

6 priedas

PROGNOSTINIAI TRIUKŠMO MODELIAVIMO REZULTATAI

Project:

5 VE statyba Akmenės rajone

Description:

Organizatorius: UAB "GREEN CHARGE"

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Calculated:

2018.10.19 09:54/2.9.269

Prognostiniai triukšmo modeliavimo rezultatai

VE modelis: Vestas V150-4.2, 4200 kW, bokšto aukštis 166 m, rotoriaus skersmuo 150 m, bendras aukštis 241 m, maksimalus skleidžiamas triukšmo lygis 104,9 dB(A)

DECIBEL - Main Result**Calculation: GREEN CHARGE****Noise calculation model:**

ISO 9613-2 General

Wind speed:

10,0 m/s

Ground attenuation:

General, Ground factor: 0,6

Meteorological coefficient, C0:

2,0 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 and Impulse tone penalty are added to WTG source noise

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

1,5 m Don't allow override of model height with height from NSA object

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

0,0 dB(A)

WTGs

	Lithuanian TM LKS94-LKS94 (LT)				WTG type		Noise data				Wind speed [m/s]	LwA,ref [dB(A)]	Pure tones		
	East	North	Z	Row data/Description	Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]				Creator	Name
VE01	436.894	6.242.632	75,0	VESTAS V150-4.2 4200 15...	Yes	VESTAS	V150-4.2-4.200	4.200	150,0	166,0	EMD	Level 0 -- Mode 0/PO1 - 10-2017	10,0	104,9	0 dB h
VE02	437.205	6.242.132	75,0	VESTAS V150-4.2 4200 15...	Yes	VESTAS	V150-4.2-4.200	4.200	150,0	166,0	EMD	Level 0 -- Mode 0/PO1 - 10-2017	10,0	104,9	0 dB h
VE03	437.702	6.242.746	75,0	VESTAS V150-4.2 4200 15...	Yes	VESTAS	V150-4.2-4.200	4.200	150,0	166,0	EMD	Level 0 -- Mode 0/PO1 - 10-2017	10,0	104,9	0 dB h
VE04	438.120	6.243.221	75,0	VESTAS V150-4.2 4200 15...	Yes	VESTAS	V150-4.2-4.200	4.200	150,0	166,0	EMD	Level 0 -- Mode 0/PO1 - 10-2017	10,0	104,9	0 dB h
VE05	438.797	6.243.113	75,0	VESTAS V150-4.2 4200 15...	Yes	VESTAS	V150-4.2-4.200	4.200	150,0	166,0	EMD	Level 0 -- Mode 0/PO1 - 10-2017	10,0	104,9	0 dB h

h) Generic octave distribution used

Calculation Results**Sound Level****Noise sensitive area**

No.	Name	Lithuanian TM LKS94-LKS94 (LT)				Demands Noise [dB(A)]	Sound Level From WTGs [dB(A)]	Demands fulfilled ? Noise
		East	North	Z	Imission height [m]			
A	Noise sensitive area: German TA Lärm - Unzoned countryside areas (32)	437.076	6.241.462	75,0	1,5	45,0	35,8	Yes
B	Noise sensitive area: German TA Lärm - Unzoned countryside areas (33)	438.130	6.242.137	75,0	1,5	45,0	37,1	Yes
C	Noise sensitive area: German TA Lärm - Unzoned countryside areas (34)	438.273	6.242.153	75,0	1,5	45,0	36,5	Yes
D	Noise sensitive area: German TA Lärm - Unzoned countryside areas (35)	438.923	6.242.408	75,0	1,5	45,0	35,9	Yes

Distances (m)

WTG	A	B	C	D
VE01	1184	1332	1459	2041
VE02	683	913	1068	1740
VE03	1259	744	823	1267
VE04	1763	1082	1074	1143
VE05	1911	1171	1055	710

Project:
5 VE statyba Akmenės rajone

Description:
 Organizatorius: UAB "GREEN CHARGE"

