59	05:37 (1) 19 05:56 (1)	05:46 20:15	06:31 19:12	07:16 18:08	07:06 16:16	07:46 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	05:37 (1) 05:48 (1)	04:49 21:05	05:06 20:58	05:37 (1) 19 05:56 (1)	05:48 20:14	06:33 19:10	07:18 18:06	07:08 16:14	07:46 15:57
17	07:47 16:27	07:04 17:18	06:08 18:04	06:03 19:51	05:11 20:36	05:36 (1) 05:48 (1)	04:49 21:06	05:08 20:57	05:36 (1) 21 05:57 (1)	05:49 20:12	06:34 19:08	07:20 18:04	07:10 16:13	07:47 15:58
18	07:46 16:29	07:03 17:20	06:06 18:05	06:01 19:53	05:10 20:37	05:35 (1) 05:49 (1)	04:49 21:06	05:09 20:56	05:36 (1) 21 05:57 (1)	05:51 20:10	06:36 19:06	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	05:34 (1) 05:49 (1)	04:49 21:06	05:10 20:55	05:38 (1) 21 05:59 (1)	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:49 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:07 20:40	05:32 (1) 05:48 (1)	04:50 21:07	05:11 20:54	05:39 (1) 20 05:59 (1)	05:54 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:59
21	07:43 16:33	06:57 17:25	06:00 18:10	05:55 19:57	05:06 20:41	05:31 (1) 05:48 (1)	04:50 21:07	05:12 20:53	05:40 (1) 19 05:59 (1)	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:09	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	05:30 (1) 05:48 (1)	04:50 21:07	05:13 20:52	05:41 (1) 18 05:59 (1)	05:56 20:02	06:42 18:57	07:27 17:54	07:17 16:08	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:44	05:29 (1) 05:48 (1)	04:50 21:07	05:15 20:51	05:42 (1) 17 05:59 (1)	05:58 20:00	06:43 18:55	07:29 17:53	07:19 16:07	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	05:28 (1) 05:48 (1)	04:50 21:07	05:16 20:50	05:43 (1) 16 05:59 (1)	05:59 19:58	06:45 18:53	07:31 17:51	07:20 16:06	07:51 16:01
25	07:39 16:40	06:49 17:31	05:51 18:16	05:47 20:04	05:02 20:46	05:27 (1) 05:48 (1)	04:51 21:07	05:17 20:48	05:45 (1) 14 05:59 (1)	06:01 19:56	06:46 18:50	06:32 16:49	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:18	05:45 20:05	05:01 20:47	05:28 (1) 05:49 (1)	04:51 21:08	05:18 20:47	05:46 (1) 13 05:59 (1)	06:02 19:54	06:48 18:48	06:34 16:47	07:23 16:04	07:52 16:02
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	05:00 20:48	05:28 (1) 05:48 (1)	04:52 21:07	05:20 20:46	05:47 (1) 11 05:58 (1)	06:04 19:52	06:49 18:46	06:35 16:45	07:25 16:03	07:52 16:03
28	07:35 16:44	06:43 17:36	05:45 18:21	05:42 20:08	04:59 20:50	05:28 (1) 05:48 (1)	04:52 21:07	05:21 20:45	05:48 (1) 10 05:58 (1)	06:05 19:50	06:51 18:44	06:37 16:43	07:26 16:02	07:53 16:03
29	07:34 16:46		06:42 19:22	05:40 20:10	04:58 20:51	05:29 (1) 05:47 (1)	04:52 21:07	05:22 20:43	05:49 (1) 8 05:57 (1)	06:07 19:48	06:52 18:42	06:39 16:42	07:27 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	05:29 (1) 05:46 (1)	04:53 21:07	05:24 20:42	05:51 (1) 6 05:57 (1)	06:08 19:46	06:54 18:40	06:40 16:40	07:29 16:01	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53	05:30 (1) 05:47 (1)		05:25 20:40	05:52 (1) 4 05:56 (1)	06:10 19:44		06:42 16:38		07:53 16:06
Potential sun hours	269	283	368	411	475	486	490	447			379	335	275	256
Total, worst case					300		65	366		2				
Sun reduction					0.51		0.46	0.53		0.55				
Oper. time red.					1.00		1.00	1.00		1.00				
Wind dir. red.					1.00		1.00	1.00		1.00				
Total reduction					0.51		0.46	0.53		0.55				
Total, real					152		30	196		1				

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

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

SHADOW - Calendar

Shadow receptor: O - RB15
Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:56 20:54	04:54 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	05:35 20:14	04:55 20:55	04:54 21:07	05:28 20:37	06:12 19:40	06:57 18:35	06:45 16:35	07:32 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	05:31 20:17	04:54 20:57	04:56 21:06	05:31 20:34	06:15 19:36	07:00 18:31	06:49 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:44	06:28 19:33	05:29 20:19	04:53 20:58	04:56 21:06	05:32 20:33	06:17 19:34	07:01 18:29	06:50 16:30	07:35 15:59
6	07:52 16:12	07:23 17:00	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:59	04:57 21:05	05:33 20:31	06:18 19:31	07:03 18:27	06:52 16:28	07:36 15:58
7	07:52 16:14	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:22	04:52 20:59	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:38	05:25 20:23	04:51 21:00	04:59 21:04	05:36 20:28	06:21 19:27	07:06 18:23	06:55 16:25	07:39 15:58
9	07:51 16:16	07:18 17:05	06:25 17:51	06:19 19:39	05:23 20:24	04:51 21:01	05:00 21:04	05:38 20:26	06:23 19:25	07:07 18:21	06:57 16:24	07:40 15:57
10	07:51 16:17	07:16 17:06	06:23 17:53	06:17 19:41	05:21 20:26	04:51 21:02	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:51 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	05:41 20:23	06:26 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:02	05:42 20:21	06:27 19:19	07:12 18:14	07:02 16:19	07:43 15:57
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	04:50 21:04	05:03 21:01	05:43 20:19	06:29 19:16	07:13 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:15 17:59	06:09 19:47	05:15 20:32	04:50 21:04	05:04 21:00	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:50 21:05	05:05 20:59	05:46 20:15	06:31 19:12	07:16 18:08	07:06 16:16	07:46 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:07 20:58	05:48 20:14	06:33 19:10	07:18 18:06	07:08 16:14	07:46 15:57
17	07:47 16:27	07:04 17:18	06:08 18:04	06:03 19:51	05:11 20:36	04:49 21:06	05:08 20:57	05:49 20:12	06:34 19:08	07:20 18:04	07:10 16:13	07:47 15:58
18	07:46 16:29	07:03 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	05:51 20:10	06:36 19:06	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:49 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:08 20:40	04:50 21:07	05:11 20:54	05:54 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:59
21	07:43 16:33	06:57 17:25	06:00 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:09	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:56 20:02	06:42 18:57	07:27 17:54	07:17 16:08	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	05:04 20:44	04:50 21:07	05:15 20:51	05:58 20:00	06:43 18:55	07:29 17:53	07:19 16:07	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:59 19:58	06:45 18:53	07:31 17:51	07:20 16:06	07:51 16:01
25	07:39 16:40	06:49 17:31	05:51 18:16	05:47 20:04	05:02 20:46	04:51 21:08	05:17 20:48	06:01 19:56	06:46 18:50	07:32 16:49	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:18	05:45 20:05	05:01 20:47	04:51 21:08	05:18 20:47	06:02 19:54	06:48 18:48	07:34 16:47	07:23 16:04	07:52 16:02
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	05:00 20:48	04:52 21:08	05:20 20:46	06:04 19:52	06:49 18:46	07:35 16:45	07:25 16:03	07:52 16:03
28	07:35 16:44	06:43 17:36	05:45 18:21	05:42 20:08	04:59 20:50	04:52 21:07	05:21 20:45	06:05 19:50	06:51 18:44	07:37 16:43	07:26 16:02	07:53 16:03
29	07:34 16:46		06:42 19:22	05:40 20:10	04:58 20:51	04:52 21:07	05:22 20:43	06:07 19:48	06:52 18:42	07:39 16:42	07:27 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	05:24 20:42	06:08 19:46	06:54 18:40	07:40 16:40	07:29 16:01	07:53 16:05
31	07:31 16:49		06:38 19:25		04:56 20:53		05:25 20:40	06:10 19:44		06:42 16:38		07:53 16:06
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

