

Project:

Urakkaneva

Licensed user:

ABO Wind AG

Unter den Eichen, 7

DE-65195 Wiesbaden

+49 611 26765 0

Dominik Fremgen / dominik.fremgen@abo-wind.de

Calculated:

2024-03-07 13:26/4.0.531

DECIBEL - Main Result

Calculation: 2024-03-07_Urakkaneva_Noise-low freq_9x V162-6.4_HH169

Noise calculation model:

Finland Low frequency

Wind speed (at 10 m height):

Highest noise value at receptor

Spectral distribution:

From 20,0 Hz to 200,0 Hz

Meteorological coefficient, CO:

Selected option: Fixed value: 0,0 dB

Type of demand in calculation:

1: WTG noise is compared to demand (DK, DE, SE, NL etc.)

Noise values in calculation:

All noise values are mean values (Lwa) (Normal)

Pure tones:

Pure tone penalty is subtracted from demand

Model: 5,0 dB(A)

Height above ground level, when no value in NSA object:

4,0 m; Don't allow override of model height with height from NSA object

Uncertainty margin:

0,0 dB; Uncertainty margin in model has priority

Deviation from "official" noise demands. Negative is more

restrictive, positive is less restrictive.:

0,0 dB(A)

All coordinates are in

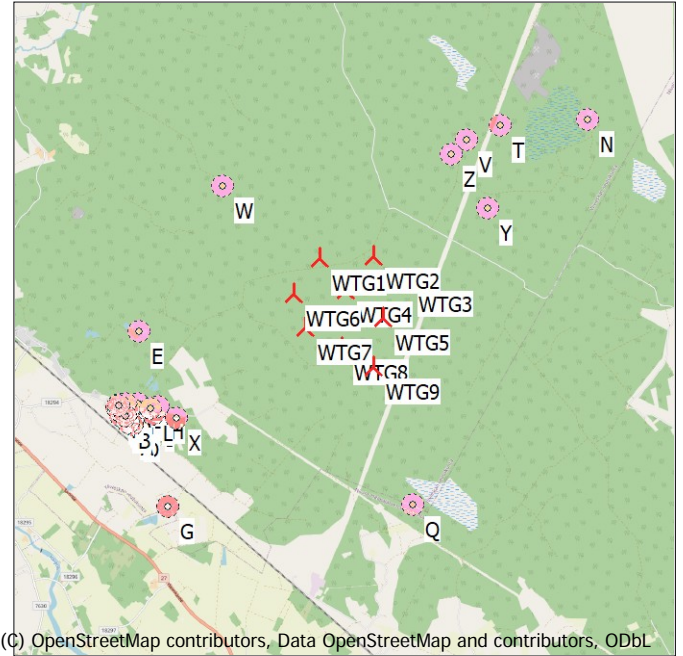
UTM (north)-ETRS89 Zone: 35

All coordinates are in

UTM (north)-ETRS89 Zone: 35

WTGs

	Easting Northing Z			Row data/Description	WTG type			Power, rated	Rotor diameter	Hub height	Noise data		First wind speed [m/s]	LwaRef [dB(A)]	Last wind speed [m/s]	LwaRef [dB(A)]
	Valid	Manufact.	Type-generator		Creator	Name										
	[m]						[kW]	[m]	[m]							
WTG1	396.211	7.101.094	94,2	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG2	397.111	7.101.106	95,5	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG3	397.634	7.100.697	99,0	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG4	396.621	7.100.560	95,9	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG5	397.234	7.100.072	97,3	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG6	395.776	7.100.518	94,5	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG7	395.945	7.099.964	95,0	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG8	396.528	7.099.617	95,3	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	
WTG9	397.062	7.099.281	96,6	VESTAS V162-6.4 6400 162.0 !... Yes	VESTAS	V162-6.4-6.400	6.400	162,0	169,0	USER	ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB	6,0	98,6	11,0	98,6	



