

PARK - Main Result

Calculation: Alternatief 3

Setup

AEP assuming long term representative time series data with optional corrections

Calculation performed in UTM (north)-WGS84 Zone: 31
At the site centre the difference between grid north and true north is: 2.1°

Wake

Wake Model: N.O. Jensen (EMD) : 2005
Include mirror wakes
Wake decay constant
Wake decay constant: 0.054 HH:100m Very open farmland

Use Downwind change of WDC by number of wake turbines. $y = A \cdot \ln(x) + B$
Model A B Max x
2 -0.3000 1.4000 5

Combination model

Weighted linear and RSS
Linear weight RSS weight
0.35 0.65

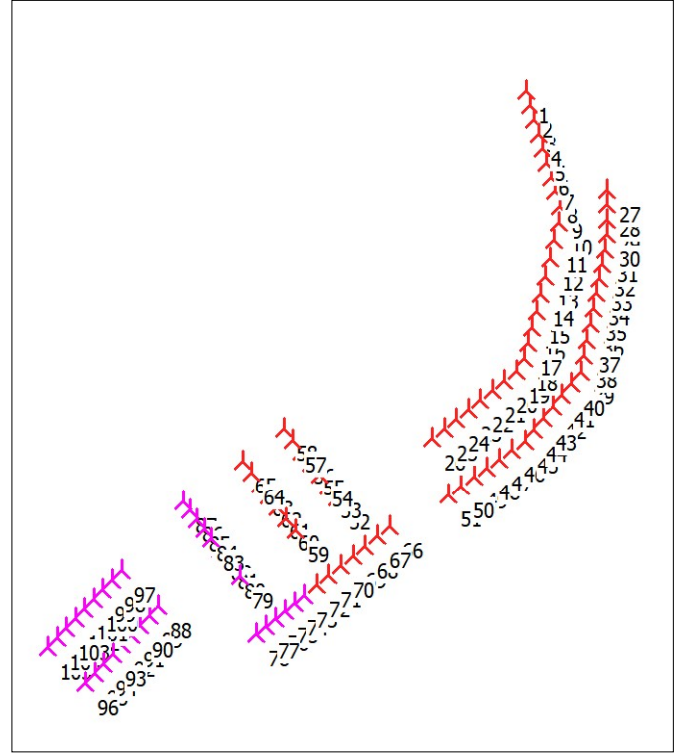
Scaler/wind data

Name EMD Scaler WKG
Used period 31/01/1993 05:00:00 - 31/01/2017 04:00:00
Meteo object(s) EmdConwx_N52.400_E005.540 (Pijlstaartweg)
EmdConwx_N52.430_E005.660 (Kokkeltocht)
EmdConwx_N52.460_E005.660 (Kubbeweg)
EmdConwx_N52.490_E005.750 (Hoge Vaart)
EmdConwx_N52.520_E005.780 (Hondtocht)
Take nearest
Horizontal interpolation
Displacement height: Omnidirectional from objects
WASP version WASP 11 Version 11.04.0006

Power correction

Power curve correction (adjusted IEC method, improved to match turbine control)

	Min	Max	Avg	Corr. [%]	Neg. corr. [%]	Pos. corr. [%]
Air density						
From scaler meteo objects [°C]	-14.2	32.6	9.8			
From air density settings						
Resulting air density [kg/m³]	1.135	1.345	1.228			
Relative to 15°C at sea level [%]	92.6	109.8	100.2	100.0	100.0	100.0



Scale 1:250,000

New WTG

Calculated Annual Energy for Wind Farm

WTG combination	Result PARK [MWh/y]	GROSS (no loss) Free WTGs [MWh/y]	Wake loss [%]	Specific results ^{a)}			Wind speed	
				Capacity factor [%]	Mean WTG result [MWh/y]	Full load hours [Hours/year]	free [m/s]	wake reduced [m/s]
Wind farm	1,396,877.1	1,543,287.4	9.5	40.4	13,303.6	3,540	7.6	7.2

^{a)} Based on wake reduced results, but no other losses included

Calculated Annual Energy for each of 105 new WTGs with total 394.6 MW rated power