Shadow receptor: P - RB16

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

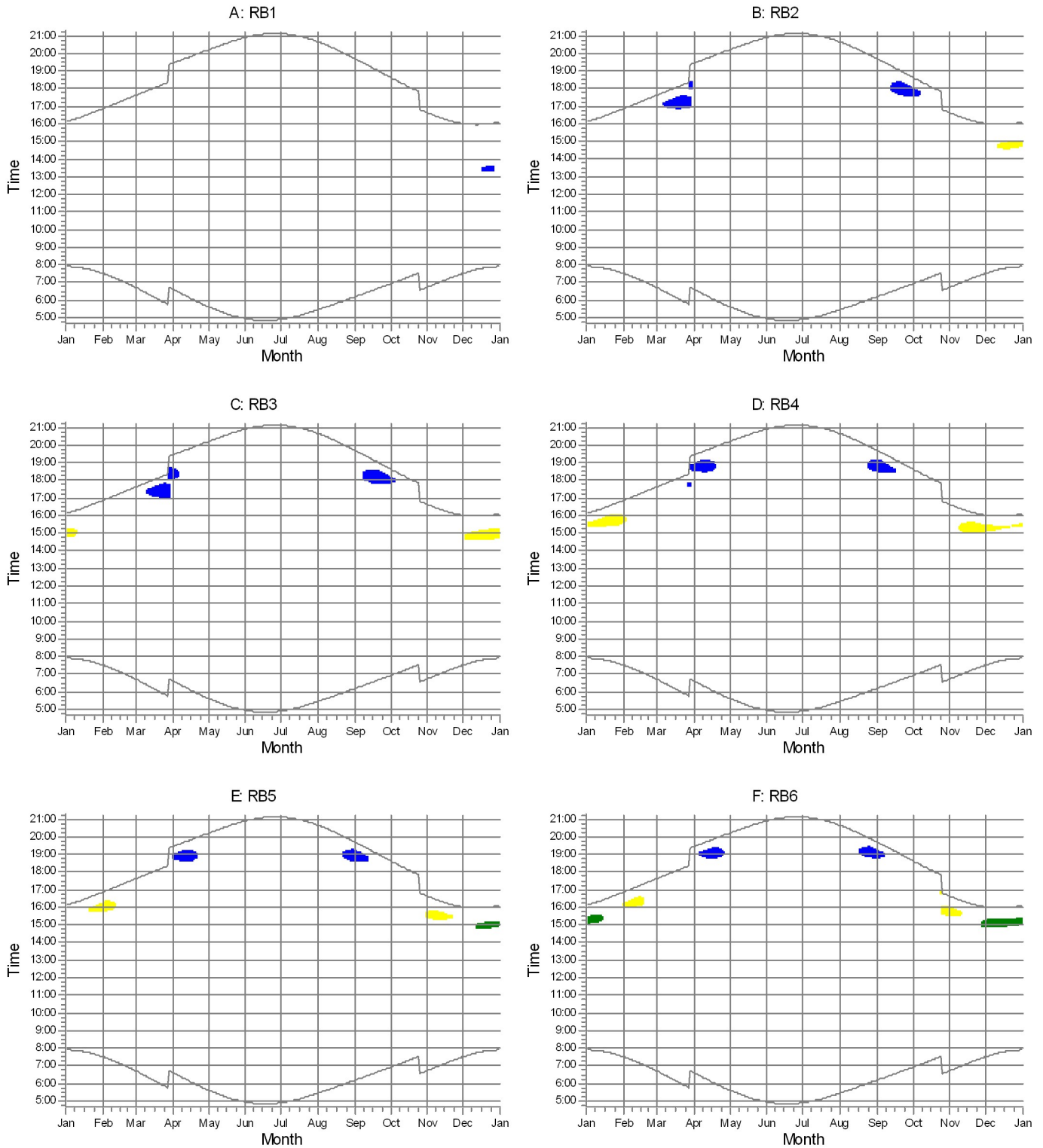
No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	July	August	September	October	November	December
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	05:36 20:13	04:56 20:54	04:54 21:07	05:26 20:39	06:11 19:42	06:55 18:37	06:44 16:36	07:30 16:00
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	05:35 20:14	04:55 20:55	04:54 21:07	05:28 20:37	06:13 19:40	06:57 18:35	06:45 16:35	07:32 16:00
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	05:33 20:16	04:54 20:56	04:55 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 16:33	07:33 15:59
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	05:31 20:17	04:54 20:57	04:56 21:06	05:31 20:34	06:15 19:36	07:00 18:31	06:49 16:31	07:34 15:59
5	07:53 16:11	07:24 16:58	06:33 17:45	06:28 19:33	05:29 20:19	04:53 20:58	04:56 21:06	05:32 20:33	06:17 19:34	07:01 18:29	06:50 16:30	07:35 15:59
6	07:53 16:12	07:23 17:00	06:31 17:46	06:25 19:34	05:28 20:20	04:52 20:59	04:57 21:05	05:33 20:31	06:18 19:31	07:03 18:27	06:52 16:28	07:37 15:58
7	07:52 16:14	07:21 17:01	06:29 17:48	06:23 19:36	05:26 20:22	04:52 20:59	04:58 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 15:58
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:38	05:25 20:23	04:51 21:00	04:59 21:04	05:36 20:28	06:21 19:27	07:06 18:23	06:55 16:25	07:39 15:58
9	07:52 16:16	07:18 17:05	06:25 17:51	06:19 19:39	05:23 20:25	04:51 21:01	05:00 21:04	05:38 20:26	06:23 19:25	07:07 18:21	06:57 16:24	07:40 15:57
10	07:51 16:17	07:17 17:06	06:23 17:53	06:17 19:41	05:21 20:26	04:51 21:02	05:00 21:03	05:39 20:24	06:24 19:23	07:09 18:18	06:58 16:22	07:41 15:57
11	07:51 16:19	07:15 17:08	06:21 17:54	06:15 19:42	05:20 20:27	04:50 21:02	05:01 21:02	05:41 20:23	06:26 19:21	07:10 18:16	07:00 16:21	07:42 15:57
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	05:18 20:29	04:50 21:03	05:02 21:02	05:42 20:21	06:27 19:19	07:12 18:14	07:02 16:20	07:43 15:57
13	07:50 16:21	07:11 17:11	06:17 17:57	06:11 19:45	05:17 20:30	04:50 21:04	05:03 21:01	05:43 20:19	06:29 19:16	07:13 18:12	07:03 16:18	07:44 15:57
14	07:49 16:23	07:10 17:13	06:15 17:59	06:09 19:47	05:15 20:32	04:50 21:04	05:04 21:00	05:45 20:17	06:30 19:14	07:15 18:10	07:05 16:17	07:45 15:57
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	05:14 20:33	04:50 21:05	05:05 20:59	05:46 20:16	06:31 19:12	07:16 18:08	07:06 16:16	07:46 15:57
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	05:13 20:34	04:49 21:05	05:06 20:58	05:48 20:14	06:33 19:10	07:18 18:06	07:08 16:14	07:47 15:57
17	07:47 16:27	07:04 17:18	06:08 18:04	06:03 19:51	05:11 20:36	04:49 21:06	05:08 20:57	05:49 20:12	06:34 19:08	07:20 18:04	07:10 16:13	07:47 15:58
18	07:46 16:29	07:03 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06	05:09 20:56	05:51 20:10	06:36 19:06	07:21 18:02	07:11 16:12	07:48 15:58
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	05:09 20:38	04:49 21:06	05:10 20:55	05:52 20:08	06:37 19:03	07:23 18:00	07:13 16:11	07:49 15:58
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	05:08 20:40	04:50 21:07	05:11 20:54	05:54 20:06	06:39 19:01	07:24 17:58	07:14 16:10	07:49 15:59
21	07:43 16:33	06:57 17:25	06:00 18:10	05:55 19:57	05:06 20:41	04:50 21:07	05:12 20:53	05:55 20:04	06:40 18:59	07:26 17:56	07:16 16:09	07:50 15:59
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	05:05 20:42	04:50 21:07	05:13 20:52	05:56 20:02	06:42 18:57	07:28 17:54	07:17 16:08	07:50 15:59
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:01	05:04 20:44	04:50 21:07	05:15 20:51	05:58 20:00	06:43 18:55	07:29 17:53	07:19 16:07	07:51 16:00
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	05:03 20:45	04:50 21:07	05:16 20:50	05:59 19:58	06:45 18:53	07:31 17:51	07:20 16:06	07:51 16:01
25	07:39 16:40	06:49 17:31	05:51 18:16	05:47 20:04	05:02 20:46	04:51 21:08	05:17 20:49	06:01 19:56	06:46 18:50	07:32 17:49	07:22 16:05	07:52 16:01
26	07:38 16:41	06:47 17:33	05:49 18:18	05:45 20:05	05:01 20:47	04:51 21:08	05:18 20:47	06:02 19:54	06:48 18:48	07:34 17:47	07:23 16:04	07:52 16:02
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	05:00 20:48	04:52 21:08	05:20 20:46	06:04 19:52	06:49 18:46	07:35 17:45	07:25 16:03	07:52 16:03
28	07:35 16:44	06:43 17:36	05:45 18:21	05:42 20:08	04:59 20:50	04:52 21:08	05:21 20:45	06:05 19:50	06:51 18:44	07:37 17:43	07:26 16:02	07:53 16:03
29	07:34 16:46		06:42 19:22	05:40 20:10	04:58 20:51	04:52 21:07	05:22 20:43	06:07 19:48	06:52 18:42	07:39 17:42	07:28 16:02	07:53 16:04
30	07:33 16:48		06:40 19:24	05:38 20:11	04:57 20:52	04:53 21:07	05:24 20:42	06:08 19:46	06:54 18:40	07:40 17:40	07:29 16:01	07:53 16:05
31	07:32 16:49		06:38 19:25		04:56 20:53		05:25 20:40	06:10 19:44		06:42 17:38		07:53 16:06
Potential sun hours	269	283	368	411	475	486	490	447	379	335	275	256
Total, worst case												
Sun reduction												
Oper. time red.												
Wind dir. red.												
Total reduction												
Total, real												