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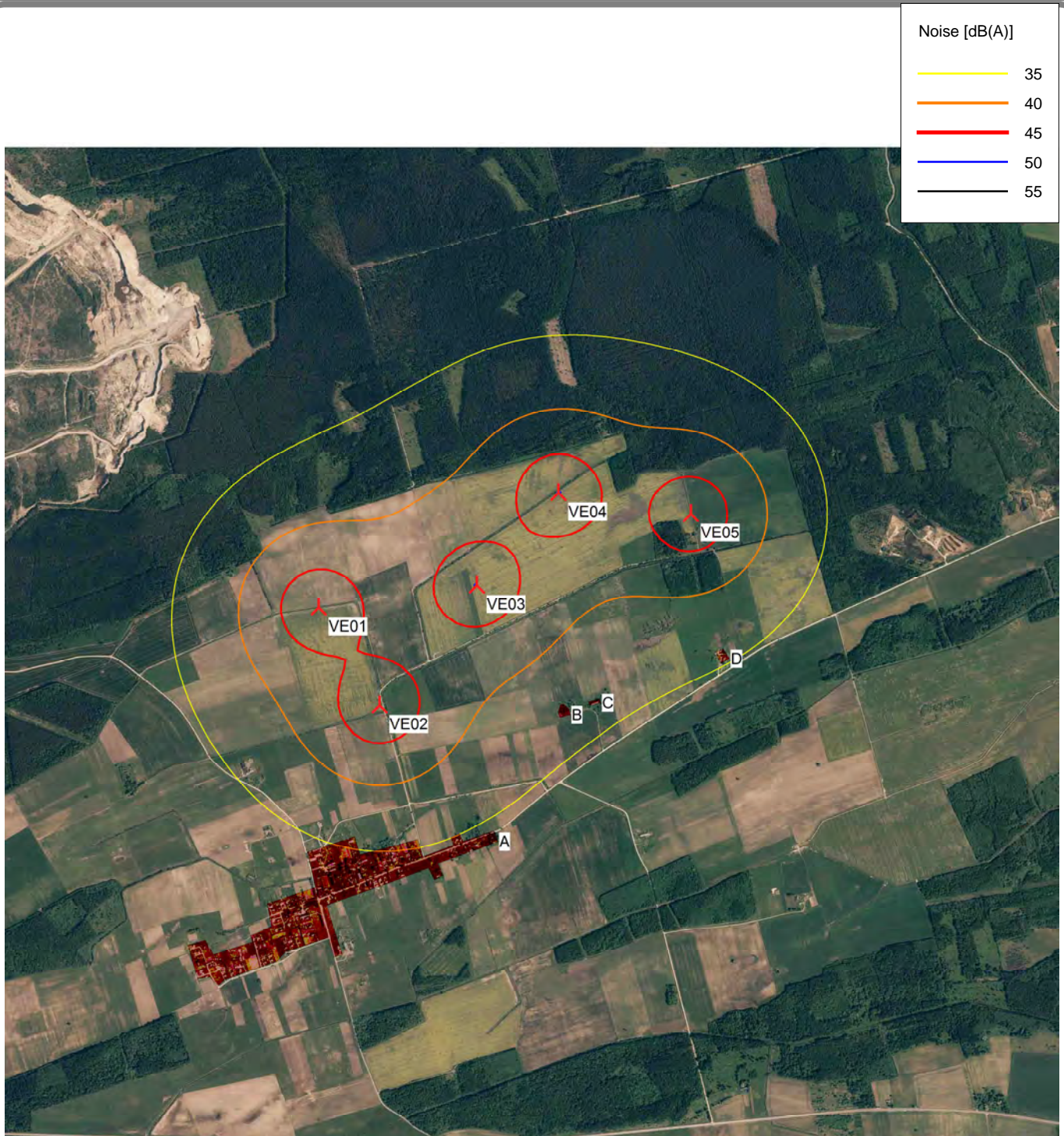
Prognostiniai triukšmo modeliavimo rezultatai

VE modelis: Vestas V150-4.2, 4200 kW, bokšto aukštis 166 m, rotoriaus skersmuo 150 m, bendras aukštis 241 m, maksimalus sklaidžiamas triukšmo lygis 104,9 dB(A)

