

PARK - Main Result

Calculation: Alternatief 2

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

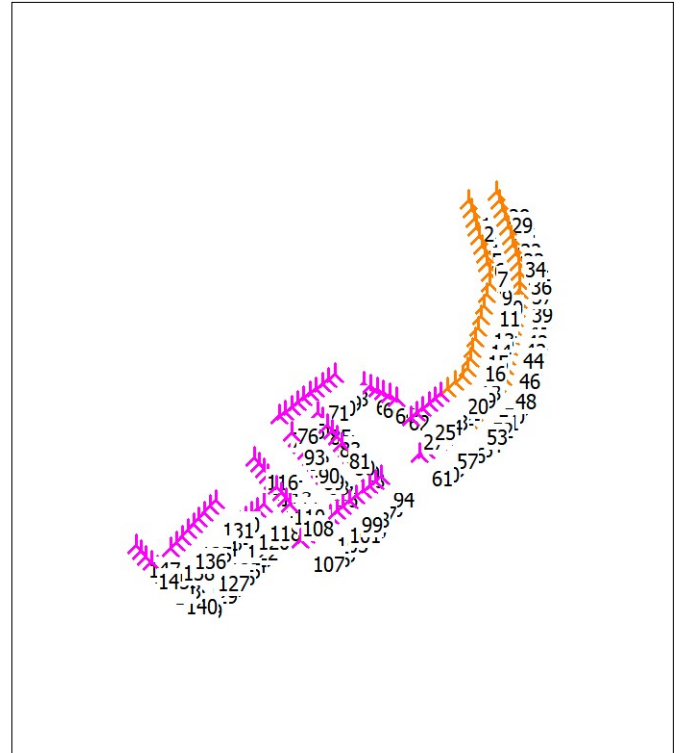
Horizontal interpolation

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]	-13.9	32.9	10.1			
From air density settings						
Resulting air density [kg/m³]	1.139	1.346	1.233			
Relative to 15°C at sea level [%]	93.0	109.9	100.6	100.0	100.0	100.0



Scale 1:400,000

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	1,561,635.6	1,800,080.5	13.2	32.9	10,623.4	2,888	7.1	6.6

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

Calculated Annual Energy for each of 147 new WTGs with total 540.7 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	
									Result [MWh/y]	Wake loss [%]	free [m/s]	reduced [m/s]
1 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	14,215.5	4.9	7.50	7.30	
2 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,803.0	6.8	7.46	7.17	
3 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,618.1	7.6	7.43	7.12	
4 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,418.9	8.1	7.40	7.06	
5 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,286.9	8.5	7.37	7.03	
6 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,232.3	8.8	7.37	7.01	
7 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,068.2	9.1	7.33	6.96	
8 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,000.6	9.4	7.32	6.94	
9 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,914.1	9.8	7.32	6.92	
10 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,955.9	9.8	7.33	6.94	
11 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,935.1	9.7	7.32	6.93	
12 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,941.5	9.6	7.32	6.94	
13 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,965.5	9.6	7.33	6.95	
14 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,924.5	10.0	7.33	6.94	
15 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,803.3	10.6	7.32	6.90	
16 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,738.0	11.2	7.33	6.89	
17 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,644.7	12.2	7.35	6.86	
18 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,417.4	13.8	7.35	6.80	
19 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,237.4	14.9	7.34	6.75	
20 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,172.0	15.3	7.34	6.74	
21 No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,241.8	14.7	7.34	6.76	
22 Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	8,817.6	19.4	6.86	6.22	
23 Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	8,801.6	19.4	6.86	6.22	