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

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

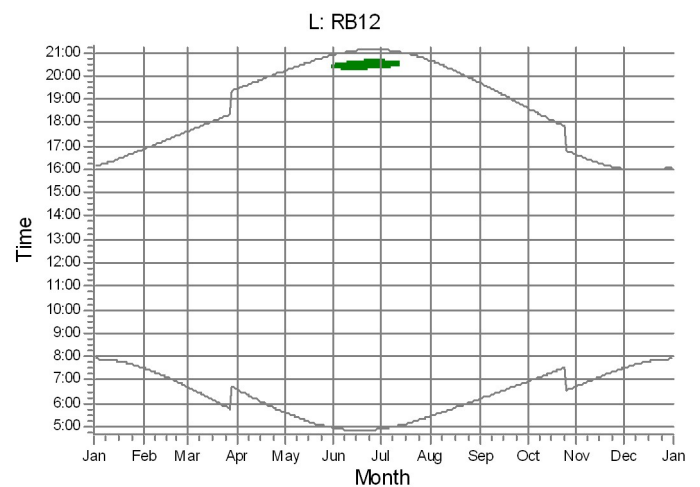
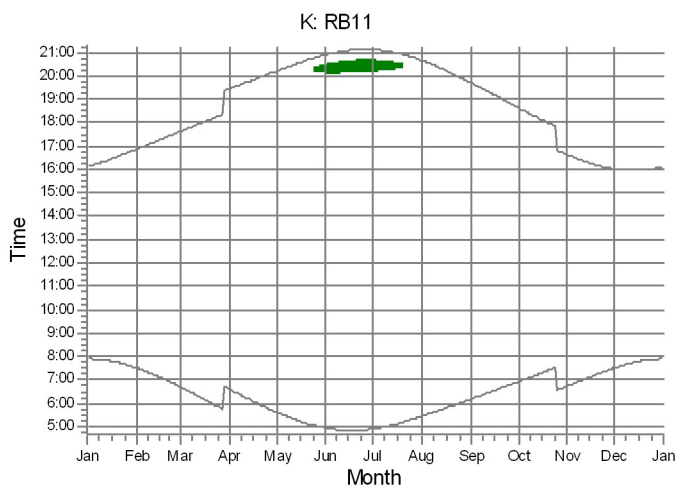
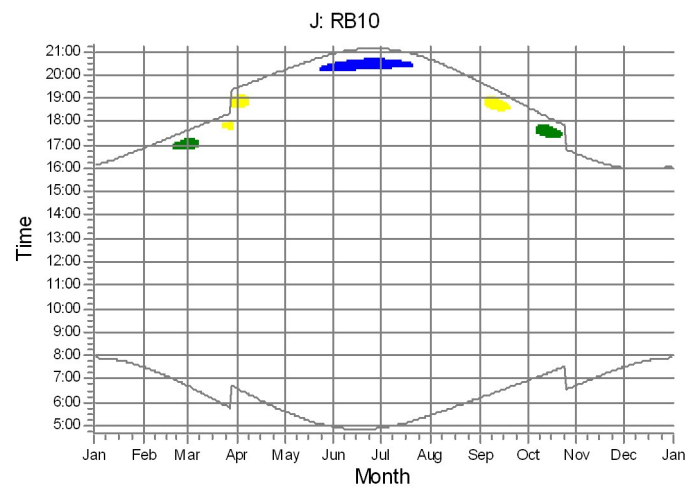
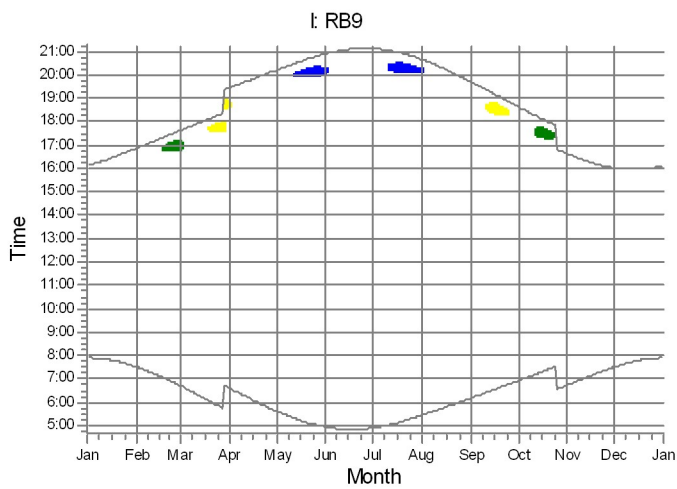
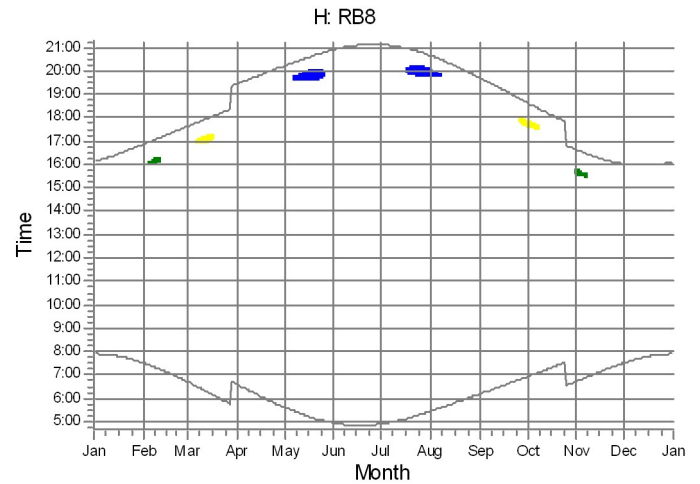
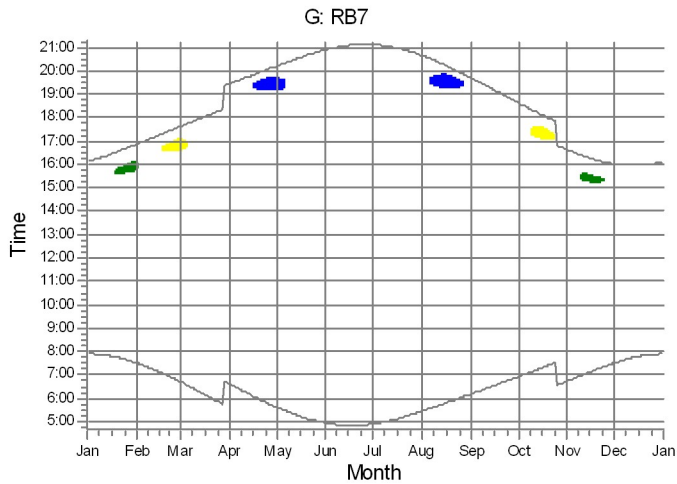
SHADOW - Calendar, graphical



WTGs

1: V1 2: V2 3: V3

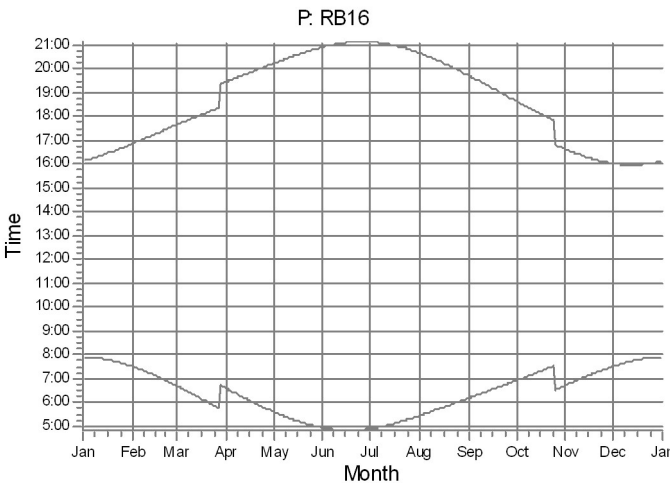
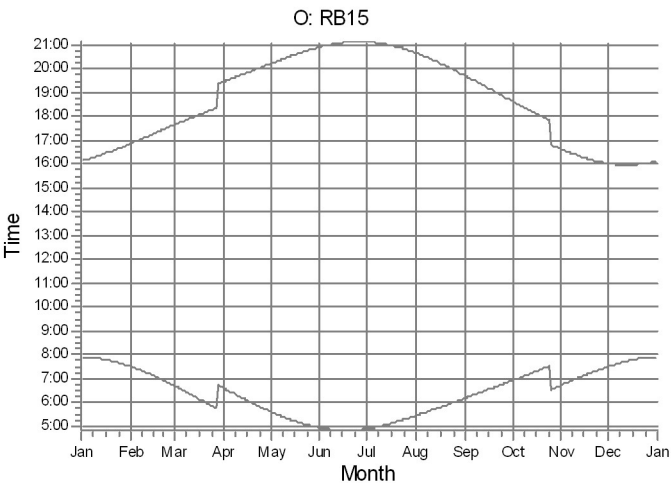
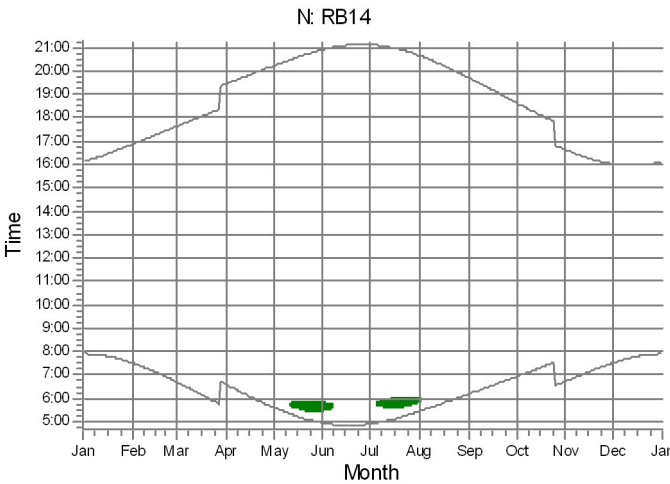
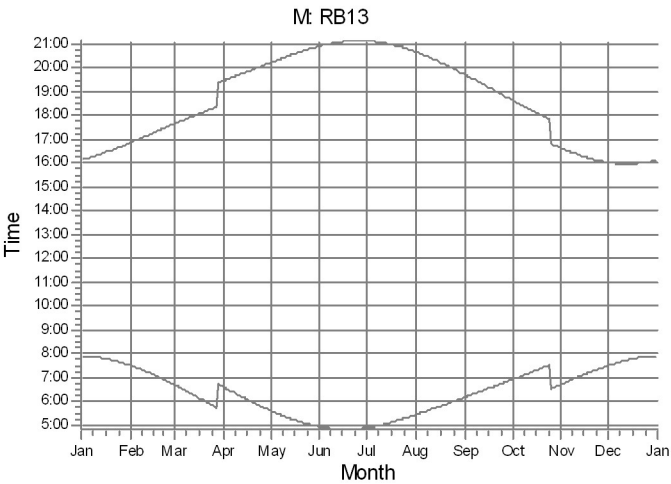
SHADOW - Calendar, graphical