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

Scale 1:125.000

New WTG

Noise sensitive area

Calculation Results

Sound level

Noise sensitive area

No. Name

No.	Name	Easting	Northing	Z	Immission height [m]	Most critical demand		Predicted sound level [dB]	Demands fulfilled ?
						Frequency [Hz]	Noise [dB]		
A	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (82)	392.954	7.098.494	80,0	4,0	50,0	44,0	33,1	Yes
B	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (83)	392.893	7.098.598	81,8	4,0	50,0	44,0	33,1	Yes
C	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (84)	392.838	7.098.600	81,3	4,0	50,0	44,0	33,0	Yes
D	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (85)	392.910	7.098.814	85,6	4,0	50,0	44,0	33,3	Yes
E	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (86)	393.183	7.099.997	90,0	4,0	50,0	44,0	34,7	Yes
F	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (87)	393.127	7.098.800	85,0	4,0	50,0	44,0	33,8	Yes
G	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (88)	393.552	7.097.057	73,2	4,0	50,0	44,0	32,3	Yes
H	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (89)	393.465	7.098.732	85,0	4,0	50,0	44,0	34,5	Yes
I	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (90)	393.379	7.098.610	82,3	4,0	50,0	44,0	34,1	Yes
J	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (91)	392.813	7.098.803	85,1	4,0	50,0	44,0	33,1	Yes
K	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (92)	392.834	7.098.708	84,4	4,0	50,0	44,0	33,1	Yes
L	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (93)	393.324	7.098.709	85,0	4,0	50,0	44,0	34,1	Yes
M	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (94)	392.772	7.098.738	84,2	4,0	50,0	44,0	33,0	Yes
N	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (95)	400.743	7.103.242	104,3	4,0	50,0	44,0	31,4	Yes
O	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (96)	393.011	7.098.445	80,0	4,0	50,0	44,0	33,2	Yes
P	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (97)	392.807	7.098.774	85,0	4,0	50,0	44,0	33,1	Yes
Q	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (98)	397.641	7.096.959	99,3	4,0	50,0	44,0	34,8	Yes
R	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (99)	392.797	7.098.697	83,5	4,0	50,0	44,0	33,0	Yes
S	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (100)	392.924	7.098.727	84,8	4,0	50,0	44,0	33,3	Yes
T	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (101)	399.277	7.103.184	100,0	4,0	50,0	44,0	33,8	Yes
U	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (102)	392.955	7.098.698	84,1	4,0	50,0	44,0	33,3	Yes
V	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (103)	398.726	7.102.979	100,0	4,0	50,0	44,0	35,2	Yes
W	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (104)	394.643	7.102.346	90,5	4,0	50,0	44,0	36,6	Yes
X	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (105)	393.762	7.098.534	81,3	4,0	50,0	44,0	34,9	Yes
Y	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (106)	399.043	7.101.843	101,3	4,0	50,0	44,0	36,9	Yes
Z	Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night (107)	398.461	7.102.746	100,0	4,0	50,0	44,0	36,2	Yes

*)Spectral distribution, please see details in report "Detailed results"

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DECIBEL - Main Result

Calculation: 2024-03-07_Urakkaneva_Noise-low freq_9x V162-6.4_HH169

Distances (m)

	WTG								
NSA	WTG1	WTG2	WTG3	WTG4	WTG5	WTG6	WTG7	WTG8	WTG9
A	4167	4910	5173	4209	4562	3473	3333	3746	4183
B	4152	4907	5185	4213	4585	3464	3344	3775	4225
C	4195	4954	5235	4261	4636	3509	3394	3828	4279
D	4012	4786	5086	4101	4503	3334	3246	3706	4178
E	3220	4082	4506	3484	4052	2645	2762	3367	3945
F	3844	4603	4890	3912	4300	3157	3049	3498	3964
G	4834	5391	5469	4658	4759	4114	3766	3925	4155
H	3622	4351	4609	3647	4000	2921	2770	3188	3639
I	3767	4490	4739	3784	4123	3064	2902	3306	3744
J	4098	4876	5180	4194	4600	3424	3341	3803	4276
K	4135	4904	5196	4216	4607	3454	3355	3804	4267
L	3745	4482	4747	3781	4141	3047	2906	3330	3782
M	4169	4943	5242	4259	4657	3492	3402	3858	4324
N	5015	4213	4018	4917	4729	5665	5810	5560	5407
O	4154	4888	5143	4184	4526	3456	3304	3707	4136
P	4119	4895	5196	4212	4614	3443	3356	3815	4285
Q	4376	4181	3738	3743	3140	4018	3451	2881	2393
R	4171	4941	5234	4254	4645	3492	3394	3843	4305
S	4050	4816	5106	4127	4515	3368	3265	3712	4175
T	3711	3001	2981	3733	3722	4400	4633	4504	4488
U	4042	4803	5088	4112	4494	3357	3247	3689	4148
V	3143	2473	2530	3206	3267	3842	4101	4017	4055
W	2006	2762	3416	2665	3447	2151	2714	3317	3905
X	3543	4223	4435	3504	3798	2827	2610	2970	3384
Y	2930	2068	1816	2741	2531	3525	3623	3359	3239
Z	2791	2124	2210	2857	2942	3489	3751	3678	3737

