

Project:

Offshore Bottenhavet/Bottenviken

Licensed user:

Karlstad Modern Energy AB

Lantvårngatan 8

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Calculated:

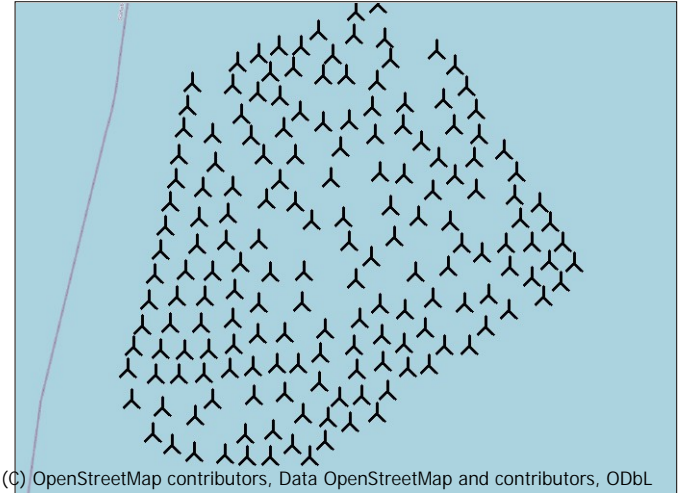
2023-10-02 14:01/3.5.552

NORD2000 - Main Result

Calculation: Lambda V2

Assumptions

Weather stability	
Relative humidity	70.0 %
Air temperature	10.0 °C
Height for air temperature	2.0 m
Stability parameters	Night: Clear sky
Inverse Monin Obukhov length	0.0100
Temperature scale T*	0.0500
Terrain	
Flat area with fixed elevation	0.0 m above sea level
Uniform roughness length	0.0010 m
Uniform roughness class	0.3
Uniform terrain type	G
Wind speed criteria	
Uniform wind speed at 10 m agl.	
Wind speed	8.0 m/s
Wind direction	0.0 ° - 330.0 ° - 30.0 °
Height above ground level for receiver	1.5 m
Wind speed has been extrapolated to calculation height using IEC profile shear (z0 = 0.05m)	
No stability correction	
Version	6.005



(C) OpenStreetMap contributors, Data OpenStreetMap and contributors, ODbL

Scale 1:500 000

New WTG

All coordinates are in Swedish UTM 33-SWREF99 (SE)

WTGs

	Easting	Northing	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Noise data		Wind speed [m/s]	LwA,ref [dB(A)]
					Valid	Manufact.					Creator	Name		
1	683 129	6 840 539	-39.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
2	684 026	6 839 112	-55.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
3	681 426	6 841 430	-54.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
4	681 225	6 839 900	-52.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
5	678 765	6 839 734	-46.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
6	679 982	6 838 702	-52.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
7	676 625	6 838 531	-46.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
8	674 990	6 838 629	-46.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
9	672 273	6 840 164	-47.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
10	671 718	6 838 123	-55.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
11	674 460	6 844 645	-53.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
12	676 446	6 843 318	-58.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
13	674 237	6 842 914	-56.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
14	669 471	6 842 334	-50.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
15	671 069	6 841 668	-58.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
16	675 339	6 846 104	-54.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
17	671 469	6 846 256	-55.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
18	674 824	6 847 500	-58.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
19	669 366	6 839 505	-58.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
20	681 193	6 843 058	-65.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
21	679 701	6 841 998	-63.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
22	677 628	6 840 776	-48.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
23	676 342	6 841 794	-61.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
24	672 822	6 841 937	-57.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
25	674 602	6 841 079	-50.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
26	672 383	6 844 881	-57.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
27	667 247	6 839 425	-54.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
28	666 334	6 840 617	-64.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
29	665 668	6 841 966	-58.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
30	664 974	6 843 922	-59.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
31	666 649	6 843 521	-60.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
32	668 930	6 845 239	-66.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
33	669 327	6 846 731	-59.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
34	670 453	6 847 745	-62.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
35	672 829	6 849 098	-59.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
36	672 788	6 847 580	-64.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
37	670 915	6 844 789	-62.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
38	667 411	6 844 835	-61.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
39	668 152	6 843 311	-60.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
40	668 415	6 841 241	-64.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
41	666 577	6 846 093	-66.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
42	665 199	6 845 445	-64.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
43	667 899	6 846 656	-66.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
44	669 457	6 836 362	-58.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	
45	670 663	6 835 220	-48.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBa	12.2	115.2	

To be continued on next page...