WTGs

1: V1 2: V2 3: V3

SHADOW - Calendar, graphical



WTGs



1: V1

SHADOW - Calendar per WTG

WTG: 1 - V1

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January		February		March		April	May	June	
1	07:53	15:06-15:23/17	07:30	15:54-15:58/4	06:41	16:51-17:13/22	06:36	05:36	04:55	05:31-05:46/15
	16:07		16:51		17:38		19:27	20:13	20:54	20:12-20:24/12
2	07:53	15:06-15:23/17	07:29		06:39	16:52-17:14/22	06:34	05:34	04:55	05:31-05:45/14
	16:08		16:53		17:40		19:28	20:14	20:55	20:11-20:24/13
3	07:53	15:07-15:24/17	07:27		06:37	16:53-17:13/20	06:32	05:33	04:54	05:33-05:45/12
	16:09		16:54		17:41		19:30	20:16	20:56	20:12-20:26/14
4	07:53	15:08-15:26/18	07:26		06:35	16:54-17:11/17	06:30	05:31	04:53	05:33-05:44/11
	16:10		16:56		17:43		19:31	20:17	20:57	20:11-20:26/15
5	07:53	15:09-15:27/18	07:24	16:02-16:03/1	06:33	16:56-17:09/13	06:27	05:29	04:53	05:35-05:43/8
	16:11		16:58		17:44		19:33	20:19	20:58	20:12-20:27/15
6	07:52	15:09-15:28/19	07:23	16:03-16:06/3	06:31	16:59-17:06/7	06:25	05:28	04:52	05:36-05:41/5
	16:12		16:59		17:46		19:34	20:20	20:58	20:11-20:28/17
7	07:52	15:10-15:30/20	07:21	16:04-16:08/4	06:29		06:23	05:26	04:52	20:12-20:29/17
	16:14		17:01		17:48		19:36	20:21	20:59	
8	07:52	15:10-15:29/19	07:20	16:05-16:09/4	06:27		06:21	05:24	04:51	20:11-20:29/18
	16:15		17:03		17:49		19:37	20:23	21:00	
9	07:51	15:12-15:30/18	07:18	16:07-16:12/5	06:25		06:19	05:23	04:51	20:12-20:30/18
	16:16		17:04		17:51		19:39	20:24	21:01	
10	07:51	15:12-15:29/17	07:16	16:08-16:14/6	06:23		06:17	05:21	04:51	20:12-20:31/19
	16:17		17:06		17:52		19:41	20:26	21:02	
11	07:51	15:14-15:30/16	07:15	16:11-16:16/5	06:21		06:15	05:20	04:50	20:13-20:32/19
	16:19		17:08		17:54		19:42	20:27	21:02	
12	07:50	15:15-15:29/14	07:13		06:19		06:13	05:18 05:42-05:45/3	04:50	20:12-20:32/20
	16:20		17:10		17:56		19:44	20:29	21:03	
13	07:49	15:16-15:28/12	07:11		06:17		06:11	05:17 05:41-05:46/5	04:50	20:12-20:32/20
	16:21		17:11		17:57		19:45	20:30	21:04	
14	07:49	15:18-15:26/8	07:10		06:14		06:09	05:15 05:40-05:47/7	04:50	20:13-20:33/20
	16:23		17:13		17:59		19:47	20:32	21:04	
15	07:48		07:08		06:12		06:07	05:14 05:38-05:47/9	04:49	20:13-20:33/20
	16:24		17:15		18:00		19:48	20:33	21:05	
16	07:47		07:06		06:10		06:05	05:13 05:37-05:48/11	04:49	20:13-20:34/21
	16:26		17:16		18:02		19:50	20:34	21:05	
17	07:47		07:04		06:08		06:03	05:11 05:36-05:48/12	04:49	20:13-20:34/21
	16:27		17:18		18:03		19:51	20:36	21:06	
18	07:46		07:02 16:50-16:53/3		06:06		06:01	05:10 05:35-05:49/14	04:49	20:14-20:35/21
	16:29		17:20		18:05		19:53	20:37	21:06	
19	07:45	15:41-15:42/1	07:01 16:49-16:55/6		06:04		05:59	05:09 05:34-05:49/15	04:49	20:14-20:35/21
	16:30		17:21		18:07		19:54	20:38	21:06	
20	07:44	15:42-15:44/2	06:59 16:48-16:57/9		06:02		05:57	05:07 05:32-05:48/16	04:49	20:14-20:35/21
	16:32		17:23		18:08		19:56	20:40	21:07	
21	07:43	15:42-15:46/4	06:57 16:48-16:59/11		06:00		05:55	05:06 05:31-05:48/17	04:50	20:15-20:36/21
	16:33		17:25		18:10		19:57	20:41	21:07	
22	07:42	15:42-15:48/6	06:55 16:48-17:01/13		05:57		05:53	05:05 05:30-05:48/18	04:50	20:15-20:36/21
	16:35		17:26		18:11		19:59	20:42	21:07	
23	07:41	15:42-15:49/7	06:53 16:48-17:03/15		05:55		05:51	05:04 05:29-05:48/19	04:50	20:15-20:36/21
	16:36		17:28		18:13		20:00	20:44	21:07	
24	07:40	15:43-15:51/8	06:51 16:48-17:05/17		05:53		05:49	05:03 05:28-05:48/20	04:50	20:15-20:36/21
	16:38		17:30		18:14		20:02	20:45	21:07	
25	07:39	15:43-15:53/10	06:49 16:48-17:07/19		05:51		05:47	05:02 05:27-05:48/21	04:51	20:16-20:36/20
	16:39		17:31		18:16		20:03	20:46 20:15-20:16/1	21:07	
26	07:38	15:44-15:55/11	06:47 16:49-17:08/19		05:49		05:45	05:01 05:28-05:49/21	04:51	20:15-20:36/21
	16:41		17:33		18:17		20:05	20:47 20:14-20:17/3	21:07	
27	07:37	15:45-15:56/11	06:45 16:50-17:10/20		05:47		05:43	05:00 05:28-05:48/20	04:51	20:16-20:37/21
	16:43		17:35		18:19		20:06	20:48 20:14-20:19/5	21:07	
28	07:35	15:46-15:58/12	06:43 16:50-17:11/21		05:44		05:42	04:59 05:28-05:48/20	04:52	20:16-20:36/20
	16:44		17:36		18:21		20:08	20:49 20:13-20:20/7	21:07	
29	07:34	15:47-16:01/14			06:42		05:40	04:58 05:29-05:47/18	04:52	20:17-20:37/20
	16:46				19:22		20:10	20:51 20:13-20:21/8	21:07	
30	07:33	15:48-16:02/14			06:40		05:38	04:57 05:29-05:46/17	04:53	20:16-20:36/20
	16:48				19:24		20:11	20:52 20:12-20:21/9	21:07	
31	07:31	15:51-16:02/11			06:38			04:56 05:30-05:47/17		
	16:49				19:25			20:53 20:13-20:23/10		
Potential sun hours	269		283		368		411	475	486	
Sum of minutes with flicker	341		185		101		0	343	633	