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PARK - Main Result

Calculation: Alternatief 2

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WTG type	Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Power curve		Annual Energy Result [MWh/y]	Wake loss [%]	Wind speed	
							Creator	Name			free [m/s]	reduced [m/s]
24	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	8,864.9	19.2	6.87	6.24
25	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	8,949.2	18.4	6.87	6.27
26	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,046.2	17.3	6.86	6.30
27	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,580.8	11.4	6.83	6.45
28	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	14,129.4	6.6	7.55	7.28
29	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,667.1	8.7	7.51	7.15
30	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,403.0	9.6	7.47	7.07
31	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,245.1	10.2	7.44	7.03
32	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	13,094.6	10.6	7.41	6.98
33	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,897.4	11.1	7.37	6.93
34	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,919.8	11.2	7.39	6.93
35	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,923.7	11.3	7.39	6.93
36	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,916.5	11.3	7.39	6.93
37	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,923.4	11.1	7.38	6.93
38	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,893.7	11.0	7.37	6.92
39	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,838.3	11.3	7.37	6.91
40	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,732.7	11.7	7.35	6.88
41	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,831.9	11.7	7.38	6.91
42	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,836.5	11.7	7.39	6.91
43	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,823.5	11.5	7.37	6.91
44	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,900.7	11.1	7.38	6.93
45	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,944.4	11.0	7.39	6.94
46	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,916.9	11.0	7.38	6.93
47	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,798.5	11.5	7.37	6.90
48	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,511.5	13.7	7.37	6.82
49	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,389.9	14.5	7.37	6.79
50	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,407.0	14.5	7.38	6.80
51	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,422.0	14.2	7.37	6.80
52	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,460.9	13.9	7.37	6.82
53	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,516.4	13.5	7.37	6.83
54	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,521.7	13.3	7.36	6.83
55	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,498.3	13.6	7.37	6.82
56	No	GE WIND ENERGY	GE 3.8-130-3,830	3,830	130.0	120.0	USER	Medium TI band Power Curve - 3830	12,628.1	12.6	7.36	6.86
57	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,076.9	17.2	6.87	6.29
58	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,085.9	17.2	6.88	6.29
59	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,126.5	16.7	6.87	6.31
60	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,285.1	15.4	6.88	6.36
61	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,088.9	8.9	6.91	6.60
62	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,419.0	13.7	6.86	6.41
63	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,390.3	15.1	6.90	6.40
64	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,339.1	15.2	6.89	6.38
65	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,372.6	15.1	6.90	6.40
66	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,415.9	14.8	6.90	6.42
67	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,650.9	12.3	6.89	6.50
68	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,221.9	16.5	6.90	6.38
69	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	8,940.3	18.7	6.88	6.28
70	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,008.9	18.7	6.91	6.30
71	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	8,986.9	18.7	6.90	6.29
72	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,030.0	18.5	6.91	6.30
73	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,083.8	18.0	6.91	6.32
74	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,067.0	18.0	6.90	6.32
75	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,110.7	17.4	6.89	6.34
76	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,337.3	15.6	6.91	6.41
77	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,023.1	8.7	6.88	6.59
78	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,565.9	13.7	6.91	6.46
79	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,331.9	15.8	6.91	6.39
80	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,262.5	16.3	6.91	6.36
81	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,331.5	16.4	6.94	6.39
82	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,249.1	16.5	6.91	6.36
83	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,312.5	16.5	6.93	6.39
84	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,324.0	16.1	6.92	6.39
85	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,536.7	14.2	6.92	6.47
86	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,669.7	13.2	6.92	6.48
87	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,408.4	15.1	6.91	6.40
88	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,428.6	15.4	6.93	6.41
89	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,403.0	15.6	6.93	6.40
90	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,391.9	15.7	6.93	6.40
91	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,420.5	15.5	6.93	6.41
92	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,407.3	14.9	6.90	6.41
93	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,720.7	12.2	6.91	6.52
94	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,413.1	15.7	6.93	6.42
95	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,345.8	16.7	6.95	6.38
96	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,393.7	16.4	6.95	6.39
97	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,412.6	16.1	6.95	6.40
98	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,534.5	15.8	6.98	6.44
99	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,560.7	15.9	6.99	6.44