WTG type	Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Power curve Creator	Name	Annual Energy	Wind speed	free [m/s]	reduced [m/s]
									Result [MWh/y]	Wake loss [%]		
1 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	16,120.4	2.7	7.99	7.86	
2 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,779.6	4.2	7.96	7.75	
3 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,638.5	4.7	7.94	7.71	
4 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,498.8	5.0	7.91	7.67	
5 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,396.6	5.3	7.89	7.63	
6 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,348.4	5.6	7.89	7.62	
7 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,229.7	5.9	7.87	7.58	
8 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,140.7	6.3	7.86	7.56	
9 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,014.5	6.9	7.86	7.53	
10 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,971.3	7.2	7.86	7.52	
11 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,947.0	7.0	7.84	7.52	
12 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,956.4	7.0	7.85	7.52	
13 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,949.2	7.0	7.85	7.52	
14 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,928.2	7.2	7.85	7.52	
15 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,833.9	7.6	7.84	7.49	
16 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,772.2	8.1	7.85	7.47	
17 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,685.9	8.8	7.86	7.44	
18 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,436.0	10.3	7.86	7.38	
19 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,158.8	11.9	7.85	7.31	
20 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,121.2	12.2	7.85	7.31	
21 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,136.4	12.0	7.85	7.31	
22 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,182.8	11.7	7.85	7.33	
23 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,256.6	11.2	7.85	7.35	

To be continued on next page...

PARK - Main Result

Calculation: Alternatief 3

...continued from previous page

WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Power curve		Annual Energy Result [MWh/y]	Wake loss [%]	Wind speed		
Valid	Manufact.					Creator	Name			free [m/s]	reduced [m/s]	
24	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,396.5	10.5	7.86	7.39
25	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,590.6	9.2	7.85	7.44
26	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,088.3	5.8	7.83	7.57
27	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,152.2	6.9	7.90	7.59
28	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,975.0	8.0	7.91	7.53
29	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,893.9	8.3	7.90	7.51
30	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,808.5	8.7	7.89	7.48
31	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,745.8	9.0	7.89	7.47
32	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,740.7	9.1	7.90	7.47
33	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,739.9	9.2	7.90	7.47
34	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,719.1	9.0	7.88	7.46
35	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,772.1	8.8	7.89	7.48
36	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,785.8	8.7	7.89	7.48
37	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,774.1	8.7	7.88	7.48
38	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,695.9	8.9	7.87	7.45
39	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,349.1	11.1	7.87	7.36
40	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,256.0	11.6	7.87	7.34
41	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,259.3	11.6	7.87	7.34
42	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,278.8	11.4	7.86	7.34
43	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,331.7	11.1	7.87	7.36
44	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,387.4	10.9	7.87	7.38
45	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,298.5	11.4	7.88	7.36
46	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,291.3	11.6	7.89	7.36
47	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,324.9	11.5	7.89	7.38