Table 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

SHADOW - Calendar per WTG

WTG: 1 - V1

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

2,21 3,46 4,25 5,75 7,79 7,45 8,46 7,89 5,56 4,46 1,95 1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December
1	04:53 20:17-20:36/19 21:07	05:26 05:53-05:55/2 20:39	06:11 19:42	06:55 18:37	06:44 15:38-15:43/5 16:36	07:30 14:56-15:12/16 16:00
2	04:54 20:16-20:35/19 21:07	05:28 20:37	06:12 19:40	06:56 18:35	06:45 15:35-15:41/6 16:35	07:31 14:55-15:12/17 16:00
3	04:55 20:17-20:35/18 21:06	05:29 20:36	06:14 19:38	06:58 18:33	06:47 15:34-15:39/5 16:33	07:33 14:55-15:13/18 15:59
4	04:55 20:18-20:35/17 21:06	05:30 20:34	06:15 19:36	06:59 18:31	06:48 15:34-15:37/3 16:31	07:34 14:55-15:14/19 15:59
5	04:56 20:17-20:34/17 21:06	05:32 20:33	06:17 19:33	07:01 18:29	06:50 15:33-15:35/2 16:30	07:35 14:55-15:15/20 15:58
6	04:57 05:44-05:47/3 21:05	05:33 20:31	06:18 19:31	07:02 18:27	06:52 15:32-15:33/1 16:28	07:36 14:55-15:14/19 15:58
7	04:58 05:42-05:49/7 21:05	05:35 20:29	06:20 19:29	07:04 18:25	06:53 16:27	07:38 14:55-15:14/19 15:58
8	04:59 05:41-05:51/10 21:04	05:36 20:28	06:21 19:27	07:06 17:32-17:43/11 18:23	06:55 16:25	07:39 14:56-15:14/18 15:57
9	04:59 05:41-05:52/11 21:04	05:38 20:26	06:23 19:25	07:07 17:30-17:46/16 18:20	06:57 16:24	07:40 14:56-15:14/18 15:57
10	05:00 05:40-05:53/13 21:03	05:39 20:24	06:24 19:23	07:09 17:28-17:47/19 18:18	06:58 15:24-15:30/6 16:22	07:41 14:56-15:13/17 15:57
11	05:01 05:39-05:53/14 21:02	05:40 20:23	06:26 19:21	07:10 17:26-17:48/22 18:16	07:00 15:22-15:33/11 16:21	07:42 14:56-15:13/17 15:57
12	05:02 05:38-05:54/16 21:02	05:42 20:21	06:27 19:18	07:12 17:26-17:48/22 18:14	07:01 15:20-15:34/14 16:19	07:43 14:56-15:13/17 15:57
13	05:03 05:38-05:55/17 21:01	05:43 20:19	06:28 19:16	07:13 17:24-17:45/21 18:12	07:03 15:19-15:32/13 16:18	07:44 14:53-15:13/20 15:57
14	05:04 05:37-05:55/18 21:00	05:45 20:17	06:30 19:14	07:15 17:22-17:43/21 18:10	07:05 15:18-15:30/12 16:17	07:45 14:52-15:13/21 15:57
15	05:05 05:37-05:56/19 20:59	05:46 20:15	06:31 19:12	07:16 17:21-17:42/21 18:08	07:06 15:18-15:29/11 16:15	07:46 14:52-15:13/21 15:57
16	05:06 05:37-05:56/19 20:58	05:48 20:14	06:33 19:10	07:18 17:20-17:39/19 18:06	07:08 15:17-15:28/11 16:14	07:46 14:51-15:12/21 15:57
17	05:07 05:36-05:57/21 20:57	05:49 20:12	06:34 19:08	07:19 17:20-17:37/17 18:04	07:09 15:17-15:27/10 16:13	07:47 14:51-15:13/22 15:58
18	05:09 05:36-05:57/21 20:56	05:51 20:10	06:36 19:05	07:21 17:19-17:36/17 18:02	07:11 15:17-15:25/8 16:12	07:48 14:52-15:13/21 15:58
19	05:10 05:38-05:59/21 20:55	05:52 20:08	06:37 19:03	07:23 17:19-17:33/14 18:00	07:13 15:17-15:24/7 16:11	07:49 14:51-15:13/22 15:58
20	05:11 05:39-05:59/20 20:54	05:53 20:06	06:39 19:01	07:24 17:19-17:31/12 17:58	07:14 15:17-15:23/6 16:10	07:49 14:52-15:13/21 15:58
21	05:12 05:40-05:59/19 20:53	05:55 20:04	06:40 18:59	07:26 17:19-17:29/10 17:56	07:16 15:17-15:21/4 16:09	07:50 14:53-15:14/21 15:59
22	05:13 05:41-05:59/18 20:52	05:56 20:02	06:42 18:57	07:27 17:19-17:27/8 17:54	07:17 15:18-15:20/2 16:08	07:50 14:53-15:14/21 15:59
23	05:15 05:42-05:59/17 20:51	05:58 20:00	06:43 18:55	07:29 17:20-17:25/5 17:52	07:19 15:18-15:19/1 16:07	07:51 14:53-15:14/21 16:00
24	05:16 05:43-05:59/16 20:50	05:59 19:58	06:45 18:52	07:31 17:21-17:23/2 17:51	07:20 16:06	07:51 14:54-15:16/22 16:00
25	05:17 05:45-05:59/14 20:48	06:01 19:56	06:46 18:50	06:32 16:49	07:22 16:05	07:52 14:54-15:16/22 16:01
26	05:18 05:46-05:59/13 20:47	06:02 19:54	06:47 18:48	06:34 16:47	07:23 16:04	07:52 14:55-15:16/21 16:02
27	05:20 05:47-05:58/11 20:46	06:04 19:52	06:49 18:46	06:35 16:45	07:25 16:03	07:52 14:57-15:18/21 16:02
28	05:21 05:48-05:58/10 20:44	06:05 19:50	06:50 18:44	06:37 16:43	07:26 14:58-15:06/8 16:02	07:53 14:57-15:19/22 16:03
29	05:22 05:49-05:57/8 20:43	06:07 19:48	06:52 18:42	06:39 16:42	07:27 14:57-15:09/12 16:02	07:53 14:58-15:19/21 16:04
30	05:24 05:51-05:57/6 20:42	06:08 19:46	06:53 18:39	06:40 16:40	07:29 14:56-15:10/14 16:01	07:53 15:00-15:20/20 16:05
31	05:25 05:52-05:56/4 20:40	06:09 19:44		06:42 15:40-15:45/5 16:38		07:53 15:05-15:21/16 16:06
Potential sun hours	490	447	379	335	275	256
Sum of minutes with flicker	591	2	0	262	172	614

Table 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

SHADOW - Calendar per WTG

WTG: 2 - V2

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June
1	07:53 15:26-15:31/5 16:07 14:49-15:11/22	07:30 15:40-16:11/31 16:51	06:41 16:40-17:00/20 17:38	06:36 18:42-19:02/20 19:27	05:36 20:13	04:55 20:54
2	07:53 15:26-15:32/6 16:08 14:50-15:11/21	07:29 15:45-16:13/28 16:53	06:39 16:41-16:58/17 17:40	06:34 18:42-19:04/22 19:28	05:34 20:14	04:55 20:55
3	07:53 15:25-15:33/8 16:09 14:50-15:10/20	07:27 15:51-16:15/24 16:54	06:37 16:43-16:56/13 17:41	06:32 18:43-19:05/22 19:30	05:33 20:16	04:54 20:56
4	07:53 15:26-15:34/8 16:10 14:51-15:10/19	07:26 15:52-16:18/26 16:56	06:35 16:48-16:51/3 17:43	06:30 18:43-19:05/22 19:31	05:31 20:17	04:53 20:57
5	07:53 15:26-15:35/9 16:11 14:53-15:10/17	07:24 15:52-16:17/25 16:58	06:33 17:44	06:27 18:44-19:04/20 19:33	05:29 20:19	04:53 20:58
6	07:52 15:26-15:36/10 16:12 14:53-15:09/16	07:23 15:54-16:18/24 16:59	06:31 17:46	06:25 18:46-19:02/16 19:34	05:28 20:20	04:52 20:59
7	07:52 15:26-15:37/11 16:14 14:55-15:09/14	07:21 15:55-16:20/25 17:01	06:29 16:58-17:00/2 17:48	06:23 18:48-19:00/12 19:36	05:26 20:21	04:52 20:59
8	07:52 15:26-15:38/12 16:15 14:57-15:07/10	07:20 15:56-16:21/25 17:03	06:27 16:58-17:02/4 17:49	06:21 19:37	05:24 20:23	04:51 21:00
9	07:51 15:26-15:40/14 16:16 15:00-15:06/6	07:18 15:59-16:24/25 17:04	06:25 16:58-17:03/5 17:51	06:19 19:39	05:23 20:24	04:51 21:01
10	07:51 15:26-15:41/15 16:17	07:16 16:02-16:25/23 17:06	06:23 16:58-17:05/7 17:52	06:17 19:41	05:21 20:26	04:51 21:02
11	07:51 15:27-15:42/15 16:19	07:15 16:07-16:27/20 17:08	06:21 16:58-17:06/8 17:54	06:15 19:42	05:20 20:27	04:50 21:02
12	07:50 15:27-15:43/16 16:20	07:13 16:07-16:28/21 17:10	06:19 16:59-17:07/8 17:56	06:13 19:44	05:18 20:29	04:50 21:03
13	07:49 15:26-15:45/19 16:21	07:11 16:09-16:31/22 17:11	06:17 17:00-17:09/9 17:57	06:11 19:45	05:17 20:30	04:50 21:04
14	07:49 15:27-15:47/20 16:23	07:10 16:09-16:32/23 17:13	06:14 17:01-17:11/10 17:59	06:09 19:47	05:15 20:32	04:50 21:04
15	07:48 15:27-15:48/21 16:24	07:08 16:11-16:30/19 17:15	06:12 17:03-17:12/9 18:00	06:07 19:48	05:14 20:33	04:49 21:05
16	07:47 15:27-15:49/22 16:26	07:06 16:12-16:28/16 17:16	06:10 17:06-17:14/8 18:02	06:05 19:50	05:13 20:34	04:49 21:05
17	07:47 15:28-15:50/22 16:27	07:04 16:15-16:26/11 17:18	06:08 18:03	06:03 19:51	05:11 20:36	04:49 21:06
18	07:46 15:28-15:52/24 16:28	07:03 16:40-16:41/1 17:20	06:06 18:05	06:01 19:53	05:10 20:37	04:49 21:06
19	07:45 15:28-15:53/25 16:30	07:01 16:39-16:43/4 17:21	06:04 17:40-17:42/2 18:07	05:59 19:54	05:09 20:38	04:49 21:06
20	07:44 15:29-15:55/26 16:32	06:59 16:38-16:45/7 17:23	06:02 17:39-17:44/5 18:08	05:57 19:56	05:07 20:40	04:49 21:07
21	07:43 15:29-15:57/28 16:33	06:57 16:38-16:47/9 17:25	06:00 17:38-17:46/8 18:10	05:55 19:57	05:06 20:41	04:50 21:07
22	07:42 15:30-15:58/28 16:35	06:55 16:38-16:50/12 17:26	05:57 17:37-17:47/10 18:11	05:53 19:59	05:05 20:42	04:50 21:07
23	07:41 15:30-16:00/30 16:36	06:53 16:38-16:52/14 17:28	05:55 17:36-17:49/13 18:13	05:51 20:00	05:04 20:44	04:50 21:07
24	07:40 15:30-16:00/30 16:38	06:51 16:38-16:54/16 17:30	05:53 17:35-17:50/15 18:14	05:49 20:02	05:03 20:45	04:50 21:07
25	07:39 15:31-16:00/29 16:39	06:49 16:38-16:56/18 17:31	05:51 17:35-17:51/16 18:16	05:47 20:03	05:02 20:46	04:51 21:07
26	07:38 15:32-16:00/28 16:41	06:47 16:38-16:58/20 17:33	05:49 17:35-17:53/18 18:17	05:45 20:05	05:01 20:47	04:51 21:07
27	07:37 15:32-16:01/29 16:43	06:45 16:39-17:00/21 17:35	05:47 17:35-17:55/20 18:19	05:43 20:07	05:00 20:48	04:51 21:07
28	07:35 15:34-16:03/29 16:44	06:43 16:40-17:02/22 17:36	05:44 17:36-17:56/20 18:21	05:42 20:08	04:59 20:49	04:52 21:07
29	07:34 15:35-16:06/31 16:46		06:42 18:36-18:58/22 19:22	05:40 20:10	04:58 20:51	04:52 21:07
30	07:33 15:36-16:07/31 16:48		06:40 18:38-19:00/22 19:24	05:38 20:11	04:57 20:52	04:53 21:07
31	07:31 15:39-16:10/31 16:49		06:38 18:39-19:00/21 19:25		04:56 20:53	
Potential sun hours	269	283	368	411	475	486
Sum of minutes with flicker	777	532	315	134	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