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DECIBEL - Assumptions for noise calculation

Calculation: 2024-03-07_Urakkaneva_Noise-low freq_9x V162-6.4_HH169

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4,0 m; Don't allow override of model height with height from NSA object

Uncertainty margin:

0,0 dB; Uncertainty margin in model has priority

Deviation from "official" noise demands. Negative is more restrictive, positive is less restrictive.:

0,0 dB(A)

Low frequency calculation

dLsigma

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
6,0	6,0	7,0	7,0	8,0	9,0	10,0	11,0	12,0	13,0	14,0

All coordinates are in

UTM (north)-ETRS89 Zone: 35

WTG: VESTAS V162-6.4 6400 162.0 !-!

Noise: ZZ_TRZ_V162-6.4_STE_PO6400_106.6+2.0dB

Source Source/Date Creator Edited

Man./CHI 2022-10-13 USER 2024-03-07 13:23

Document no.: 0133-3544.V01

Status	Hub height	Wind speed	LwA,ref	20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
	[m]	[m/s]	[dB(A)]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]	[dB]
From Windcat	169,0	6,0	98,6	63,0	67,5	71,8	76,0	79,5	82,8	85,9	88,5	90,7	92,8	94,4
From Windcat	169,0	7,0	99,1	63,8	68,3	72,6	76,6	80,1	83,4	86,4	89,0	91,2	93,3	94,9
From Windcat	169,0	8,0	99,2	63,8	68,2	72,5	76,6	80,1	83,4	86,4	89,0	91,3	93,4	94,9
From Windcat	169,0	9,0	99,0	63,3	67,8	72,1	76,2	79,7	83,1	86,1	88,7	91,0	93,2	94,9
From Windcat	169,0	10,0	98,8	62,5	67,0	71,4	75,6	79,2	82,7	85,8	88,5	90,8	93,1	94,8
From Windcat	169,0	11,0	98,6	61,5	66,2	70,6	74,9	78,6	82,1	85,3	88,0	90,4	92,8	94,6

Noise sensitive area: A Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: B Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

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DECIBEL - Assumptions for noise calculation

Calculation: 2024-03-07_Urakkaneva_Noise-low freq_9x V162-6.4_HH169

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: C Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: D Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: E Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: F Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: G Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: H Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

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Noise sensitive area: I Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: J Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: K Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: L Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: M Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Noise sensitive area: N Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz 25,0 Hz 31,5 Hz 40,0 Hz 50,0 Hz 63,0 Hz 80,0 Hz 100,0 Hz 125,0 Hz 160,0 Hz 200,0 Hz
74,0 dB 64,0 dB 56,0 dB 49,0 dB 44,0 dB 42,0 dB 40,0 dB 38,0 dB 36,0 dB 34,0 dB 32,0 dB

No distance demand

Project:

Urakkaneva

Licensed user:

ABO Wind AG

Unter den Eichen, 7

DE-65195 Wiesbaden

+49 611 26765 0

Dominik Fremgen / dominik.fremgen@abo-wind.de

Calculated:

2024-03-07 13:26/4.0.531

DECIBEL - Assumptions for noise calculation

Calculation: 2024-03-07_Urakkaneva_Noise-low freq_9x V162-6.4_HH169

Noise sensitive area: O Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: P Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: Q Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: R Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: S Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: T Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Project:

Urakkaneva

Licensed user:

ABO Wind AG

Unter den Eichen, 7

DE-65195 Wiesbaden

+49 611 26765 0

Dominik Fremgen / dominik.fremgen@abo-wind.de

Calculated:

2024-03-07 13:26/4.0.531

DECIBEL - Assumptions for noise calculation

Calculation: 2024-03-07_Urakkaneva_Noise-low freq_9x V162-6.4_HH169

Noise sensitive area: U Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: V Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: W Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: X Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: Y Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

No distance demand

Noise sensitive area: Z Noise sensitive point: Finnish low frequency - Residential health guide 2003, indoor - night