NORD2000 - Main Result

Calculation: Lambda V2

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	Easting	Northing	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Noise data		Wind speed [m/s]	LwA_ref [dB(A)]
					Valid	Manufact.					Creator	Name		
46	672 710	6 835 503	-54.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
47	673 771	6 831 474	-59.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
48	679 778	6 835 633	-39.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
49	678 548	6 837 536	-41.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
50	675 800	6 836 375	-46.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
51	677 687	6 835 853	-45.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
52	681 455	6 837 827	-41.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
53	676 162	6 834 383	-57.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
54	674 681	6 833 013	-49.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
55	677 623	6 832 132	-42.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
56	673 173	6 833 976	-52.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
57	680 582	6 834 218	-37.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
58	682 066	6 833 593	-45.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
59	683 934	6 832 817	-38.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
60	683 588	6 834 339	-47.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
61	688 214	6 833 375	-55.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
62	686 510	6 833 310	-42.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
63	687 287	6 834 637	-55.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
64	686 444	6 835 894	-60.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
65	685 621	6 837 115	-63.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
66	683 982	6 837 601	-60.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
67	684 428	6 836 094	-56.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
68	685 309	6 834 474	-43.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
69	679 839	6 832 635	-45.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
70	685 364	6 832 209	-48.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
71	668 400	6 837 808	-55.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
72	670 291	6 831 858	-55.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
73	683 950	6 829 977	-40.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
74	686 262	6 831 004	-46.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
75	687 386	6 832 004	-52.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
76	682 632	6 830 901	-44.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
77	681 030	6 830 278	-48.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
78	678 893	6 830 432	-43.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
79	674 139	6 828 884	-46.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
80	679 857	6 827 361	-48.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
81	677 150	6 827 385	-43.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
82	677 135	6 829 639	-44.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
83	678 504	6 828 422	-54.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
84	675 423	6 829 898	-51.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
85	677 472	6 825 740	-54.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
86	675 873	6 826 069	-57.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
87	673 859	6 827 018	-54.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
88	671 649	6 826 424	-53.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
89	675 681	6 827 876	-50.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
90	671 843	6 828 040	-59.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
91	670 239	6 825 733	-66.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
92	668 773	6 825 616	-64.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
93	667 204	6 825 348	-62.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
94	667 419	6 827 522	-60.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
95	667 414	6 829 580	-64.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
96	665 766	6 830 412	-61.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
97	665 739	6 828 453	-56.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
98	665 850	6 826 698	-53.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
99	665 660	6 825 128	-63.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
100	664 222	6 826 328	-65.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
101	662 573	6 826 223	-65.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
102	658 974	6 824 769	-64.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
103	660 767	6 824 550	-58.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
104	662 348	6 824 578	-64.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
105	664 023	6 824 748	-68.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
106	661 000	6 826 241	-64.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
107	659 787	6 827 763	-55.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
108	661 578	6 827 947	-66.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
109	663 648	6 828 035	-63.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
110	660 087	6 829 373	-67.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
111	659 206	6 826 285	-69.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
112	660 398	6 831 128	-68.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
113	670 287	6 829 814	-64.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
114	669 195	6 827 671	-63.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
115	661 961	6 829 760	-65.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
116	662 434	6 831 560	-65.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	
117	665 039	6 833 613	-66.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2	12.2	115.2	

To be continued on next page...

Project:

Offshore Bottenhavet/Bottenviken

Licensed user:

Karlstad Modern Energy AB

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Calculated:

2023-10-02 14:01/3.5.552

NORD2000 - Main Result

Calculation: Lambda V2

...continued from previous page

	Easting	Northing	Z	Row data/Description	WTG type		Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Noise data		Wind speed [m/s]	LwA_ref [dB(A)]
					Valid	Manufact.					Creator	Name		
118	663 152	6 833 205	-66.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
119	663 806	6 829 827	-62.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
120	682 506	6 828 778	-58.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
121	681 508	6 827 420	-65.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
122	678 934	6 826 090	-55.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
123	674 127	6 825 489	-54.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
124	667 621	6 836 415	-63.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
125	664 262	6 831 571	-63.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
126	666 012	6 832 175	-65.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
127	660 715	6 832 756	-69.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
128	660 997	6 834 344	-70.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
129	661 204	6 835 965	-72.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
130	661 524	6 837 518	-74.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
131	663 124	6 835 090	-68.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
132	665 073	6 835 337	-68.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
133	663 344	6 837 011	-70.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
134	665 332	6 837 187	-71.4	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
135	663 809	6 840 652	-74.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
136	661 651	6 839 141	-72.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
137	661 850	6 840 904	-67.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
138	662 027	6 842 375	-65.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
139	662 311	6 843 886	-71.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
140	680 460	6 844 547	-68.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
141	678 970	6 843 642	-71.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
142	679 572	6 845 898	-71.6	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
143	678 349	6 846 860	-73.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
144	674 305	6 849 709	-71.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
145	664 039	6 838 708	-72.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
146	668 036	6 831 662	-70.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
147	667 229	6 833 819	-71.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
148	676 269	6 824 199	-56.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
149	672 206	6 820 714	-41.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
150	672 376	6 822 249	-44.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
151	673 032	6 823 607	-46.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
152	674 534	6 823 765	-50.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
153	673 885	6 821 914	-58.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
154	675 577	6 822 667	-57.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
155	671 679	6 824 499	-66.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
156	659 285	6 822 774	-57.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
157	661 290	6 822 364	-48.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
158	660 720	6 820 647	-53.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
159	662 062	6 819 933	-51.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
160	663 537	6 821 858	-52.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
161	663 569	6 819 437	-54.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
162	665 632	6 819 388	-58.2	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
163	667 135	6 819 378	-66.3	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
164	668 670	6 819 453	-61.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
165	670 049	6 820 280	-53.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
166	670 689	6 822 350	-59.1	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
167	671 299	6 819 637	-56.0	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
168	669 417	6 823 658	-67.7	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
169	667 331	6 823 456	-65.5	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
170	664 688	6 823 047	-63.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
171	666 871	6 820 857	-66.9	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	
172	668 786	6 821 197	-68.8	MODERNENERGY ME26...Yes	MODERNENERGY	ME263-20-20 000	20 000	263.0	160.0	USER	115.2 dBA	12.2	115.2	

Calculation Results

Project:

Offshore Bottenhavet/Bottenviken

Licensed user:

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Niklas Sondell / niklas.sondell@modernenergy.se

Calculated:

2023-10-02 14:01/3.5.552

NORD2000 - Main Result

Calculation: Lambda V2

Project:

Offshore Bottenhavet/Bottenviken

Licensed user:

Karlstad Modern Energy AB

Lantvärnsgatan 8

SE-65221 Karlstad

+46 702185064

Niklas Sondell / niklas.sondell@modernenergy.se

Calculated:

2023-10-02 14:01/3.5.552

NORD2000 - Assumptions for NORD2000 calculation

Calculation: Lambda V2

Assumptions

Weather stability	
Relative humidity	70.0 %
Air temperature	10.0 °C
Height for air temperature	2.0 m
Stability parameters	Night; Clear sky
Inverse Monin Obukhov length	0.0100
Temperature scale T*	0.0500
Terrain	
Flat area with fixed elevation	0.0 m above sea level
Uniform roughness length	0.0010 m
Uniform roughness class	0.3
Uniform terrain type	G
Wind speed criteria	
Uniform wind speed at 10 m agl.	
Wind speed	8.0 m/s
Wind direction	0.0 ° - 330.0 ° - 30.0 °
Height above ground level for receiver	1.5 m
Wind speed has been extrapolated to calculation height using IEC profile shear (z0 = 0.05m)	
No stability correction	
Version	6.005

All coordinates are in
Swedish UTM 33-SWREF99 (SE)

WTG: MODERNENERGY ME263-20 20000 263.0 !O!

