

SHADOW - Main Result

Calculation: Enercon E175H - Real Case Curtailment 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
Flicker curtailment by stopping specific turbines

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:

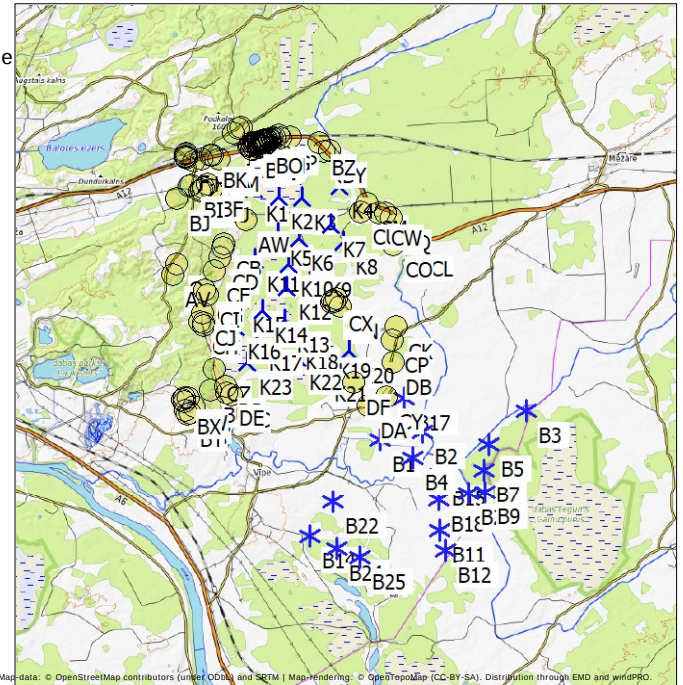
DHM: DTM - Terrain model
Receptor grid resolution: 1,0 m
Topographic shadow included in calculation

All coordinates are in
Geo [deg]-WGS84

WTGs

	Longitude	Latitude	Z	Row data/Description	WTG type			Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
					Valid	Manufact.	Type-generator				Calculation distance [m]	RPM [RPM]
			[m]									
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

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Calculation: Enercon E175H - Real Case Curtailment CUMULATIVE

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Row data/Description	Longitude	Latitude	Z [m]	WTG type Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Shadow data	
										Calculation distance [m]	RPM [RPM]
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
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	56,544498° 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

To be continued on next page...

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Calculation: Enercon E175H - Real Case Curtailment 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]
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
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	Speldzinas	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 - Real Case Curtailment CUMULATIVE