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PARK - Main Result

Calculation: Alternatief 2

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WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Power curve Creator	Name	Annual Energy Result [MWh/y]	Wake loss [%]	Wind speed		
Valid	Manufact.									free [m/s]	reduced [m/s]	
100	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,547.5	16.1	6.99	6.44
101	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,510.5	16.4	6.99	6.42
102	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,494.9	16.2	6.97	6.41
103	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,462.8	15.9	6.95	6.41
104	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,541.6	15.4	6.96	6.43
105	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,595.1	14.5	6.94	6.45
106	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,724.7	13.0	6.93	6.49
107	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,454.3	6.3	6.93	6.69
108	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,800.6	12.0	6.92	6.51
109	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,559.0	14.4	6.93	6.44
110	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,437.4	15.0	6.91	6.40
111	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,388.8	15.3	6.91	6.39
112	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,429.9	14.6	6.89	6.40
113	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,476.2	14.1	6.89	6.42
114	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,502.4	13.4	6.87	6.43
115	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,612.4	12.1	6.86	6.46
116	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,873.6	8.9	6.83	6.55
117	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,113.7	17.9	6.91	6.32
118	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,059.6	18.4	6.91	6.29
119	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,150.9	18.0	6.94	6.33
120	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,060.0	17.9	6.90	6.29
121	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,229.3	17.1	6.93	6.36
122	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,216.7	16.8	6.91	6.35
123	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,301.5	16.5	6.93	6.38
124	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,298.0	16.3	6.92	6.38
125	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,372.9	16.0	6.93	6.40
126	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,375.2	15.7	6.92	6.40
127	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,479.2	15.0	6.93	6.44
128	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,556.0	13.9	6.92	6.46
129	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,076.2	9.1	6.91	6.61
130	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,302.5	15.5	6.89	6.41
131	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,245.1	16.6	6.91	6.38
132	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,207.5	16.7	6.90	6.37
133	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,223.6	16.6	6.91	6.37
134	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,226.3	16.6	6.91	6.37
135	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,239.4	16.5	6.91	6.38
136	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,288.0	16.1	6.91	6.40
137	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,322.1	15.4	6.89	6.41
138	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,799.2	11.2	6.90	6.54
139	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,422.1	5.7	6.90	6.68
140	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,160.5	7.9	6.90	6.61
141	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,085.8	8.5	6.90	6.58
142	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,037.5	8.6	6.89	6.57
143	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,062.0	8.5	6.89	6.58
144	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,040.8	8.4	6.88	6.57
145	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,029.7	8.4	6.87	6.57
146	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	9,984.0	7.9	6.84	6.57
147	Yes	VESTAS	V117-3.6-3,600	3,600	117.0	91.5	EMD	Level 0 - Calculated - Modes PO1 & PO1-OS - 01-2016	10,184.9	5.1	6.81	6.64

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				Row data/Description	Calculation period	
	X (east)	Y (north)	Z [m]	Start		End	
1 New	180,318.0	509,223.0	-4.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (5985)	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: 120,0 m (TOT: 185,0 m) (5986)	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: 120,0 m (TOT: 185,0 m) (5987)	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: 120,0 m (TOT: 185,0 m) (5988)	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: 120,0 m (TOT: 185,0 m) (5989)	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: 120,0 m (TOT: 185,0 m) (5990)	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: 120,0 m (TOT: 185,0 m) (5991)	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: 120,0 m (TOT: 185,0 m) (5992)	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: 120,0 m (TOT: 185,0 m) (5993)	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: 120,0 m (TOT: 185,0 m) (5994)	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: 120,0 m (TOT: 185,0 m) (5995)	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: 120,0 m (TOT: 185,0 m) (5996)	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: 120,0 m (TOT: 185,0 m) (5997)	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: 120,0 m (TOT: 185,0 m) (5998)	31/01/1993	31/01/2017	

To be continued on next page...