48	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,378.2	11.2	7.89	7.39
49	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,479.1	10.6	7.90	7.42
50	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,707.9	9.3	7.91	7.49
51	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,296.0	5.8	7.92	7.66
52	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,773.5	8.4	7.88	7.49
53	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,604.3	9.5	7.88	7.43
54	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,629.3	9.5	7.89	7.44
55	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,637.4	9.3	7.88	7.44
56	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,706.5	8.9	7.88	7.46
57	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,857.2	8.0	7.88	7.50
58	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,222.6	5.6	7.87	7.61
59	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,873.2	8.0	7.88	7.51
60	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,663.4	9.0	7.87	7.44
61	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,701.9	9.1	7.89	7.45
62	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,689.7	9.1	7.89	7.45
63	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,724.6	8.8	7.88	7.46
64	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,806.6	8.0	7.86	7.48
65	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	15,188.4	5.7	7.87	7.59
66	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,601.1	10.0	7.92	7.47
67	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,448.8	11.0	7.92	7.42
68	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,410.2	11.3	7.92	7.41
69	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,412.9	11.2	7.91	7.41
70	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,471.3	11.0	7.92	7.42
71	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,559.1	10.4	7.92	7.44
72	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	160.0	USER	Medium TI band Power Curve - 3830	14,921.5	8.1	7.92	7.54
73	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,008.4	14.4	7.08	6.57
74	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,922.6	14.7	7.05	6.54
75	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,010.5	14.1	7.06	6.57
76	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,078.8	13.3	7.05	6.59
77	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,228.7	11.7	7.04	6.64
78	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,988.7	5.0	7.04	6.84
79	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,456.6	9.2	7.03	6.69
80	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,295.7	10.8	7.03	6.64
81	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,210.6	11.1	7.02	6.61
82	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,202.8	10.9	7.01	6.61
83	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,170.8	11.0	7.00	6.60
84	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,161.3	11.0	7.00	6.60
85	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,158.9	10.6	6.98	6.60
86	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,260.2	9.6	6.98	6.64
87	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,523.8	6.5	6.95	6.73
88	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,908.4	13.9	7.03	6.58
89	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,746.8	15.0	7.01	6.52
90	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,821.4	14.7	7.03	6.54
91	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,831.3	14.4	7.02	6.53
92	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,950.9	13.7	7.04	6.57
93	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,999.7	13.0	7.02	6.59
94	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,162.6	11.8	7.03	6.64
95	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,338.5	9.9	7.02	6.69
96	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	11,028.9	3.8	7.01	6.87
97	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,900.2	13.1	6.99	6.58
98	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,838.3	14.1	7.01	6.55
99	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,817.0	14.1	7.00	6.54