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DECIBEL - Map 10,0 m/s

Calculation: GREEN CHARGE



Noise [dB(A)]	
	35
	40
	45
	50
	55

0 500 1000 1500 2000 m

Map: Akmene (2) , Print scale 1:30.000, Map center Lithuanian TM LKS94-LKS94 (LT) East: 437.846 North: 6.242.676

New WTG

Noise sensitive area

Noise calculation model: ISO 9613-2 General. Wind speed: 10,0 m/s
 Height above sea level from active line object

Project:

5 VE statyba Akmenės rajone

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Prognostiniai triukšmo modeliavimo rezultatai

VE modelis: Nordex N149/4.0-4.5, 4500 kW, bokšto aukštis 164 m, rotoriaus skersmuo 149 m, bendras aukštis 238,5 m, maksimalus skleidžiamas triukšmo lygis 106,1 dB(A)

DECIBEL - Main Result**Calculation: GREEN CHARGE****Noise calculation model:**

ISO 9613-2 General

Wind speed:

10,0 m/s

Ground attenuation:

General, Ground factor: 0,6

Meteorological coefficient, C0:

2,0 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 and Impulse tone penalty are added to WTG source noise

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

1,5 m Don't allow override of model height with height from NSA object

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

0,0 dB(A)

WTGs

	Lithuanian TM LKS94-LKS94 (LT)			Row data/Description	WTG type			Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Noise data		Wind speed [m/s]	LwA,ref [dB(A)]	Pure tones
	East	North	Z		Valid	Manufact.	Type-generator				Creator	Name			
VE01	436.894	6.242.632	75,0	NORDEX N149/4.0-4.5 450...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	164,0	EMD	Mode 04 - 106.1 dB(A) - octave	10,0	106,1	0 dB
VE02	437.205	6.242.132	75,0	NORDEX N149/4.0-4.5 450...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	164,0	EMD	Mode 04 - 106.1 dB(A) - octave	10,0	106,1	0 dB
VE03	437.702	6.242.746	75,0	NORDEX N149/4.0-4.5 450...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	164,0	EMD	Mode 04 - 106.1 dB(A) - octave	10,0	106,1	0 dB
VE04	438.120	6.243.221	75,0	NORDEX N149/4.0-4.5 450...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	164,0	EMD	Mode 04 - 106.1 dB(A) - octave	10,0	106,1	0 dB
VE05	438.797	6.243.113	75,0	NORDEX N149/4.0-4.5 450...	Yes	NORDEX	N149/4.0-4.5-4.500	4.500	149,0	164,0	EMD	Mode 04 - 106.1 dB(A) - octave	10,0	106,1	0 dB

Calculation Results**Sound Level****Noise sensitive area**

No.	Name	Lithuanian TM LKS94-LKS94 (LT)			Imission height [m]	Demands Noise [dB(A)]	Sound Level From WTGs [dB(A)]	Demands fulfilled ? Noise
		East	North	Z				
A	Noise sensitive area: German TA Lärm - Unzoned countryside areas (32)	437.076	6.241.462	75,0	1,5	45,0	37,0	Yes
B	Noise sensitive area: German TA Lärm - Unzoned countryside areas (33)	438.130	6.242.137	75,0	1,5	45,0	38,4	Yes
C	Noise sensitive area: German TA Lärm - Unzoned countryside areas (34)	438.273	6.242.153	75,0	1,5	45,0	37,7	Yes
D	Noise sensitive area: German TA Lärm - Unzoned countryside areas (35)	438.923	6.242.408	75,0	1,5	45,0	37,1	Yes

Distances (m)