PARK - Main Result

Calculation: Alternatief 2

...continued from previous page

Dutch Stereo-RD/NAP 2008				Calculation period		
	X (east)	Y (north)	Z	Row data/Description	Start	End
	[m]					
15 New	180,704.0	501,956.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (5999)	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: 120,0 m (TOT: 185,0 m) (6000)	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: 120,0 m (TOT: 185,0 m) (6001)	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: 120,0 m (TOT: 185,0 m) (6002)	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: 120,0 m (TOT: 185,0 m) (6003)	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: 120,0 m (TOT: 185,0 m) (6004)	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: 120,0 m (TOT: 185,0 m) (6005)	31/01/1993	31/01/2017
22 New	178,885.0	499,060.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6006)	31/01/1993	31/01/2017
23 New	178,562.0	498,806.0	-7.4	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6007)	31/01/1993	31/01/2017
24 New	178,240.0	498,552.0	-5.1	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6008)	31/01/1993	31/01/2017
25 New	177,918.0	498,299.0	-4.1	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6009)	31/01/1993	31/01/2017
26 New	177,596.0	498,045.0	-5.5	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6010)	31/01/1993	31/01/2017
27 New	177,274.0	497,792.0	-7.4	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6011)	31/01/1993	31/01/2017
28 New	181,793.0	509,714.0	-3.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6012)	31/01/1993	31/01/2017
29 New	181,946.0	509,248.0	-4.4	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6013)	31/01/1993	31/01/2017
30 New	182,099.0	508,783.0	-4.2	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6014)	31/01/1993	31/01/2017
31 New	182,252.0	508,317.0	-3.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6015)	31/01/1993	31/01/2017
32 New	182,391.0	507,847.0	-3.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6016)	31/01/1993	31/01/2017
33 New	182,531.0	507,378.0	-5.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6017)	31/01/1993	31/01/2017
34 New	182,670.0	506,908.0	-3.7	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6018)	31/01/1993	31/01/2017
35 New	182,809.0	506,438.0	-3.5	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6019)	31/01/1993	31/01/2017
36 New	182,950.0	505,969.0	-4.3	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6020)	31/01/1993	31/01/2017
37 New	183,027.0	505,485.0	-4.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6021)	31/01/1993	31/01/2017
38 New	183,028.0	504,995.0	-5.4	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6022)	31/01/1993	31/01/2017
39 New	183,030.0	504,505.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6023)	31/01/1993	31/01/2017
40 New	182,978.0	504,018.0	-5.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6024)	31/01/1993	31/01/2017
41 New	182,884.0	503,537.0	-4.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6025)	31/01/1993	31/01/2017
42 New	182,791.0	503,056.0	-3.9	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6026)	31/01/1993	31/01/2017
43 New	182,697.0	502,575.0	-4.3	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6027)	31/01/1993	31/01/2017
44 New	182,599.0	502,070.0	-4.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6028)	31/01/1993	31/01/2017
45 New	182,497.0	501,544.0	-3.3	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6029)	31/01/1993	31/01/2017
46 New	182,395.0	501,018.0	-4.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6030)	31/01/1993	31/01/2017
47 New	182,292.0	500,492.0	-6.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6031)	31/01/1993	31/01/2017
48 New	182,190.0	499,966.0	-4.8	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6032)	31/01/1993	31/01/2017
49 New	181,881.0	499,582.0	-4.1	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6033)	31/01/1993	31/01/2017
50 New	181,573.0	499,198.0	-4.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6034)	31/01/1993	31/01/2017
51 New	181,264.0	498,815.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6035)	31/01/1993	31/01/2017
52 New	180,956.0	498,431.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6036)	31/01/1993	31/01/2017
53 New	180,647.0	498,047.0	-4.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6037)	31/01/1993	31/01/2017
54 New	180,339.0	497,663.0	-5.0	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6038)	31/01/1993	31/01/2017
55 New	179,917.0	497,364.0	-4.6	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6039)	31/01/1993	31/01/2017
56 New	179,495.0	497,065.0	-5.2	GE WIND ENERGY GE 3.8-130 3830 130.0 !O! hub: 120,0 m (TOT: 185,0 m) (6040)	31/01/1993	31/01/2017
57 New	179,084.0	496,772.0	-5.6	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6041)	31/01/1993	31/01/2017
58 New	178,753.0	496,537.0	-5.1	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6042)	31/01/1993	31/01/2017
59 New	178,423.0	496,303.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6043)	31/01/1993	31/01/2017
60 New	178,092.0	496,069.0	-5.1	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6044)	31/01/1993	31/01/2017
61 New	177,762.0	495,835.0	-4.9	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6045)	31/01/1993	31/01/2017
62 New	176,527.0	498,821.0	-5.1	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6073)	31/01/1993	31/01/2017
63 New	176,172.0	498,982.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6074)	31/01/1993	31/01/2017
64 New	175,817.0	499,143.0	-5.5	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6075)	31/01/1993	31/01/2017
65 New	175,462.0	499,305.0	-5.9	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6076)	31/01/1993	31/01/2017
66 New	175,107.0	499,466.0	-5.8	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6077)	31/01/1993	31/01/2017
67 New	174,752.0	499,627.0	-5.6	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6078)	31/01/1993	31/01/2017
68 New	173,221.0	500,038.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6079)	31/01/1993	31/01/2017
69 New	172,891.0	499,794.0	-6.1	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6080)	31/01/1993	31/01/2017
70 New	172,562.0	499,550.0	-4.5	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6081)	31/01/1993	31/01/2017
71 New	172,232.0	499,306.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6082)	31/01/1993	31/01/2017
72 New	171,903.0	499,062.0	-5.8	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6083)	31/01/1993	31/01/2017
73 New	171,573.0	498,818.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6084)	31/01/1993	31/01/2017
74 New	171,244.0	498,574.0	-5.7	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6085)	31/01/1993	31/01/2017
75 New	170,914.0	498,330.0	-6.1	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6086)	31/01/1993	31/01/2017
76 New	170,585.0	498,086.0	-4.4	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6087)	31/01/1993	31/01/2017
77 New	170,255.0	497,843.0	-5.8	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6088)	31/01/1993	31/01/2017
78 New	174,097.0	495,754.0	-5.0	VESTAS V117-3.6 3600 117.0 !O! hub: 91,5 m (TOT: 150,0 m) (6096)	31/01/1993	31/01/2017