To be continued on next page...

PARK - Main Result

Calculation: Alternatief 3

...continued from previous page

WTG type	Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Power curve Creator	Name	Annual Energy	Wind speed		
									Result [MWh/y]	Wake loss [%]	free [m/s]	reduced [m/s]
100	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,843.9	13.9	7.01	6.55
101	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,889.5	13.5	7.01	6.56
102	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,958.3	13.0	7.01	6.58
103	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,081.8	12.0	7.01	6.62
104	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,226.6	10.3	7.00	6.66
105	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	97.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,937.7	4.2	7.00	6.85

Annual Energy results do not include any losses apart from wake losses. Additional losses and uncertainty must be considered for an investment decision.

WTG siting

Dutch Stereo-RD/NAP 2008

	X (east)	Y (north)	Z [m]	Row data/Description	Calculation period	
					Start	End
1 New	180,318.0	509,223.0	-4.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6183)	31/01/1993	31/01/2017
2 New	180,458.0	508,751.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6184)	31/01/1993	31/01/2017
3 New	180,598.0	508,280.0	-4.3	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6185)	31/01/1993	31/01/2017
4 New	180,738.0	507,808.0	-4.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6186)	31/01/1993	31/01/2017
5 New	180,878.0	507,337.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6187)	31/01/1993	31/01/2017
6 New	181,018.0	506,865.0	-4.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6188)	31/01/1993	31/01/2017
7 New	181,158.0	506,393.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6189)	31/01/1993	31/01/2017
8 New	181,299.0	505,922.0	-5.7	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6190)	31/01/1993	31/01/2017
9 New	181,447.0	505,422.0	-6.5	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6191)	31/01/1993	31/01/2017
10 New	181,432.0	504,870.0	-4.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6192)	31/01/1993	31/01/2017
11 New	181,291.0	504,305.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6193)	31/01/1993	31/01/2017
12 New	181,143.0	503,712.0	-5.7	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6194)	31/01/1993	31/01/2017
13 New	180,994.0	503,118.0	-5.4	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6195)	31/01/1993	31/01/2017
14 New	180,846.0	502,524.0	-5.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6196)	31/01/1993	31/01/2017
15 New	180,704.0	501,956.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6197)	31/01/1993	31/01/2017
16 New	180,568.0	501,412.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6198)	31/01/1993	31/01/2017
17 New	180,438.0	500,893.0	-4.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6199)	31/01/1993	31/01/2017
18 New	180,314.0	500,398.0	-5.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6200)	31/01/1993	31/01/2017
19 New	180,038.0	499,969.0	-5.5	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6201)	31/01/1993	31/01/2017
20 New	179,640.0	499,651.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6202)	31/01/1993	31/01/2017
21 New	179,242.0	499,332.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6203)	31/01/1993	31/01/2017
22 New	178,844.0	499,013.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6204)	31/01/1993	31/01/2017
23 New	178,446.0	498,694.0	-5.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6205)	31/01/1993	31/01/2017
24 New	178,048.0	498,376.0	-4.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6206)	31/01/1993	31/01/2017
25 New	177,650.0	498,057.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6207)	31/01/1993	31/01/2017
26 New	177,252.0	497,738.0	-5.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6208)	31/01/1993	31/01/2017
27 New	183,025.0	505,975.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6209)	31/01/1993	31/01/2017
28 New	183,027.0	505,485.0	-4.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6210)	31/01/1993	31/01/2017
29 New	183,028.0	504,995.0	-5.4	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6211)	31/01/1993	31/01/2017
30 New	183,030.0	504,505.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6212)	31/01/1993	31/01/2017
31 New	182,978.0	504,018.0	-5.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6213)	31/01/1993	31/01/2017
32 New	182,884.0	503,537.0	-4.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6214)	31/01/1993	31/01/2017
33 New	182,791.0	503,056.0	-3.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6215)	31/01/1993	31/01/2017
34 New	182,697.0	502,575.0	-4.3	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6216)	31/01/1993	31/01/2017
35 New	182,599.0	502,070.0	-4.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6217)	31/01/1993	31/01/2017
36 New	182,497.0	501,544.0	-3.3	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6218)	31/01/1993	31/01/2017
37 New	182,395.0	501,018.0	-4.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6219)	31/01/1993	31/01/2017
38 New	182,292.0	500,492.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6220)	31/01/1993	31/01/2017
39 New	182,190.0	499,966.0	-4.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6221)	31/01/1993	31/01/2017
40 New	181,881.0	499,582.0	-4.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6222)	31/01/1993	31/01/2017
41 New	181,573.0	499,198.0	-4.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6223)	31/01/1993	31/01/2017
42 New	181,264.0	498,815.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6224)	31/01/1993	31/01/2017
43 New	180,956.0	498,431.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6225)	31/01/1993	31/01/2017
44 New	180,647.0	498,047.0	-4.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6226)	31/01/1993	31/01/2017
45 New	180,339.0	497,663.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6227)	31/01/1993	31/01/2017
46 New	179,917.0	497,364.0	-4.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6228)	31/01/1993	31/01/2017
47 New	179,495.0	497,065.0	-5.2	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6229)	31/01/1993	31/01/2017
48 New	179,073.0	496,767.0	-5.7	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6230)	31/01/1993	31/01/2017
49 New	178,651.0	496,468.0	-5.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6231)	31/01/1993	31/01/2017
50 New	178,229.0	496,169.0	-4.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6232)	31/01/1993	31/01/2017

To be continued on next page...

