

SHADOW - Main Result

Calculation: Enercon E175H - Worst & Real Case CUMULATIVE

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) []

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1,17	2,29	4,58	6,82	8,69	9,44	8,63	7,75	5,49	2,82	0,76	0,60

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
525	418	431	316	378	835	821	879	1 160	1 002	1 008	680	8 453

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: DTM - Terrain model

Receptor grid resolution: 1,0 m

Topographic shadow included in calculation

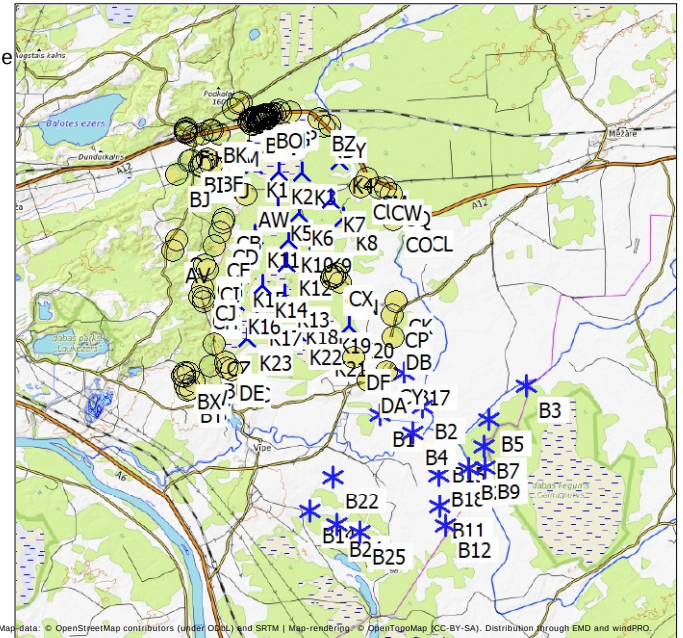
All coordinates are in

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	26,133687° E	56,495255° N	92,4	K20	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
2	26,122079° E	56,490850° N	90,8	K21	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
3	26,124174° E	56,496394° N	91,0	K19	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
4	26,109636° E	56,498504° N	90,7	K18	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
5	26,111253° E	56,493739° N	90,3	K22	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
6	26,092987° E	56,533585° N	92,2	K1	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
7	26,131467° E	56,521036° N	92,6	K8	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
8	26,093765° E	56,498252° N	90,2	K17	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
9	26,103142° E	56,523214° N	92,5	K5	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
10	26,120254° E	56,515533° N	96,3	K9	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
11	26,093276° E	56,516918° N	93,0	K11	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
12	26,106853° E	56,510195° N	91,2	K12	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
13	26,089645° E	56,492430° N	90,5	K23	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
14	26,129593° E	56,534258° N	91,8	K4	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
15	26,113605° E	56,531660° N	92,4	K3	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
16	26,086963° E	56,507489° N	91,9	K15	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
17	26,106123° E	56,502711° N	90,6	K13	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
18	26,085094° E	56,501058° N	90,6	K16	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
19	26,096745° E	56,505013° N	90,7	K14	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
20	26,112453° E	56,521917° N	92,4	K6	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
21	26,103421° E	56,531927° N	91,9	K2	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
22	26,126045° E	56,525271° N	92,8	K7	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
23	26,107497° E	56,515765° N	94,0	K10	Yes	ENERCON	E-175 EP5-6 000	6 000	175,0	175,0	1 735	-
24	26,147263° E	56,474202° N	86,6	B1	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
25	26,172826° E	56,452404° N	88,6	B11	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
26	26,175218° E	56,447698° N	88,8	B12	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
27	26,116912° E	56,451106° N	89,5	B14	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
28	26,172704° E	56,465904° N	87,5	B15	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
29	26,157352° E	56,484029° N	88,3	B17	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
30	26,172078° E	56,459777° N	87,4	B18	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
31	26,165173° E	56,476191° N	86,9	B2	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
32	26,126903° E	56,459445° N	88,5	B22	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
33	26,185332° E	56,461630° N	86,1	B23	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
34	26,128682° E	56,448011° N	89,6	B24	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
35	26,138586° E	56,446097° N	88,9	B25	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
36	26,209970° E	56,481126° N	87,8	B3	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
37	26,161081° E	56,469909° N	86,3	B4	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8