SHADOW - Calendar per WTG

WTG: 2 - V2

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December
1	04:53 21:07	05:26 20:39	06:11 19:42	06:55 17:39-17:48/9 18:37	06:44 15:31-15:55/24 16:36	07:30 15:09-15:25/16 16:00
2	04:54 21:07	05:28 20:37	06:12 19:40	06:56 17:37-17:45/8 18:35	06:45 15:27-15:52/25 16:35	07:31 15:09-15:24/15 16:00
3	04:55 21:06	05:29 20:36	06:14 19:38	06:58 17:37-17:44/7 18:33	06:47 15:25-15:51/26 16:33	07:33 15:09-15:23/14 15:59 14:43-14:49/6
4	04:55 21:06	05:30 20:34	06:15 19:36	06:59 17:35-17:41/6 18:31	06:48 15:24-15:49/25 16:31	07:34 15:11-15:23/12 15:59 14:42-14:52/10
5	04:56 21:06	05:32 20:33	06:17 18:44-18:56/12 19:33	07:01 17:35-17:39/4 18:29	06:50 15:23-15:48/25 16:30	07:35 15:11-15:23/12 15:58 14:41-14:54/13
6	04:57 21:05	05:33 20:31	06:18 18:42-18:58/16 19:31	07:02 17:34-17:37/3 18:27	06:52 15:22-15:47/25 16:28	07:36 15:12-15:22/10 15:58 14:40-14:55/15
7	04:58 21:05	05:35 20:29	06:20 18:39-18:59/20 19:29	07:04 17:34-17:35/1 18:25	06:53 15:22-15:47/25 16:27	07:38 15:12-15:21/9 15:58 14:39-14:56/17
8	04:59 21:04	05:36 20:28	06:21 18:37-18:59/22 19:27	07:06 18:23	06:55 15:21-15:46/25 16:25	07:39 15:14-15:22/8 15:57 14:39-14:58/19
9	04:59 21:04	05:38 20:26	06:23 18:37-18:59/22 19:25	07:07 18:20	06:57 15:15-15:44/29 16:24	07:40 15:14-15:22/8 15:57 14:39-14:59/20
10	05:00 21:03	05:39 20:24	06:24 18:35-18:57/22 19:23	07:09 17:20-17:29/9 18:18	06:58 15:11-15:42/31 16:22	07:41 15:15-15:22/7 15:57 14:39-15:00/21
11	05:01 21:02	05:40 20:23	06:26 18:35-18:55/20 19:21	07:10 17:16-17:31/15 18:16	07:00 15:09-15:40/31 16:21	07:42 15:16-15:21/5 15:57 14:39-15:01/22
12	05:02 21:02	05:42 20:21	06:27 18:31-18:53/22 19:19	07:12 17:15-17:33/18 18:14	07:01 15:08-15:39/31 16:19	07:43 15:17-15:21/4 15:57 14:39-15:01/22
13	05:03 21:01	05:43 20:19	06:28 18:28-18:50/22 19:16	07:13 17:12-17:34/22 18:12	07:03 15:07-15:38/31 16:18	07:44 15:18-15:21/3 15:57 14:39-15:02/23
14	05:04 21:00	05:45 20:17	06:30 18:27-18:49/22 19:14	07:15 17:11-17:34/23 18:10	07:05 15:06-15:35/29 16:17	07:45 15:18-15:22/4 15:57 14:39-15:03/24
15	05:05 20:59	05:46 20:15	06:31 18:25-18:46/21 19:12	07:16 17:11-17:32/21 18:08	07:06 15:05-15:34/29 16:15	07:46 15:19-15:22/3 15:57 14:39-15:04/25
16	05:06 20:58	05:48 20:14	06:33 18:25-18:44/19 19:10	07:18 17:09-17:29/20 18:06	07:08 15:05-15:33/28 16:14	07:46 15:19-15:21/2 15:57 14:38-15:04/26
17	05:07 20:57	05:49 20:12	06:34 18:23-18:42/19 19:08	07:19 17:09-17:27/18 18:04	07:09 15:05-15:34/29 16:13	07:47 15:20-15:22/2 15:57 14:38-15:05/27
18	05:09 20:56	05:51 20:10	06:36 18:22-18:40/18 19:05	07:21 17:09-17:25/16 18:02	07:11 15:04-15:34/30 16:12	07:48 15:21-15:22/1 15:58 14:39-15:05/26
19	05:10 20:55	05:52 20:08	06:37 18:22-18:38/16 19:03	07:23 17:08-17:22/14 18:00	07:13 15:04-15:34/30 16:11	07:49 15:21-15:22/1 15:58 14:38-15:05/27
20	05:11 20:54	05:53 20:06	06:39 18:22-18:35/13 19:01	07:24 17:09-17:20/11 17:58	07:14 15:05-15:33/28 16:10	07:49 14:39-15:06/27 15:58
21	05:12 20:53	05:55 20:04	06:40 18:22-18:33/11 18:59	07:26 17:09-17:18/9 17:56	07:16 15:04-15:32/28 16:09	07:50 14:40-15:07/27 15:59
22	05:13 20:52	05:56 20:02	06:42 18:22-18:31/9 18:57	07:27 17:09-17:15/6 17:54	07:17 15:05-15:31/26 16:07	07:50 14:40-15:07/27 15:59
23	05:15 20:51	05:58 20:00	06:43 18:23-18:29/6 18:55	07:29 17:10-17:13/3 17:52	07:19 15:05-15:30/25 16:07	07:51 14:40-15:07/27 16:00
24	05:16 20:50	05:59 19:58	06:45 18:23-18:26/3 18:52	07:31 16:49-16:52/3 17:51	07:20 15:05-15:29/24 16:06	07:51 15:24-15:25/1 16:00 14:41-15:08/27
25	05:17 20:48	06:01 19:56	06:46 18:50	06:32 15:43-15:56/13 16:49	07:22 15:06-15:29/23 16:05	07:52 15:24-15:25/1 16:01 14:41-15:08/27
26	05:18 20:47	06:02 19:54	06:47 18:48	06:34 15:41-15:58/17 16:47	07:23 15:06-15:27/21 16:04	07:52 15:24-15:25/1 16:02 14:42-15:08/26
27	05:20 20:46	06:04 19:52	06:49 17:50-17:55/5 18:46	06:35 15:40-16:00/20 16:45	07:25 15:06-15:27/21 16:03	07:52 15:25-15:27/2 16:02 14:43-15:10/27
28	05:21 20:44	06:05 19:50	06:50 17:45-17:54/9 18:44	06:37 15:39-16:01/22 16:43	07:26 15:06-15:26/20 16:02	07:53 15:25-15:27/2 16:03 14:44-15:10/26
29	05:22 20:43	06:07 19:48	06:52 17:42-17:52/10 18:42	06:39 15:37-15:59/22 16:42	07:27 15:07-15:26/19 16:02	07:53 15:25-15:28/3 16:04 14:45-15:10/25
30	05:24 20:42	06:08 19:46	06:53 17:40-17:49/9 18:39	06:40 15:37-15:57/20 16:40	07:29 15:08-15:25/17 16:01	07:53 15:25-15:29/4 16:05 14:46-15:10/24
31	05:25 20:40	06:09 19:44		06:42 15:36-15:56/20 16:38		07:53 15:26-15:30/4 16:06 14:48-15:10/22
Potential sun hours	490	447	379	335	275	256
Sum of minutes with flicker	0	0	368	380	780	809