Calculation Results

Shadow receptor

No.	Name	Shadow, worst case			Avoided hours per year	Avoided days per year	Shadow, expected values	
		Shadow hours per year	Shadow days per year	Max shadow hours per day			Shadow hours per year	Avoided hours per year
		[h/year]	[days/year]	[h/day]	[h/year]	[days/year]	[h/year]	[h/year]
	A Mizuki	0:00	0	0:00			0:00	
	B Lejas Sunas	0:00	0	0:00			0:00	
	C Me ž sunas	0:00	0	0:00			0:00	
	D Veca skola	0:00	0	0:00			0:00	
	E Lejas Suni	0:00	0	0:00			0:00	
	F Papeles	0:00	0	0:00			0:00	
	G Vigriezes	0:00	0	0:00			0:00	
	H Sunu Medilas	11:21	35	0:26			1:48	
	I Kuku Pasile	9:30	33	0:21			0:33	
	J Kuku Pasile 2	0:00	0	0:00			0:00	
	K* Bambari	0:00	0	0:00	15:32	40	0:00	4:15
	L* Kukas Nr. 32	0:10	7	0:02	22:12	37	0:00	1:19
	M* Zeltinkukas	0:06	5	0:02	21:15	39	0:00	1:16
	N* Kukas Nr. 29	0:06	3	0:02	19:13	44	0:00	1:12
	O Lukapicku Bajari	0:00	0	0:00			0:00	
	P* Driksnas	0:00	0	0:00	24:25	44	0:00	1:28
	Q* Lei š u Sils	14:13	44	0:25	86:58	56	1:12	6:06
	R* Silmalas	0:34	16	0:04	14:03	23	0:08	3:57
	S* Purmalrasas 2	1:12	24	0:06	27:51	20	0:05	1:42
	T* Rozes	1:01	19	0:08	24:06	24	0:04	1:26
	U* Gobinas	1:03	24	0:04	12:44	14	0:17	3:37
	V Kukas Nr. 5A	26:24	74	0:26			1:50	
	W* Kukas Nr. 1	5:28	49	0:07	34:22		0:21	2:11
	X* Kaplica	13:06	41	0:23	20:42	10	0:49	1:20
	Y* Kukas Nr. 8	3:35	32	0:12	64:03	45	0:15	4:13
	Z* Kukas Nr. 22	0:00	0	0:00	19:19	40	0:00	1:08
	AA* Vasjkova nams	2:01	26	0:09	30:43	21	0:08	1:53
	AB* Kukas Nr. 7	5:42	50	0:17	61:18	24	0:24	3:59
	AC* Kukas Nr. 28	0:08	6	0:02	18:08	40	0:00	1:08
	AD* Kukas Nr. 2	10:10	52	0:13	32:18		0:40	2:04
	AE* Kukas Nr. 33	0:00	0	0:00	32:06	43	0:00	2:00
	AF* Kukas Nr. 24	1:05	17	0:05	16:06	26	0:03	0:59
	AG* Kukas Nr. 27	0:18	9	0:04	16:43	35	0:01	1:01
	AH* Kukas Nr. 10	8:01	70	0:13	59:30	11	0:35	3:57
	AI* Kukas Nr. 9	5:55	68	0:10	61:16	11	0:25	4:03
	AJ* Kukas Nr. 3	11:03	53	0:17	30:58		0:44	1:59
	AK* 1	1:27	54	0:02	55:17	13	0:05	3:43
	AL* 1	0:10	10	0:01	50:54	54	0:00	3:23
	AM* Kuku Drava	0:00	0	0:00	22:42	51	0:00	2:45
	AN* Kukas Nr. 17	0:00	0	0:00	28:37	41	0:00	1:46
	AO* Maja 145,3. km	0:36	11	0:07	18:25	39	0:02	1:11
	AP* Kukas Nr. 6	6:44	28	0:18	25:22	33	0:22	1:42
	AQ* Kukas Nr. 23	0:33	19	0:03	17:12	23	0:01	1:02
	AR* Kukas Nr. 15	9:20	49	0:12	27:51		0:36	1:45
	AS* Kukas Nr. 16	3:31	45	0:06	29:41		0:13	1:52
	AT* Kukas Nr. 31	6:30	50	0:19	59:50	23	0:28	3:52
	AU* Dukernieki	0:00	0	0:00	22:25	48	0:00	6:31
	AV Lukapickas	0:00	0	0:00			0:00	
	AW* Purmalrasas	32:38	90	0:29	92:32	149	6:30	16:06
	AX* Kukas 11	0:00	0	0:00	50:26	57	0:00	3:17
	AY* Kukas Nr. 4	9:57	49	0:16	24:32		0:39	1:32
	AZ* Kukas Nr. 34	0:00	0	0:00	68:36	72	0:00	4:41
	BA* Kuku Medilas	3:06	44	0:06	13:54	1	0:20	1:39
	BB* Kraukli	0:40	8	0:07	7:50	21	0:10	2:02
	BC* Kuku Balo ž i	6:45	54	0:16	55:36	15	0:27	3:36
	BD* Kukas Nr. 13	11:25	57	0:27	43:00		0:47	2:47
	BE* Kukas Nr. 12	5:06	57	0:16	47:37		0:21	3:06
	BF* Kartupnieki	0:00	0	0:00	17:38	41	0:00	4:36
	BG* Kukas Nr. 30	0:28	7	0:08	18:12	40	0:02	1:09
	BH* Zeltinkukas 1	2:26	28	0:08	18:48	18	0:08	1:09
	BI* Mednieki	0:52	12	0:07	8:03	18	0:13	2:04