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SHADOW - Main Result

Calculation: Enercon E175H - Worst & Real Case CUMULATIVE

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	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]
38	26,193913° E	56,473053° N	87,1	B5	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
39	26,191707° E	56,466900° N	88,4	B7	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8
40	26,192580° E	56,461771° N	87,0	B9	Yes	NORDEX	N175/6.X-6 800	6 800	175,0	179,0	1 893	10,8

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	Mizuki	26,063286° E	56,541498° N	115,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
B	Lejas Sunas	26,063506° E	56,541370° N	114,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
C	Me ž sunas	26,063185° E	56,541958° N	117,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
D	Veca skola	26,064137° E	56,542003° N	115,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
E	Lejas Suni	26,067220° E	56,540460° N	107,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
F	Papeles	26,063771° E	56,540924° N	112,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
G	Vigriezes	26,087530° E	56,548261° N	102,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
H	Sunu Medilas	26,070454° E	56,540671° N	107,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
I	Kuku Pasile	26,084459° E	56,546804° N	104,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
J	Kuku Pasile 2	26,086284° E	56,548103° N	105,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
K	Bambari	26,071285° E	56,533849° N	106,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
L	Kukas Nr. 32	26,097933° E	56,545025° N	100,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
M	Zeltinkukas	26,097923° E	56,545071° N	100,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
N	Kukas Nr. 29	26,099665° E	56,545262° N	99,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
O	Lukapicku Bajari	26,059655° E	56,515709° N	136,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
P	Driksnas	26,097309° E	56,544914° N	100,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
Q	Lei š u Sils	26,122977° E	56,542609° N	92,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
R	Silmalas	26,070518° E	56,533356° N	109,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
S	Purmalrasas 2	26,096086° E	56,544720° N	99,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
T	Rozes	26,096916° E	56,544879° N	100,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
U	Gobinas	26,069881° E	56,533175° N	109,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
V	Kukas Nr. 5A	26,108687° E	56,545953° N	93,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
W	Kukas Nr. 1	26,094393° E	56,544291° N	98,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
X	Kaplica	26,101901° E	56,545728° N	97,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
Y	Kukas Nr. 8	26,096829° E	56,543964° N	97,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
Z	Kukas Nr. 22	26,097396° E	56,545205° N	100,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AA	Vasjkova nams	26,096559° E	56,544498° N	99,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AB	Kukas Nr. 7	26,097318° E	56,544069° N	97,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AC	Kukas Nr. 28	26,100077° E	56,545512° N	98,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AD	Kukas Nr. 2	26,093910° E	56,544204° N	97,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AE	Kukas Nr. 33	26,095190° E	56,544610° N	99,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AF	Kukas Nr. 24	26,098771° E	56,545347° N	99,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AG	Kukas Nr. 27	26,099229° E	56,545399° N	99,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AH	Kukas Nr. 10	26,096024° E	56,543781° N	97,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AI	Kukas Nr. 9	26,096452° E	56,543877° N	97,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AJ	Kukas Nr. 3	26,093305° E	56,544298° N	97,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AK	1	26,090963° E	56,543704° N	97,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AL	1	26,091047° E	56,544021° N	97,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AM	Kuku Drava	26,077988° E	56,540746° N	102,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AN	Kukas Nr. 17	26,095025° E	56,544828° N	99,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AO	Maja 145,3. km	26,103352° E	56,546415° N	94,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AP	Kukas Nr. 6	26,104578° E	56,545778° N	96,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AQ	Kukas Nr. 23	26,098304° E	56,545304° N	99,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AR	Kukas Nr. 15	26,093682° E	56,544507° N	97,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AS	Kukas Nr. 16	26,094237° E	56,544642° N	98,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AT	Kukas Nr. 31	26,097683° E	56,544128° N	97,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AU	Dukernieki	26,074658° E	56,533321° N	109,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AV	Lukapickas	26,058230° E	56,513249° N	135,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AW	Purmalrasas	26,089573° E	56,526337° N	100,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AX	Kukas 11	26,095602° E	56,543691° N	97,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AY	Kukas Nr. 4	26,092904° E	56,544767° N	97,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
AZ	Kukas Nr. 34	26,091860° E	56,543045° N	95,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BA	Kuku Medilas	26,075079° E	56,541753° N	104,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0