Table 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

SHADOW - Calendar per WTG

WTG: 3 - V3

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	January	February	March	April	May	June	
1	07:53 16:07	07:30 16:51	06:41 17:38	06:36 19:27	18:08-18:55/47 20:13	05:36 20:54	19:15-19:37/22 20:07-20:13/6
2	07:53 16:08	07:29 16:53	06:39 17:40	06:34 19:28	18:36-18:56/20 20:14	05:34 20:55	19:15-19:35/20 20:13-20:24/11
3	07:53 16:09	07:27 16:54	06:37 17:41	06:32 19:30	18:35-18:58/23 18:12-18:32/20	05:33 20:16	19:17-19:35/18 20:56
4	07:53 16:10	07:26 16:56	06:35 17:43	06:30 19:31	18:35-18:59/24 18:16-18:28/12	05:31 20:17	19:18-19:33/15 20:57
5	07:53 16:11	07:24 16:58	06:33 17:44	06:27 19:33	18:34-19:01/27 20:19	05:29 20:58	19:20-19:30/10 20:14-20:28/14
6	07:52 16:12	07:23 16:59	06:31 17:46	06:25 19:34	18:34-19:03/29 20:20	05:28 20:59	20:14-20:28/14 20:15-20:29/14
7	07:52 16:13	07:21 17:01	06:29 17:48	06:23 19:36	18:34-19:05/31 20:22	05:26 20:59	19:38-19:40/2 20:14-20:29/15
8	07:52 16:15	07:20 17:03	06:27 17:49	06:21 19:37	18:34-19:06/32 20:23	05:24 21:00	19:38-19:42/4 20:14-20:29/15
9	07:51 16:16	07:18 17:04	06:25 17:51	06:19 19:39	18:33-19:07/34 20:24	05:23 21:01	19:37-19:43/6 20:15-20:30/15
10	07:51 16:17	07:16 17:06	06:23 17:52	06:17 19:41	18:33-19:08/35 20:26	05:21 21:02	19:37-19:45/8 20:16-20:31/15
11	07:51 16:19	07:15 17:08	06:21 17:54	06:15 19:42	18:34-19:10/36 20:27	05:20 21:02	19:38-19:48/10 20:16-20:32/16
12	07:50 16:20	07:13 17:10	06:19 17:56	06:13 19:44	18:34-19:12/38 20:29	05:18 21:03	19:59-20:00/1 20:16-20:32/16
13	07:49 16:21	07:11 17:11	06:17 17:57	06:11 19:45	18:35-19:13/38 20:30	05:17 21:04	19:59-20:02/3 20:16-20:32/16
14	07:49 16:23	07:10 17:13	06:14 17:59	06:09 19:47	18:36-19:14/38 20:32	05:15 21:04	19:59-20:04/5 20:17-20:33/16
15	07:48 16:24	07:08 17:15	06:12 18:00	06:07 19:48	18:37-19:16/39 20:33	05:14 21:05	19:58-20:04/6 20:17-20:34/17
16	07:47 16:26	07:06 17:16	06:10 18:02	06:05 19:50	18:39-19:17/38 20:34	05:13 21:05	19:58-20:06/8 20:17-20:34/17
17	07:47 16:27	07:04 17:18	06:08 18:03	06:03 19:51	19:21-19:25/4 18:41-19:19/38	05:11 20:36	19:58-20:07/9 20:17-20:34/17
18	07:46 16:28	07:03 17:20	06:06 18:05	06:01 19:53	18:45-19:26/41 20:37	05:10 21:06	19:40-20:09/29 20:18-20:35/17
19	07:45 16:30	07:01 17:21	06:04 18:07	05:59 19:54	18:49-19:29/40 20:38	05:09 21:06	19:39-20:09/30 20:18-20:35/17
20	07:44 16:32	06:59 17:23	06:02 18:08	05:57 19:56	18:52-19:30/38 20:40	05:07 21:07	19:40-20:10/30 20:18-20:35/17
21	07:43 16:33	06:57 17:25	06:00 18:10	05:55 19:57	18:53-19:32/39 20:41	05:06 21:07	19:41-20:12/31 20:19-20:36/17
22	07:42 16:35	06:55 17:26	05:57 18:11	05:53 19:59	18:54-19:33/39 20:42	05:05 21:07	19:42-20:13/31 20:19-20:36/17
23	07:41 16:36	06:53 17:28	05:55 18:13	05:51 20:00	19:14-19:34/20 18:56-19:13/17	05:04 20:44	19:44-20:14/30 20:19-20:36/17
24	07:40 16:38	06:51 17:30	05:53 18:14	05:49 20:02	19:13-19:36/23 18:58-19:10/12	05:03 20:45	19:59-20:15/16 19:45-19:57/12
25	07:39 16:39	06:49 17:31	05:51 18:16	05:47 20:03	19:13-19:37/24 19:03-19:04/1	05:02 20:46	19:59-20:16/17 19:47-19:55/8
26	07:38 16:41	06:47 17:33	05:49 18:17	05:45 20:05	19:13-19:39/26 20:07	05:01 20:47	20:00-20:17/17 20:19-20:36/17
27	07:37 16:43	06:45 17:35	05:47 18:19	05:43 20:07	19:13-19:40/27 20:08	05:00 20:48	20:00-20:19/19 20:20-20:37/17
28	07:35 16:44	06:43 17:36	05:44 18:21	05:42 20:08	19:13-19:39/26 20:10	04:59 20:50	20:02-20:20/18 20:20-20:36/16
29	07:34 16:46		06:42 19:22	05:40 20:10	19:13-19:38/25 20:11	04:58 20:51	20:03-20:21/18 20:20-20:37/17
30	07:33 16:48		06:40 19:24	05:38 20:11	19:14-19:38/24 20:12	04:57 20:52	20:04-20:22/18 20:20-20:36/16
31	07:31 16:49		06:38 19:25			04:56 20:53	20:05-20:22/17 20:20-20:36/16
Potential sun hours	269	283	368	411	475	486	
Sum of minutes with flicker	0	0	860	1050	579	472	

Table 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

SHADOW - Calendar per WTG

WTG: 3 - V3

Assumptions for shadow calculations

Sunshine probability S (Average daily sunshine hours) [KUCHAROVICE]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2,21	3,46	4,25	5,75	7,79	7,45	8,46	7,89	5,56	4,46	1,95	1,94

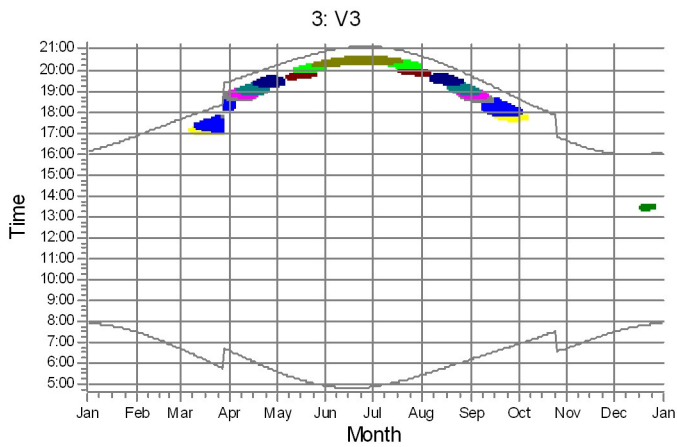
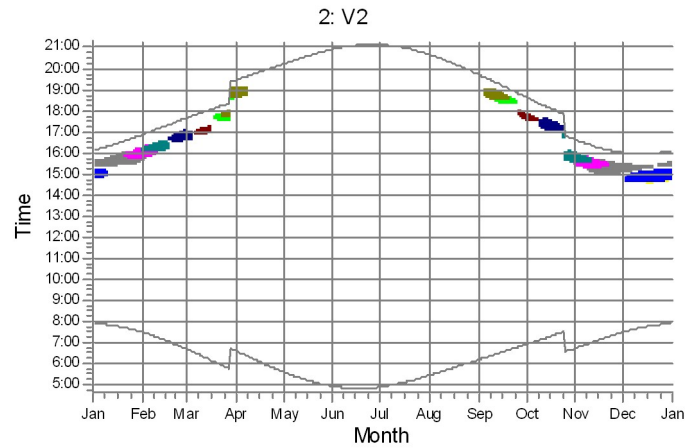
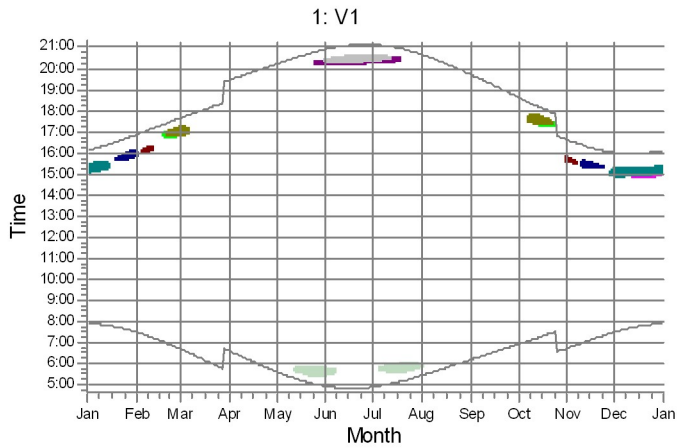
No operational time reduction. It is assumed the WTGs are always running with worst case wind direction.