To be continued on next page...

PARK - Main Result

Calculation: Alternatief 2

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		Dutch Stereo-RD/NAP 2008				Calculation period	
	X (east)	Y (north)	Z	Row data/Description	Start	End	
	[m]						
79 New	173,846.0	496,078.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6097)	31/01/1993	31/01/2017	
80 New	173,594.0	496,402.0	-5.2	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6098)	31/01/1993	31/01/2017	
81 New	173,343.0	496,725.0	-4.7	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6099)	31/01/1993	31/01/2017	
82 New	173,091.0	497,049.0	-5.1	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6100)	31/01/1993	31/01/2017	
83 New	172,840.0	497,373.0	-4.5	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6101)	31/01/1993	31/01/2017	
84 New	172,589.0	497,697.0	-5.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6102)	31/01/1993	31/01/2017	
85 New	172,337.0	498,021.0	-5.8	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6103)	31/01/1993	31/01/2017	
86 New	172,708.0	494,674.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6104)	31/01/1993	31/01/2017	
87 New	172,456.0	494,998.0	-5.4	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6105)	31/01/1993	31/01/2017	
88 New	172,205.0	495,322.0	-5.7	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6106)	31/01/1993	31/01/2017	
89 New	171,954.0	495,646.0	-5.1	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6107)	31/01/1993	31/01/2017	
90 New	171,702.0	495,969.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6108)	31/01/1993	31/01/2017	
91 New	171,451.0	496,293.0	-5.4	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6109)	31/01/1993	31/01/2017	
92 New	171,200.0	496,617.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6110)	31/01/1993	31/01/2017	
93 New	170,948.0	496,941.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6111)	31/01/1993	31/01/2017	
94 New	175,734.0	494,701.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6112)	31/01/1993	31/01/2017	
95 New	175,412.0	494,442.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6113)	31/01/1993	31/01/2017	
96 New	175,079.0	494,175.0	-5.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6114)	31/01/1993	31/01/2017	
97 New	174,735.0	493,899.0	-6.9	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6115)	31/01/1993	31/01/2017	
98 New	174,380.0	493,614.0	-4.9	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6116)	31/01/1993	31/01/2017	
99 New	174,025.0	493,330.0	-4.5	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6117)	31/01/1993	31/01/2017	
100 New	173,681.0	493,054.0	-4.3	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6118)	31/01/1993	31/01/2017	
101 New	173,347.0	492,786.0	-4.1	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6119)	31/01/1993	31/01/2017	
102 New	173,025.0	492,527.0	-5.9	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6120)	31/01/1993	31/01/2017	
103 New	172,702.0	492,269.0	-5.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6121)	31/01/1993	31/01/2017	
104 New	172,380.0	492,011.0	-4.4	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6122)	31/01/1993	31/01/2017	
105 New	172,057.0	491,753.0	-4.2	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6123)	31/01/1993	31/01/2017	
106 New	171,735.0	491,495.0	-5.3	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6124)	31/01/1993	31/01/2017	
107 New	171,413.0	491,237.0	-4.7	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6125)	31/01/1993	31/01/2017	
108 New	170,862.0	493,145.0	-5.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6135)	31/01/1993	31/01/2017	
109 New	170,625.0	493,455.0	-4.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6136)	31/01/1993	31/01/2017	
110 New	170,389.0	493,765.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6137)	31/01/1993	31/01/2017	
111 New	170,153.0	494,076.0	-5.3	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6138)	31/01/1993	31/01/2017	
112 New	169,917.0	494,386.0	-5.9	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6139)	31/01/1993	31/01/2017	
113 New	169,678.0	494,697.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6140)	31/01/1993	31/01/2017	