To be continued on next page...

SHADOW - Main Result

Calculation: Enercon E175H - Worst & Real Case CUMULATIVE

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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]
BB	Kraukli	26,065152° E	56,534400° N	110,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BC	Kuku Balo ž i	26,098273° E	56,544306° N	97,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BD	Kukas Nr. 13	26,094800° E	56,543545° N	96,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BE	Kukas Nr. 12	26,095264° E	56,543601° N	96,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BF	Kartupnieki	26,073040° E	56,534828° N	105,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BG	Kukas Nr. 30	26,100708° E	56,545660° N	97,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BH	Zeltinkukas 1	26,098768° E	56,545101° N	99,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BI	Mednieki	26,065620° E	56,534715° N	109,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BJ	O š lejas	26,059760° E	56,531276° N	111,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BK	Kraces	26,074410° E	56,541680° N	105,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BL	Kukas Nr. 5	26,092328° E	56,544483° N	97,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BM	Jani š i	26,096074° E	56,545089° N	99,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BN	Kukas Nr. 36	26,092574° E	56,544009° N	96,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BO	Kukas Nr. 20	26,096859° E	56,545176° N	100,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BP	Speldzinu Ozolini	26,067071° E	56,482035° N	105,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BQ	Bisenieki 2	26,063230° E	56,480993° N	104,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BR	Dujas	26,062426° E	56,483614° N	104,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BS	Malini	26,065318° E	56,480229° N	109,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BT	Speldzinu	26,064354° E	56,480104° N	109,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BU	Virzinas	26,074364° E	56,485874° N	104,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BV	Lici š i	26,064859° E	56,484163° N	103,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BW	Priednieku Bisenieki	26,063061° E	56,484142° N	106,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BX	Bisenieki	26,062834° E	56,483109° N	103,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BY	Lei š u Sils	26,125444° E	56,542875° N	92,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
BZ	Lei š usils	26,121034° E	56,544456° N	94,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CA	Strazdi	26,079632° E	56,519765° N	106,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CB	Radini	26,079889° E	56,520588° N	108,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CC	Kreslini	26,071224° E	56,501171° N	107,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CD	Sili	26,078392° E	56,517462° N	105,6	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CE	Skujenieki	26,071168° E	56,502014° N	107,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CF	Salmini	26,075652° E	56,514176° N	109,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CG	Senci	26,072043° E	56,509743° N	111,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CH	Pakalni	26,069473° E	56,502185° N	111,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CI	Skalbes	26,072883° E	56,508558° N	110,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CJ	Kastani	26,070978° E	56,504189° N	108,9	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CK	Kvie š i	26,154401° E	56,500923° N	90,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CL	Pukulejas	26,163466° E	56,520586° N	91,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CM	Celinieki	26,141552° E	56,530263° N	91,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CN	Purvini	26,130133° E	56,505780° N	94,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CO	Salenieki	26,152954° E	56,520418° N	93,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CP	Ogu Purvs	26,152484° E	56,497834° N	90,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CQ	Me ž a Papuli	26,151833° E	56,526776° N	90,3	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CR	Noras	26,126508° E	56,506629° N	96,7	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CS	Me ž mali	26,126691° E	56,507313° N	97,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CT	Kurani	26,127398° E	56,506989° N	97,4	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CU	Berzkalni	26,138739° E	56,528258° N	92,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CV	Saulcerini	26,149626° E	56,528094° N	93,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CW	Airites	26,146614° E	56,528054° N	93,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CX	Lejnieki	26,128573° E	56,507638° N	96,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CY	Vipmali	26,149895° E	56,484226° N	91,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
CZ	Celmalas	26,076176° E	56,490952° N	108,1	1,0	1,0	1,0	90,0	"Green house mode"	2,0
DA	Kalna Galvani	26,142426° E	56,482217° N	98,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
DB	Su š i	26,153079° E	56,492558° N	90,8	1,0	1,0	1,0	90,0	"Green house mode"	2,0
DC	Strautlejas	26,083178° E	56,484852° N	97,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
DD	Irgeni	26,080875° E	56,486825° N	98,2	1,0	1,0	1,0	90,0	"Green house mode"	2,0
DE	Alejas	26,081081° E	56,485255° N	101,5	1,0	1,0	1,0	90,0	"Green house mode"	2,0
DF	Galvani	26,135915° E	56,487671° N	95,0	1,0	1,0	1,0	90,0	"Green house mode"	2,0

