Project:
21095LS

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Calculated:
17-4-2024 10:51/3.5.587

SHADOW - Main Result

Calculation: slagschaduwduur nieuwe woningen

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

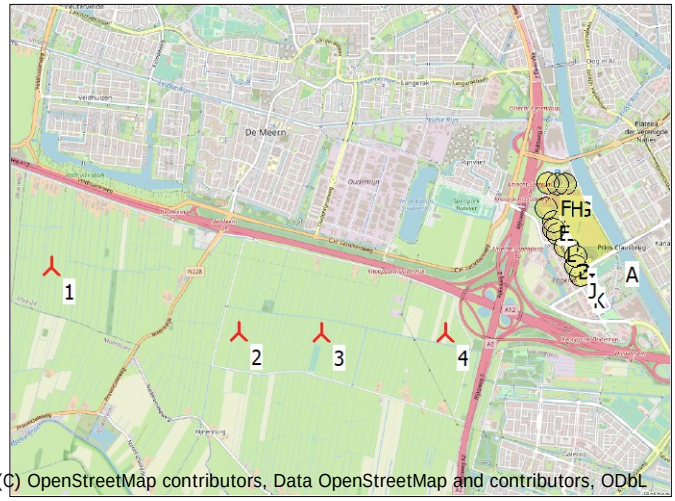
Sunshine probability S (Average daily sunshine hours) [DE BILT]

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1,48	2,65	3,60	5,24	6,59	6,28	6,20	6,12	4,48	3,32	1,87	1,32

Operational time

N	NNE	ENE	E	ESE	SSE	S	SSW	WSW	W	WNW	NNW	Sum
385	684	574	504	436	731	797	1.164	1.146	770	577	539	8.307

All coordinates are in
Dutch Stereo-RD/NAP 2008



Scale 1:75.000
New WTG
Shadow receptor

WTGs

	X (east)	Y (north)	Z	Row data/Description	WTG type Valid	Manufact.	Type-generator	Power, rated	Rotor diameter	Hub height	Shadow data Calculation distance	RPM
			[m]					[kW]	[m]	[m]	[m]	[RPM]
1	128.818	453.500	0,0	MH custom 6200 180.0 !O! hub: 180...	Yes		MH custom-6.200	6.200	180,0	180,0	2.036	8,8
2	130.666	452.840	0,0	MH custom 6200 180.0 !O! hub: 180...	Yes		MH custom-6.200	6.200	180,0	180,0	2.036	8,8
3	131.492	452.832	0,0	MH custom 6200 180.0 !O! hub: 180...	Yes		MH custom-6.200	6.200	180,0	180,0	2.036	8,8
4	132.735	452.817	0,0	MH custom 6200 180.0 !O! hub: 180...	Yes		MH custom-6.200	6.200	180,0	180,0	2.036	8,8

Shadow receptor-Input

No.	X (east)	Y (north)	Z		Width	Height	Elevation a.g.l.	Slope of window	Direction mode	Eye height (ZVI) a.g.l.
			[m]		[m]	[m]	[m]	[°]		[m]
A	134.064	454.026	0,0	#			1,0			1,0
B	133.920	453.670	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
C	133.847	453.801	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
D	133.819	453.927	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
E	133.737	454.068	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
F	133.756	454.310	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
G	133.923	454.293	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
H	133.854	454.300	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
I	134.024	453.582	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
J	134.024	453.482	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
K	134.076	453.387	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5
L	133.816	453.852	0,0		8,0	5,0	0,5	90,0	"Green house mode"	5,5

#) See details in: Detailed assumptions

Calculation Results

Shadow receptor

Shadow, expected values

No.	Shadow hours per year [h/year]
A	15:57
B	2:56
C	2:59
D	3:43
E	3:04
F	0:53
G	1:54
H	1:31
I	2:50

To be continued on next page...

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SHADOW - Main Result

Calculation: slagschaduwduur nieuwe woningen

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Shadow, expected values

No.	Shadow hours per year [h/year]
J	2:59
K	2:49
L	3:15

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

No.	Name	Expected [h/year]
1	MH custom 6200 180.0 !O! hub: 180,0 m (TOT: 270,0 m) (59)	0:00
2	MH custom 6200 180.0 !O! hub: 180,0 m (TOT: 270,0 m) (60)	0:00
3	MH custom 6200 180.0 !O! hub: 180,0 m (TOT: 270,0 m) (61)	0:00
4	MH custom 6200 180.0 !O! hub: 180,0 m (TOT: 270,0 m) (62)	18:28

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.