WTG	A	B	C	D
VE01	1184	1332	1459	2041
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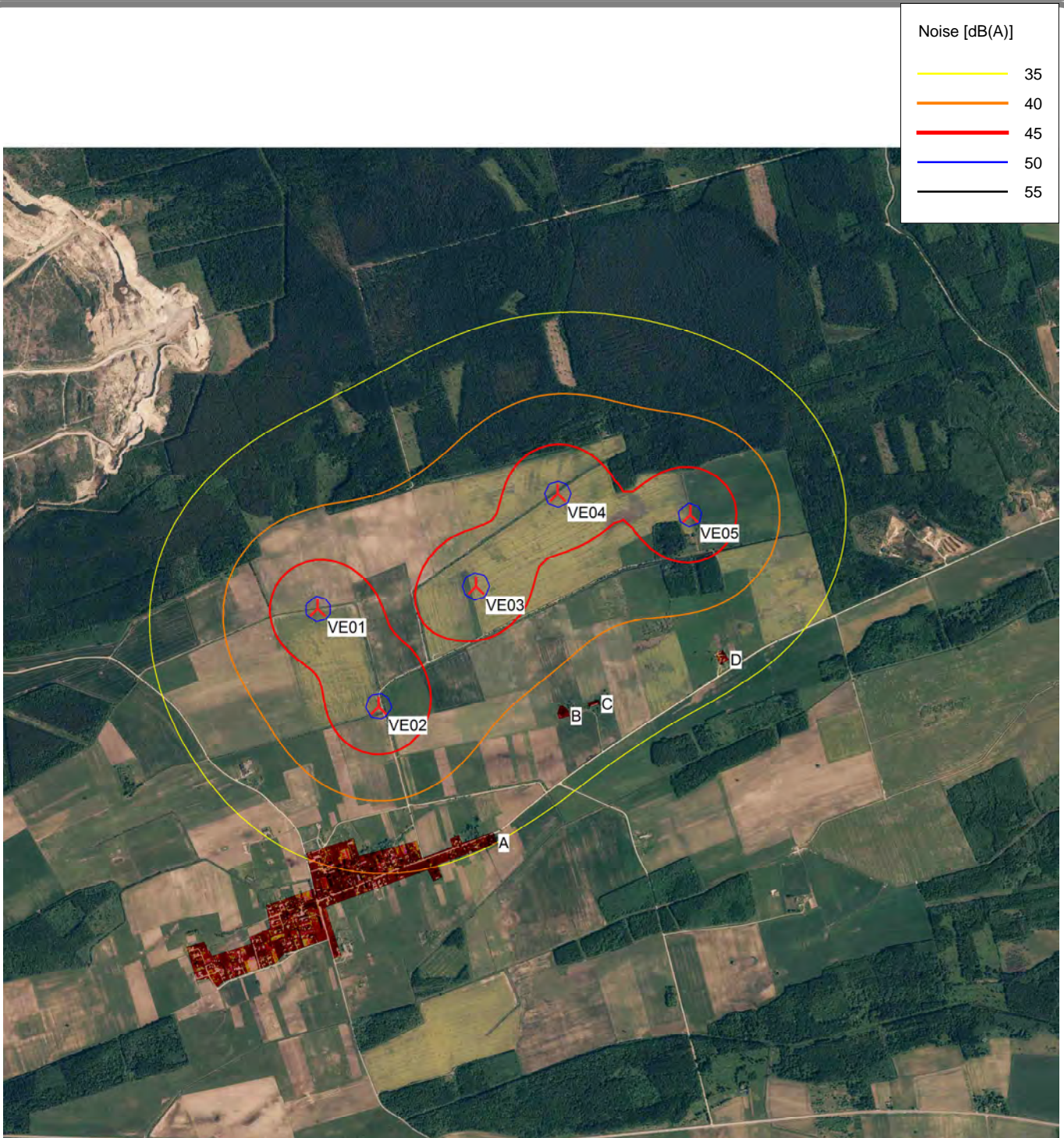
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VE modelis: Nordex N149/4.0-4.5, 4500 kW, bokšto aukštis 164 m, rotoriaus skersmuo 149 m, bendras aukštis 238,5 m, maksimalus skleidžiamas triukšmo lygis 106,1 dB(A)

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DECIBEL - Map 10,0 m/s

Calculation: GREEN CHARGE



Noise [dB(A)]	
Yellow line	35
Orange line	40
Red line	45
Blue line	50
Black line	55

0 500 1000 1500 2000 m

Map: Akmene (2) , Print scale 1:30.000, Map center Lithuanian TM LKS94-LKS94 (LT) East: 437.846 North: 6.242.676

New WTG

Noise sensitive area

Noise calculation model: ISO 9613-2 General. Wind speed: 10,0 m/s
 Height above sea level from active line object