SHADOW - Main Result

Calculation: Enercon E175H - Worst & Real Case CUMULATIVE

Calculation Results

Shadow receptor

No.	Name	Shadow, worst case		Max shadow hours per day	Shadow, expected values	
		Shadow hours per year [h/year]	Shadow days per year [days/year]		Shadow hours per year [h/year]	Shadow hours per year [h/year]
A	Mizuki	0:00	0	0:00	0:00	0:00
B	Lejas Sunas	0:00	0	0:00	0:00	0:00
C	Me Ž sunas	0:00	0	0:00	0:00	0:00
D	Veca skola	0:00	0	0:00	0:00	0:00
E	Lejas Suni	0:00	0	0:00	0:00	0:00
F	Papeles	0:00	0	0:00	0:00	0:00
G	Vigriezes	0:00	0	0:00	0:00	0:00
H	Sunu Medilas	11:21	35	0:26	1:48	1:48
I	Kuku Pasile	9:30	33	0:21	0:33	0:33
J	Kuku Pasile 2	0:00	0	0:00	0:00	0:00
K	Bambari	15:32	40	0:31	4:15	4:15
L	Kukas Nr. 32	22:22	44	0:45	1:20	1:20
M	Zeltinkukas	21:21	44	0:44	1:16	1:16
N	Kukas Nr. 29	19:19	47	0:31	1:13	1:13
O	Lukapicku Bajari	0:00	0	0:00	0:00	0:00
P	Driksnas	24:25	44	0:49	1:28	1:28
Q	Lei š u Sils	101:11	100	1:14	7:19	7:19
R	Silmalas	14:37	39	0:30	4:06	4:06
S	Purmalrasas 2	29:03	44	0:54	1:47	1:47
T	Rozes	25:07	43	0:50	1:31	1:31
U	Gobinas	13:47	38	0:29	3:54	3:54
V	Kukas Nr. 5A	26:24	74	0:26	1:50	1:50
W	Kukas Nr. 1	39:50	49	1:01	2:33	2:33
X	Kaplica	33:48	51	0:52	2:09	2:09
Y	Kukas Nr. 8	67:38	77	1:17	4:29	4:29
Z	Kukas Nr. 22	19:19	40	0:42	1:08	1:08
AA	Vasjkova nams	32:44	47	0:56	2:01	2:01
AB	Kukas Nr. 7	67:00	74	1:20	4:24	4:24
AC	Kukas Nr. 28	18:16	46	0:29	1:08	1:08
AD	Kukas Nr. 2	42:28	52	1:02	2:44	2:44
AE	Kukas Nr. 33	32:06	43	0:56	2:00	2:00
AF	Kukas Nr. 24	17:11	43	0:34	1:02	1:02
AG	Kukas Nr. 27	17:01	44	0:28	1:03	1:03
AH	Kukas Nr. 10	67:31	81	1:13	4:33	4:33
AI	Kukas Nr. 9	67:11	79	1:15	4:29	4:29
AJ	Kukas Nr. 3	42:01	53	1:01	2:43	2:43
AK	1	56:44	67	1:05	3:48	3:48
AL	1	51:04	64	1:03	3:24	3:24
AM	Kuku Drava	22:42	51	0:34	2:45	2:45
AN	Kukas Nr. 17	28:37	41	0:53	1:46	1:46
AO	Maja 145,3. km	19:01	50	0:28	1:13	1:13
AP	Kukas Nr. 6	32:06	61	0:46	2:05	2:05
AQ	Kukas Nr. 23	17:45	42	0:38	1:03	1:03
AR	Kukas Nr. 15	37:11	49	0:59	2:22	2:22
AS	Kukas Nr. 16	33:12	45	0:57	2:05	2:05
AT	Kukas Nr. 31	66:20	73	1:20	4:20	4:20
AU	Dukernieki	22:25	48	0:36	6:31	6:31
AV	Lukapickas	0:00	0	0:00	0:00	0:00
AW	Purmalrasas	125:10	239	0:55	22:37	22:37
AX	Kukas 11	50:26	57	1:07	3:17	3:17
AY	Kukas Nr. 4	34:29	49	0:56	2:11	2:11
AZ	Kukas Nr. 34	68:36	72	1:10	4:41	4:41
BA	Kuku Medilas	17:00	45	0:30	1:59	1:59
BB	Kraukli	8:30	29	0:24	2:13	2:13
BC	Kuku Balo ž i	62:21	69	1:20	4:04	4:04
BD	Kukas Nr. 13	54:25	57	1:09	3:35	3:35
BE	Kukas Nr. 12	52:43	57	1:09	3:27	3:27
BF	Kartupnieki	17:38	41	0:33	4:36	4:36
BG	Kukas Nr. 30	18:40	47	0:29	1:11	1:11
BH	Zeltinkukas 1	21:14	46	0:41	1:17	1:17
BI	Mednieki	8:55	30	0:24	2:17	2:17
BJ	O š lejas	0:00	0	0:00	0:00	0:00