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SHADOW - Main Result

Calculation: Enercon E175H - Real Case Curtailment CUMULATIVE

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No.	Name	Shadow, worst case			Avoided hours per year	Avoided days per year	Shadow, expected values	
		Shadow hours per year	Shadow days per year	Max shadow hours per day			Shadow hours per year	Avoided hours per year
		[h/year]	[days/year]	[h/day]	[h/year]	[days/year]	[h/year]	[h/year]
	BJ O š lejas	0:00	0	0:00			0:00	
	BK* Kraces	5:57	44	0:10	9:58		0:44	1:14
	BL* Kukas Nr. 5	9:58	55	0:13	30:35		0:39	1:57
	BM* Jani š i	0:50	20	0:05	21:38	19	0:03	1:17
	BN* Kukas Nr. 36	10:48	59	0:13	37:56		0:43	2:29
	BO* Kukas Nr. 20	0:24	14	0:03	19:44	25	0:01	1:10
	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 Speldzinu	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	23:34	73	0:23	59:38	6	1:38	4:02
	BZ* Lei š usils	13:11	39	0:25	37:14	33	0:48	2:33
	CA* Strazdi	27:42	81	0:28	32:55	57	5:18	7:28
	CB* Radini	20:03	64	0:28	31:55	56	4:45	6:23
	CC* Kreslini	25:12	74	0:29	76:33	135	6:42	20:13
	CD* Sili	14:43	46	0:26	69:55	129	4:43	11:47
	CE* Skujenieki	31:26	117	0:28	81:40	115	6:51	22:43
	CF* Salmini	22:32	73	0:25	64:29	91	2:01	12:38
	CG* Senci	9:54	33	0:25	86:16	187	1:58	18:38
	CH* Pakalni	23:21	103	0:28	82:40	133	5:49	22:32
	CI* Skalbē	25:59	88	0:27	82:37	118	7:15	14:45
	CJ* Kastani	22:12	67	0:26	68:57	124	5:04	19:40
	CK Kvie š i	13:52	37	0:29			2:29	
	CL Pukulejas	0:00	0	0:00			0:00	
	CM* Celinieki	9:37	32	0:24	100:18	197	2:48	18:16
	CN* Purvini	24:40	73	0:28	85:38	119	4:41	9:56
	CO* Salenieki	0:00	0	0:00	16:23	41	0:00	4:49
	CP* Ogu Purvs	0:00	0	0:00	19:49	54	0:00	4:32
	CQ* Me ž a Papuli	15:28	53	0:25	39:05	92	4:17	10:33
	CR* Noras	32:15	115	0:26	100:31	94	4:02	13:53
	CS* Me ž mali	5:52	43	0:18	94:25	174	1:50	14:50
	CT* Kurani	10:14	154	0:14	92:44	63	2:11	14:44
	CU* Berzkalni	12:59	39	0:26	97:21	165	3:56	13:08
	CV* Saulcerini	12:18	66	0:28	52:48	92	3:44	13:26
	CW* Airites	17:06	50	0:29	48:09	98	2:12	13:24
	CX* Lejnieki	19:27	115	0:25	78:06	112	5:54	12:32
	CY* Vipmali	10:45	37	0:22	226:57	231	0:39	60:05
	CZ* Celmalas	19:05	49	0:29	50:39	81	6:12	15:54
	DA* Kalna Galvani	28:16	93	0:26	114:16	147	3:17	21:43
	DB* Su š i	0:00	0	0:00	76:07	135	0:00	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	28:46	84	0:29	74:23	104	4:03	23:41

* Receptors where shadow flicker is reduced by curtailment

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

No.	Name	Worst case	Stopped due to flicker curtailment	Expected
		[h/year]	[h/year]	[h/year]
1	K20	16:30	93:58	2:40
2	K21	0:00	81:11	0:00
3	K19	0:56	80:26	0:04
4	K18	14:32	24:47	2:11
5	K22	24:53	15:56	1:41
6	K1	61:43	218:10	5:57
7	K8	17:06	121:13	2:12

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SHADOW - Main Result

Calculation: Enercon E175H - Real Case Curtailment CUMULATIVE

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No.	Name	Worst case [h/year]	Stopped due to flicker [h/year]	Expected [h/year]
8	K17	51:21	11:56	12:52
9	K5	38:11	32:04	11:54
10	K9	0:00		0:00
11	K11	14:41	183:39	4:46
12	K12	10:19	33:52	3:15
13	K23	19:41	66:28	4:40
14	K4	11:06	151:50	3:33
15	K3	85:34	88:03	10:52
16	K15	13:35	238:20	0:48
17	K13	11:18	22:14	2:38
18	K16	12:42	134:26	1:11
19	K14	62:23		14:48
20	K6	0:00	12:18	0:00
21	K2	53:47	62:19	7:58
22	K7	13:10	69:42	3:19
23	K10	35:15	9:06	7:17
24	B1	14:37	89:17	0:56
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	14:09	268:53	3:07
30	B18	0:00		0:00
31	B2	11:49	21:16	2:04
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 - Real Case Curtailment CUMULATIVE