PARK - Main Result

Calculation: Alternatief 3

...continued from previous page

		Dutch Stereo-RD/NAP 2008				Calculation period	
		X (east)	Y (north)	Z [m]	Row data/Description	Start	End
51	New	177,807.0	495,871.0	-5.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6233)	31/01/1993	31/01/2017
52	New	174,097.0	495,754.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6234)	31/01/1993	31/01/2017
53	New	173,803.0	496,133.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6235)	31/01/1993	31/01/2017
54	New	173,508.0	496,512.0	-4.4	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6236)	31/01/1993	31/01/2017
55	New	173,214.0	496,891.0	-6.3	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6237)	31/01/1993	31/01/2017
56	New	172,920.0	497,270.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6238)	31/01/1993	31/01/2017
57	New	172,625.0	497,650.0	-4.4	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6239)	31/01/1993	31/01/2017
58	New	172,331.0	498,029.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6240)	31/01/1993	31/01/2017
59	New	172,711.0	494,676.0	-5.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6241)	31/01/1993	31/01/2017
60	New	172,417.0	495,056.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6242)	31/01/1993	31/01/2017
61	New	172,123.0	495,435.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6243)	31/01/1993	31/01/2017
62	New	171,829.0	495,814.0	-5.7	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6244)	31/01/1993	31/01/2017
63	New	171,534.0	496,193.0	-5.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6245)	31/01/1993	31/01/2017
64	New	171,240.0	496,573.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6246)	31/01/1993	31/01/2017
65	New	170,946.0	496,952.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6247)	31/01/1993	31/01/2017
66	New	175,861.0	494,803.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6248)	31/01/1993	31/01/2017
67	New	175,458.0	494,479.0	-5.4	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6249)	31/01/1993	31/01/2017
68	New	175,041.0	494,144.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6250)	31/01/1993	31/01/2017
69	New	174,638.0	493,821.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6251)	31/01/1993	31/01/2017
70	New	174,235.0	493,497.0	-4.2	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6252)	31/01/1993	31/01/2017
71	New	173,831.0	493,174.0	-4.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6253)	31/01/1993	31/01/2017
72	New	173,428.0	492,851.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 160,0 m (TOT: 225,0 m) (6254)	31/01/1993	31/01/2017
73	New	173,025.0	492,527.0	-5.9	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6255)	31/01/1993	31/01/2017
74	New	172,702.0	492,269.0	-5.6	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6256)	31/01/1993	31/01/2017
75	New	172,380.0	492,011.0	-4.4	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6257)	31/01/1993	31/01/2017
76	New	172,057.0	491,753.0	-4.2	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6258)	31/01/1993	31/01/2017
77	New	171,735.0	491,495.0	-5.3	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6259)	31/01/1993	31/01/2017
78	New	171,413.0	491,237.0	-4.7	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6260)	31/01/1993	31/01/2017
79	New	170,862.0	493,145.0	-5.6	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6261)	31/01/1993	31/01/2017
80	New	170,625.0	493,455.0	-4.6	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6262)	31/01/1993	31/01/2017
81	New	170,389.0	493,765.0	-6.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6263)	31/01/1993	31/01/2017
82	New	170,153.0	494,076.0	-5.3	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6264)	31/01/1993	31/01/2017
83	New	169,917.0	494,386.0	-5.9	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6265)	31/01/1993	31/01/2017
84	New	169,678.0	494,697.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6266)	31/01/1993	31/01/2017
85	New	169,442.0	495,008.0	-6.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6267)	31/01/1993	31/01/2017
86	New	169,206.0	495,318.0	-5.1	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6268)	31/01/1993	31/01/2017
87	New	168,970.0	495,629.0	-6.6	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6269)	31/01/1993	31/01/2017
88	New	168,162.0	492,154.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6270)	31/01/1993	31/01/2017
89	New	167,858.0	491,833.0	-6.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6271)	31/01/1993	31/01/2017
90	New	167,554.0	491,512.0	-5.1	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6272)	31/01/1993	31/01/2017
91	New	167,250.0	491,191.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6273)	31/01/1993	31/01/2017
92	New	166,946.0	490,870.0	-5.9	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6274)	31/01/1993	31/01/2017
93	New	166,642.0	490,549.0	-6.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6275)	31/01/1993	31/01/2017
94	New	166,338.0	490,229.0	-5.3	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6276)	31/01/1993	31/01/2017
95	New	166,034.0	489,908.0	-5.9	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6277)	31/01/1993	31/01/2017
96	New	165,730.0	489,587.0	-5.7	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6278)	31/01/1993	31/01/2017
97	New	166,921.0	493,323.0	-6.3	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6280)	31/01/1993	31/01/2017
98	New	166,616.0	493,003.0	-4.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6281)	31/01/1993	31/01/2017
99	New	166,312.0	492,683.0	-5.6	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6282)	31/01/1993	31/01/2017
100	New	166,007.0	492,362.0	-5.8	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6283)	31/01/1993	31/01/2017
101	New	165,703.0	492,042.0	-5.1	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6284)	31/01/1993	31/01/2017
102	New	165,398.0	491,722.0	-6.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6285)	31/01/1993	31/01/2017
103	New	165,094.0	491,402.0	-4.3	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6286)	31/01/1993	31/01/2017
104	New	164,789.0	491,082.0	-6.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6287)	31/01/1993	31/01/2017
105	New	164,485.0	490,762.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 97,5 m (TOT: 156,0 m) (6288)	31/01/1993	31/01/2017