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SHADOW - Main Result

Calculation: Enercon E175H - Worst & Real Case CUMULATIVE

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No.	Name	Shadow, worst case		Max shadow hours per day	Shadow, expected values	
		Shadow hours	Shadow days		Shadow hours	
		per year [h/year]	per year [days/year]		per year [h/year]	
BK	Kraces	15:55	44	0:29	1:58	
BL	Kukas Nr. 5	40:33	55	1:00	2:37	
BM	Jani š i	22:28	39	0:48	1:20	
BN	Kukas Nr. 36	48:44	59	1:05	3:12	
BO	Kukas Nr. 20	20:08	39	0:44	1:11	
BP	Speldzinu Ozolini	0:00	0	0:00	0:00	
BQ	Bisenieki 2	0:00	0	0:00	0:00	
BR	Dujas	0:00	0	0:00	0:00	
BS	Malini	0:00	0	0:00	0:00	
BT	Speldzinas	0:00	0	0:00	0:00	
BU	Virzinas	12:32	36	0:26	4:04	
BV	Lici š i	0:00	0	0:00	0:00	
BW	Priednieku Bisenieki	0:00	0	0:00	0:00	
BX	Bisenieki	0:00	0	0:00	0:00	
BY	Lei š u Sils	83:12	79	1:14	5:41	
BZ	Lei š usils	50:25	72	0:59	3:21	
CA	Strazdi	60:37	138	0:45	12:47	
CB	Radini	51:58	120	0:44	11:08	
CC	Kreslini	101:45	209	1:00	26:55	
CD	Sili	84:38	175	0:44	16:30	
CE	Skujenieki	113:06	232	0:46	29:35	
CF	Salmini	87:01	164	1:06	14:39	
CG	Senci	96:10	220	0:42	20:36	
CH	Pakalni	106:01	236	0:42	28:22	
CI	Skalbes	108:36	206	0:59	22:00	
CJ	Kastani	91:09	191	0:43	24:44	
CK	Kvie š i	13:52	37	0:29	2:29	
CL	Pukulejas	0:00	0	0:00	0:00	
CM	Celinieki	109:55	229	0:44	21:05	
CN	Purvini	110:18	192	1:14	14:38	
CO	Salenieki	16:23	41	0:31	4:49	
CP	Ogu Purvs	19:49	54	0:34	4:32	
CQ	Me ž a Papuli	54:33	145	0:29	14:51	
CR	Noras	132:46	209	1:31	17:55	
CS	Me ž mali	100:17	217	0:59	16:41	
CT	Kurani	102:58	217	1:03	16:56	
CU	Berzkalni	110:20	204	0:47	17:05	
CV	Saulcerini	65:06	158	0:31	17:10	
CW	Airites	65:15	148	0:34	15:36	
CX	Lejnieki	97:33	227	0:55	18:26	
CY	Vipmali	237:42	268	1:24	60:44	
CZ	Celmalas	69:44	130	0:49	22:06	
DA	Kalna Galvani	142:32	240	1:09	25:00	
DB	Su š i	76:07	135	0:44	10:45	
DC	Strautlejas	0:00	0	0:00	0:00	
DD	Irgeni	0:00	0	0:00	0:00	
DE	Alejas	0:00	0	0:00	0:00	
DF	Galvani	103:09	188	0:49	27:45	

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

No.	Name	Worst case [h/year]	Expected [h/year]
1	K20	110:28	17:41
2	K21	81:11	26:14
3	K19	81:22	5:22
4	K18	39:19	4:51
5	K22	40:49	6:49
6	K1	279:53	30:27
7	K8	138:19	17:49
8	K17	63:17	13:56
9	K5	70:15	19:04
10	K9	0:00	0:00