	July	August	September	October	November	December
1	04:53 20:20-20:36/16 21:07	05:26 19:48-19:58/10 20:39	06:11 18:34-19:10/36 19:42	06:55 17:38-18:06/28 18:37	06:44 16:36 16:00	07:30 16:00
2	04:54 20:20-20:35/15 21:07	05:28 19:47-19:56/9 20:37	06:12 18:32-19:07/35 19:40	06:56 17:56-18:03/7 18:35 17:38-17:54/16	06:45 16:45 16:00	07:31 16:00
3	04:55 20:20-20:35/15 21:06	05:29 19:48-19:55/7 20:36	06:14 18:31-19:05/34 19:38	06:58 17:59-18:01/2 18:33 17:39-17:52/13	06:47 16:47 16:33	07:33 15:59
4	04:55 20:21-20:35/14 21:06	05:30 19:48-19:53/5 20:34	06:15 18:31-19:03/32 19:36	06:59 17:39-17:49/10 18:31	06:48 16:31 15:59	07:34 15:59
5	04:56 20:20-20:34/14 21:06	05:32 19:48-19:51/3 20:33	06:17 18:30-19:01/31 19:33	07:01 17:41-17:48/7 18:29	06:50 16:30 15:58	07:35 15:58
6	04:57 20:20-20:34/14 21:05	05:33 19:49-19:50/1 20:31	06:18 18:30-18:59/29 19:31	07:03 17:41-17:45/4 18:27	06:52 16:28 15:58	07:36 15:58
7	04:58 20:21-20:34/13 21:05	05:35 19:32-19:38/6 20:29	06:20 18:30-18:56/26 19:29	07:04 18:25 18:25	06:53 16:27 15:58	07:38 15:58
8	04:59 20:21-20:34/13 21:04	05:36 19:28-19:40/12 20:28	06:21 18:29-18:54/25 19:27 18:10-18:22/12	07:06 18:23 18:23	06:55 16:25 15:57	07:39 15:57
9	04:59 20:21-20:33/12 21:04	05:38 19:27-19:43/16 20:26	06:23 18:30-18:52/22 19:25 18:07-18:26/19	07:07 18:20 18:20	06:57 16:24 15:57	07:40 15:57
10	05:00 20:21-20:32/11 21:03	05:39 19:25-19:44/19 20:24	06:24 18:29-18:50/21 19:23 18:04-18:28/24	07:09 18:18 18:18	06:58 16:22 15:57	07:41 15:57
11	05:01 20:21-20:32/11 21:02 20:16-20:19/3	05:40 19:23-19:44/21 20:23	06:26 18:02-18:48/46 19:21	07:10 18:16 18:16	07:00 16:21 15:57	07:42 15:57
12	05:02 20:14-20:31/17 21:02	05:42 19:23-19:46/23 20:21	06:27 18:00-18:43/43 19:19	07:12 18:14 18:14	07:02 16:19 15:57	07:43 15:57
13	05:03 20:12-20:30/18 21:01	05:43 19:22-19:46/24 20:19	06:28 17:57-18:40/43 19:16	07:13 18:12 18:12	07:03 16:18 15:57	07:44 15:57
14	05:04 20:12-20:30/18 21:00	05:45 19:22-19:47/25 20:17	06:30 17:55-18:38/43 19:14	07:15 18:10 18:10	07:05 16:17 15:57	07:45 15:57
15	05:05 20:11-20:29/18 20:59	05:46 19:21-19:47/26 20:15	06:31 18:33-18:36/3 19:12 17:51-18:32/41	07:16 18:08 18:08	07:06 16:15 15:57	07:46 15:57
16	05:06 20:10-20:28/18 20:58	05:48 19:20-19:46/26 20:14	06:33 17:50-18:33/43 19:10	07:18 18:06 18:06	07:08 16:14 15:57	07:46 15:57
17	05:07 20:10-20:27/17 20:57	05:49 19:20-19:45/25 20:12	06:34 17:47-18:33/46 19:08	07:19 18:04 18:04	07:10 16:13 15:57	13:24-13:25/1 15:57
18	05:09 20:09-20:26/17 20:56 19:58-20:03/5	05:50 19:19-19:43/24 20:10 19:07-19:13/6	06:36 17:46-18:33/47 19:06	07:21 18:02 18:02	07:11 16:12 15:58	13:23-13:28/5 15:58
19	05:10 20:09-20:25/16 20:55 19:55-20:06/11	05:52 19:19-19:41/22 20:08 19:03-19:16/13	06:37 17:44-18:31/47 19:03	07:23 18:00 18:00	07:13 16:11 15:58	13:21-13:29/8 15:58
20	05:11 20:08-20:24/16 20:54 19:54-20:07/13	05:53 19:20-19:40/20 20:06 19:01-19:19/18	06:39 17:42-18:29/47 19:01	07:24 17:58 17:58	07:14 16:10 15:58	13:22-13:30/8 15:58
21	05:12 19:54-20:24/30 20:53	05:55 18:59-19:37/38 20:04	06:40 17:42-18:27/45 18:59	07:26 17:56 17:56	07:16 16:08 15:59	13:22-13:32/10 15:59
22	05:13 19:52-20:23/31 20:52	05:56 18:58-19:36/38 20:02	06:42 17:40-18:25/45 18:57	07:27 17:54 17:54	07:17 16:07 15:59	13:22-13:32/10 15:59
23	05:15 19:51-20:22/31 20:51	05:58 18:55-19:34/39 20:00	06:43 17:40-18:23/43 18:55	07:29 17:52 17:52	07:19 16:06 16:00	13:24-13:32/8 16:00
24	05:16 19:50-20:20/30 20:50	05:59 18:51-19:32/41 19:58	06:45 17:39-18:20/41 18:52	07:31 17:51 17:51	07:20 16:06 16:00	13:24-13:32/8 16:00
25	05:17 19:50-20:19/29 20:48	06:01 18:48-19:30/42 19:56	06:46 17:39-18:19/40 18:50	06:32 16:49 16:49	07:22 16:05 16:01	13:25-13:32/7 16:01
26	05:18 19:50-20:19/29 20:47	06:02 19:24-19:28/4 19:54 18:43-19:21/38	06:47 17:38-18:16/38 18:48	06:34 16:47 16:47	07:23 16:04 16:02	13:27-13:30/3 16:02
27	05:20 20:08-20:17/9 20:46 19:49-20:07/18	06:04 18:41-19:20/39 19:52	06:49 17:38-18:14/36 18:46	06:35 16:45 16:45	07:25 16:03 16:02	07:52 16:02
28	05:21 20:08-20:16/8 20:45 19:49-20:05/16	06:05 18:39-19:17/38 19:50	06:50 17:37-18:12/35 18:44	06:37 16:43 16:43	07:26 16:02 16:03	07:53 16:03
29	05:22 20:08-20:14/6 20:43 19:48-20:03/15	06:07 18:37-19:15/38 19:48	06:52 17:38-18:10/32 18:42	06:39 16:42 16:42	07:27 16:02 16:04	07:53 16:04
30	05:24 20:09-20:14/5 20:42 19:48-20:02/14	06:08 18:36-19:14/38 19:46	06:53 17:37-18:07/30 18:39	06:40 16:40 16:40	07:29 16:01 16:01	07:53 16:01
31	05:25 20:10-20:12/2 20:40 19:48-20:00/12	06:09 18:34-19:12/38 19:44	06:54 16:42 16:42	06:42 16:38 16:38	07:53 16:06 16:06	07:53 16:06
Potential sun hours	490	447	379	335	275	256
Sum of minutes with flicker	620	792	1180	87	0	68

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

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

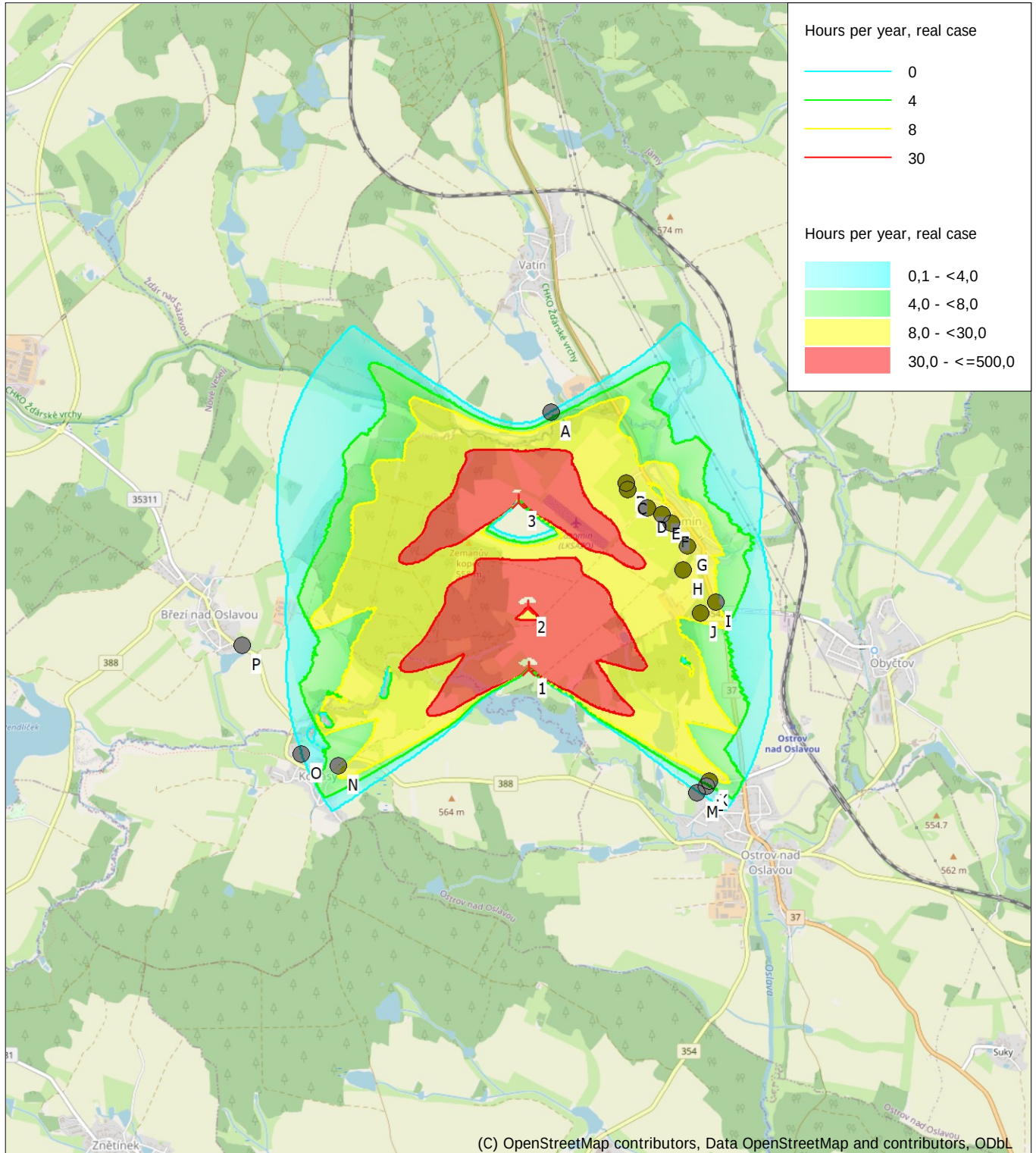
SHADOW - Calendar per WTG, graphical



Shadow receptors

	A: RB1		E: RB5		I: RB9		N: RB14
	B: RB2		F: RB6		J: RB10		
	C: RB3		G: RB7		K: RB11		
	D: RB4		H: RB8		L: RB12		

SHADOW - Map



Map: EMD OpenStreetMap , Print scale 1:40 000, Map center Geo WGS84 East: 15,964547° E North: 49,504683° N
 New WTG
 Shadow receptor
 Flicker map level: Project Wizard Elevation Data Grid (Czech Republic DTM - 20m grid)
 Time step: 2 minutes, Day step: 3 days, Map resolution: 10 m, Visibility resolution: 5 m, Eye height: 1,5 m