Predefined calculation standard: Residential health guide 2003, indoor - night

Immission height(a.g.l.): Use standard value from calculation model

Uncertainty margin: Use default value from calculation model

No temporal binning

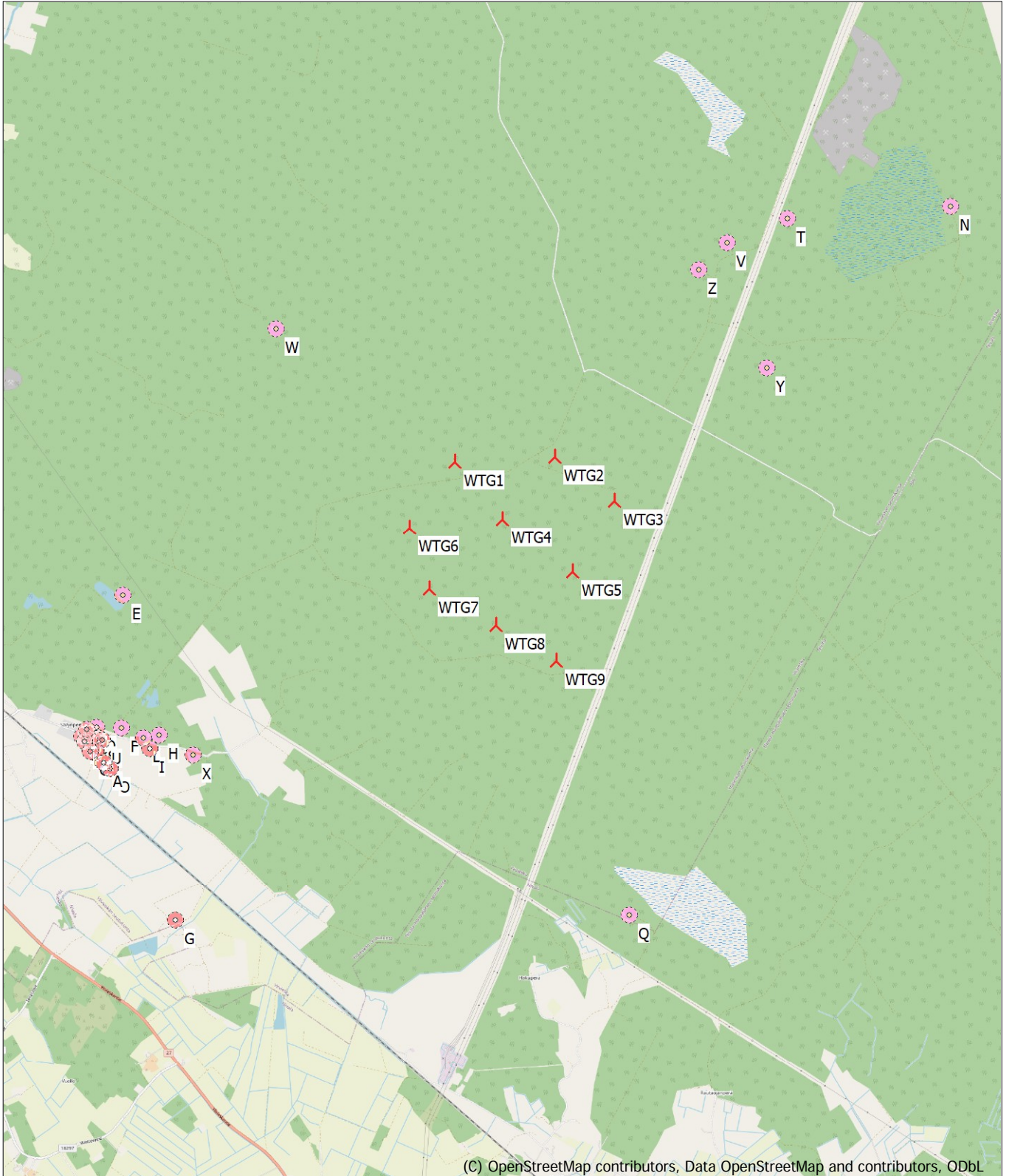
Noise demand:

20,0 Hz	25,0 Hz	31,5 Hz	40,0 Hz	50,0 Hz	63,0 Hz	80,0 Hz	100,0 Hz	125,0 Hz	160,0 Hz	200,0 Hz
74,0 dB	64,0 dB	56,0 dB	49,0 dB	44,0 dB	42,0 dB	40,0 dB	38,0 dB	36,0 dB	34,0 dB	32,0 dB

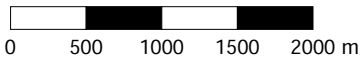
No distance demand

DECIBEL - Map

Calculation: 2024-03-07_Urakkaneva_Noise-low freq_9x V162-6.4_HH169



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



Map: EMD OpenStreetMap , Print scale 1:50.000, Map center UTM (north)-ETRS89 Zone: 35 East: 396.758 North: 7.100.100

New WTG Noise sensitive area