114 New	169,442.0	495,008.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6141)	31/01/1993	31/01/2017	
115 New	169,206.0	495,318.0	-5.1	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6142)	31/01/1993	31/01/2017	
116 New	168,970.0	495,629.0	-6.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6143)	31/01/1993	31/01/2017	
117 New	169,445.0	493,142.0	-5.8	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6144)	31/01/1993	31/01/2017	
118 New	169,125.0	492,895.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6145)	31/01/1993	31/01/2017	
119 New	168,804.0	492,648.0	-4.2	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6146)	31/01/1993	31/01/2017	
120 New	168,483.0	492,401.0	-6.5	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6147)	31/01/1993	31/01/2017	
121 New	168,162.0	492,154.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6148)	31/01/1993	31/01/2017	
122 New	167,858.0	491,833.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6149)	31/01/1993	31/01/2017	
123 New	167,554.0	491,512.0	-5.1	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6150)	31/01/1993	31/01/2017	
124 New	167,250.0	491,191.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6151)	31/01/1993	31/01/2017	
125 New	166,946.0	490,870.0	-5.9	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6152)	31/01/1993	31/01/2017	
126 New	166,642.0	490,549.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6153)	31/01/1993	31/01/2017	
127 New	166,338.0	490,229.0	-5.3	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6154)	31/01/1993	31/01/2017	
128 New	166,034.0	489,908.0	-5.9	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6155)	31/01/1993	31/01/2017	
129 New	165,730.0	489,587.0	-5.7	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6156)	31/01/1993	31/01/2017	
130 New	166,921.0	493,323.0	-6.3	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6158)	31/01/1993	31/01/2017	
131 New	166,616.0	493,003.0	-4.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6159)	31/01/1993	31/01/2017	
132 New	166,312.0	492,683.0	-5.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6160)	31/01/1993	31/01/2017	
133 New	166,007.0	492,362.0	-5.8	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6161)	31/01/1993	31/01/2017	
134 New	165,703.0	492,042.0	-5.1	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6162)	31/01/1993	31/01/2017	
135 New	165,398.0	491,722.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6163)	31/01/1993	31/01/2017	
136 New	165,094.0	491,402.0	-4.3	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6164)	31/01/1993	31/01/2017	
137 New	164,789.0	491,082.0	-6.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6165)	31/01/1993	31/01/2017	
138 New	164,485.0	490,762.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6166)	31/01/1993	31/01/2017	
139 New	164,937.0	488,734.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6174)	31/01/1993	31/01/2017	
140 New	164,643.0	488,998.0	-4.9	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6175)	31/01/1993	31/01/2017	
141 New	164,348.0	489,261.0	-4.2	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6176)	31/01/1993	31/01/2017	
142 New	164,054.0	489,525.0	-5.0	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6177)	31/01/1993	31/01/2017	

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Project:
WKG

Licensed user:
Ventolines BV
Duit 15
NL-8305 BB Emmeloord
+31527616167
Daan Houf / daanhof@ventolines.nl
Calculated:
05/12/2017 17:12/3.1.617

PARK - Main Result

Calculation: Alternatief 2

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				Dutch Stereo-RD/NAP 2008				Calculation period	
	X (east)	Y (north)	Z	Row data/Description			Start	End	
			[m]						
143 New	163,760.0	489,788.0	-5.4	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6178)			31/01/1993	31/01/2017	
144 New	163,466.0	490,052.0	-5.6	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6179)			31/01/1993	31/01/2017	
145 New	163,191.0	490,336.0	-4.1	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6180)			31/01/1993	31/01/2017	
146 New	162,917.0	490,620.0	-4.7	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6181)			31/01/1993	31/01/2017	
147 New	162,642.0	490,904.0	-4.7	VESTAS V117-3.6 3600 117.0 IO! hub: 91,5 m (TOT: 150,0 m) (6182)			31/01/1993	31/01/2017	