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SHADOW - Main Result

Calculation: Enercon E175H - Worst & Real Case CUMULATIVE

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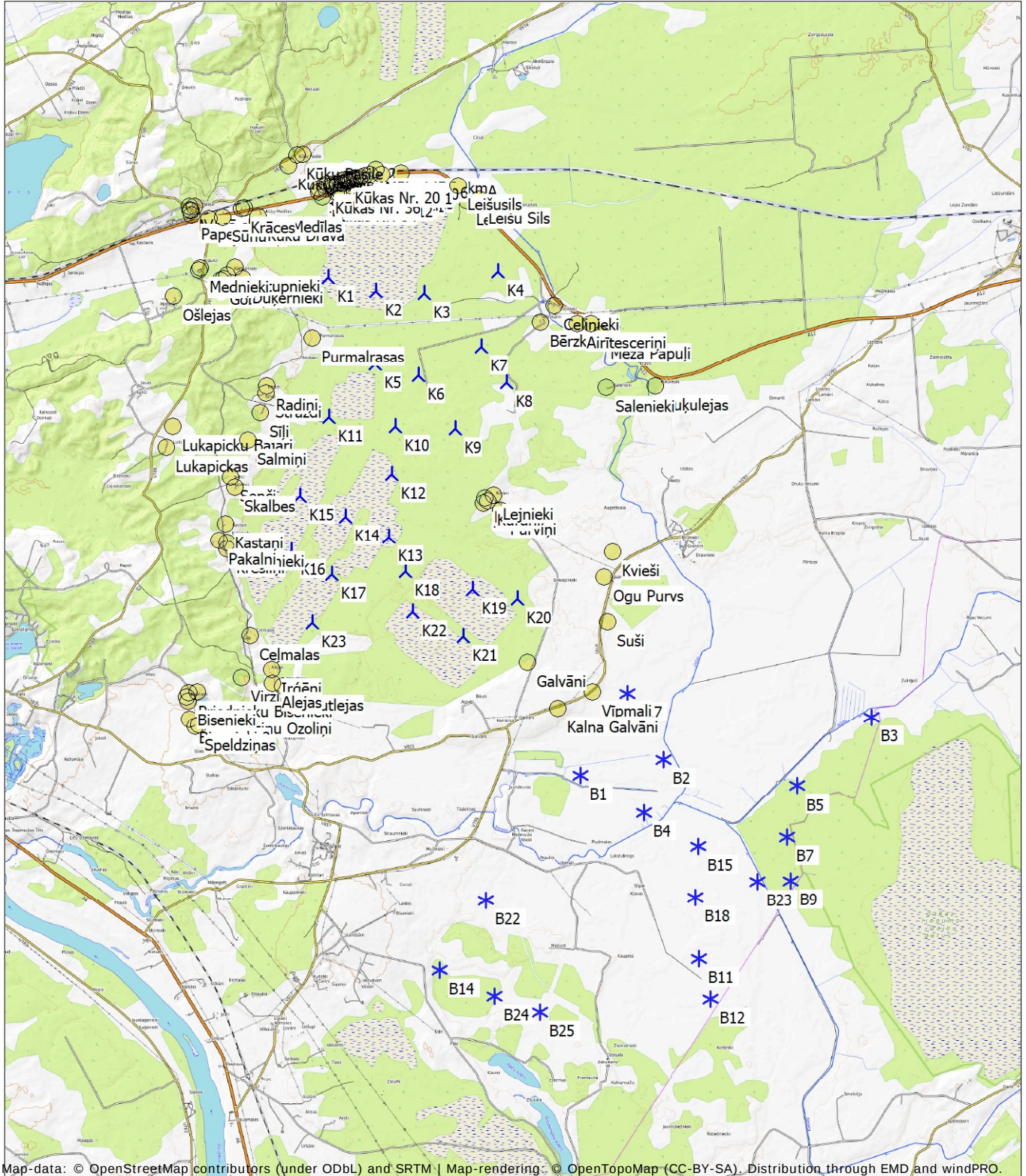
No.	Name	Worst case [h/year]	Expected [h/year]
11	K11	198:20	46:54
12	K12	44:11	13:44
13	K23	86:09	22:15
14	K4	162:56	26:02
15	K3	173:37	20:58
16	K15	251:55	56:36
17	K13	33:32	7:12
18	K16	147:08	28:56
19	K14	62:23	14:48
20	K6	12:18	2:32
21	K2	116:06	12:02
22	K7	82:52	18:22
23	K10	44:21	10:15
24	B1	103:54	7:02
25	B11	0:00	0:00
26	B12	0:00	0:00
27	B14	0:00	0:00
28	B15	0:00	0:00
29	B17	283:02	75:28
30	B18	0:00	0:00
31	B2	33:05	4:19
32	B22	0:00	0:00
33	B23	0:00	0:00
34	B24	0:00	0:00
35	B25	0:00	0:00
36	B3	0:00	0:00
37	B4	27:12	1:52
38	B5	0:00	0:00
39	B7	0:00	0:00
40	B9	0:00	0:00

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.

The calculation of the total expected values for a given receptor assumes a weighted average directional reduction for all WTGs contributing to shadow flicker within the same day. In the case where shadow flicker from different WTGs is not concurrent within the day, the total expected time at a given receptor may deviate marginally from the individual flicker time caused by each turbine separately.

SHADOW - Map

Calculation: Enercon E175H - Worst & Real Case CUMULATIVE



Map-data: © OpenStreetMap contributors (under ODbL) and SRTM | Map-rendering: © OpenTopoMap (CC-BY-SA). Distribution through EMD and windPRO.



New WTG

Map: OpenTopoMap, Print scale 1:75 000, Map center Geo WGS84 East: 26,134096° E North: 56,497182° N

Existing WTG

Shadow receptor

Flicker map level: DTM - Terrain model