Noise: 115.2 dBa

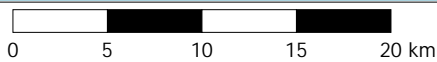
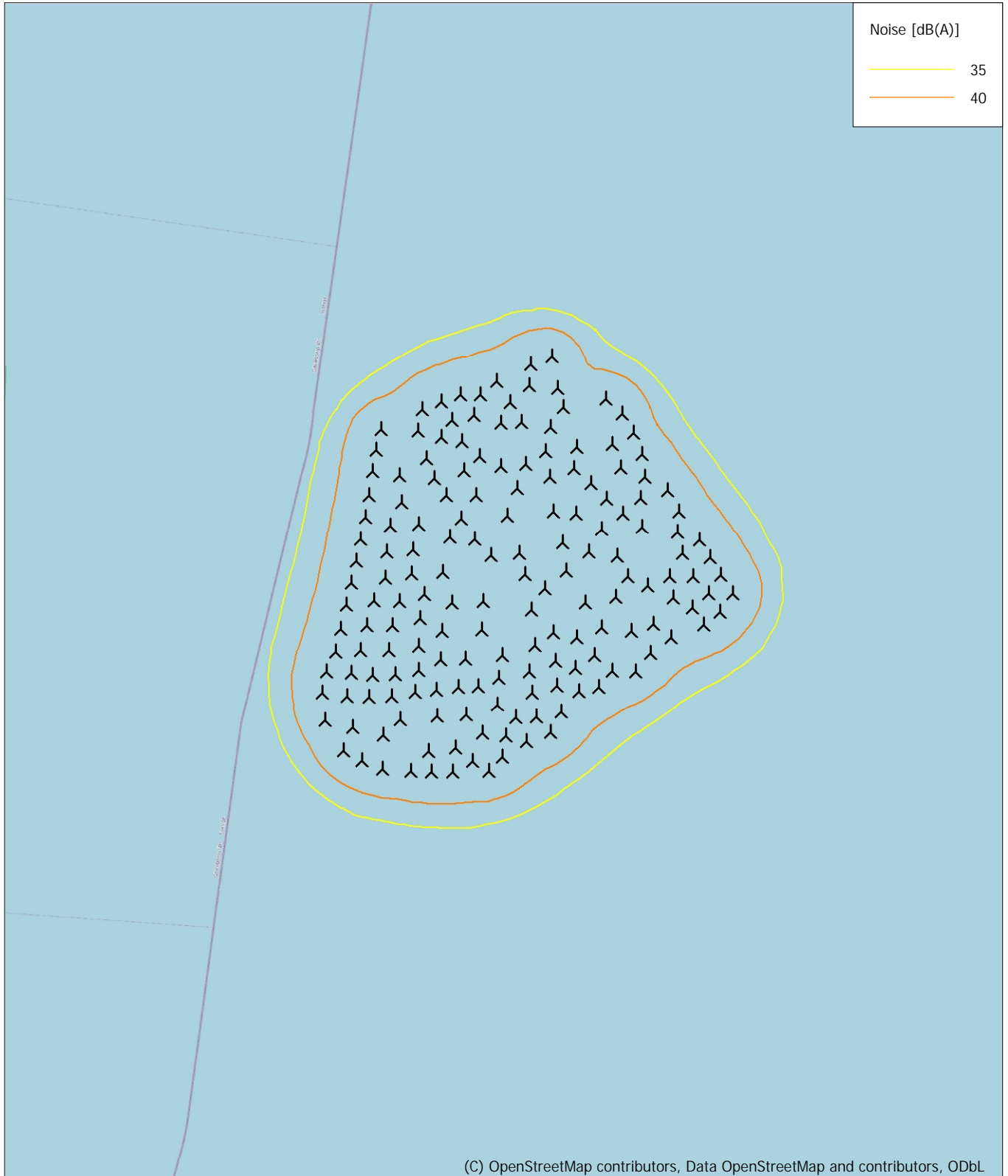
Source	Source/Date	Creator	Edited
	2021-09-13	USER	2021-11-10 15:14

Octave data

Wind speed [m/s]	LwA,ref [dB(A)]	63 [dB(A)]	125 [dB(A)]	250 [dB(A)]	500 [dB(A)]	1000 [dB(A)]	2000 [dB(A)]	4000 [dB(A)]	8000 [dB(A)]
10.0	115.2	93.6	102.3	107.9	110.3	109.7	105.9	99.1	89.1
11.0	115.2	93.6	102.3	107.9	110.3	109.7	105.9	99.1	89.1
12.0	115.2	93.6	102.3	107.9	110.3	109.7	105.9	99.1	89.1

NORD2000 - 8.0 m/s

Calculation: Lambda V2



Map: EMD OpenStreetMap , Print scale 1:400 000, Map center Swedish UTM 33-SWREF99 (SE) East: 673 594 North: 6 834 544

New WTG