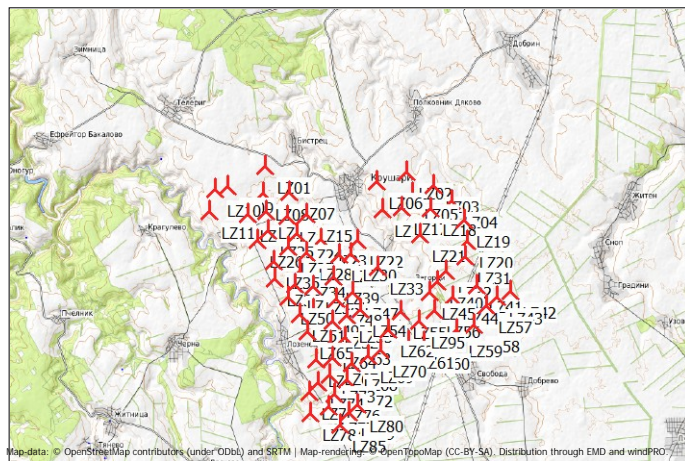
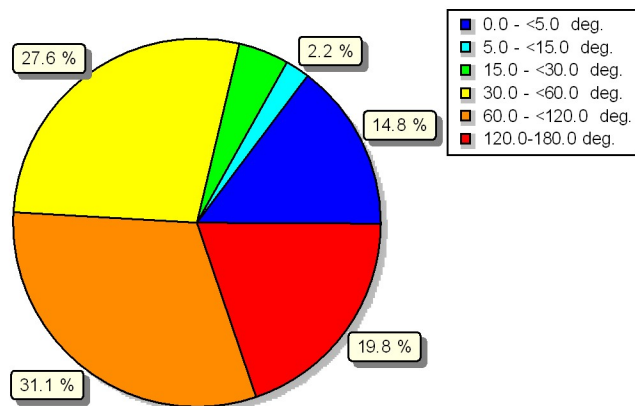


ZVI - Horizontal subtended angle

Calculation: ZVI_Model_2

Area with specific horizontal subtended angle



New WTG

Scale 1:300,000

Assumptions for ZVI calculation

Center for calculation
Width of calculation area
Height of calculation area
Calculation step
Eye height
Calculation area
WTG Calculation height
Obstacles used in calculation
DHM object
No area objects used in calculation
No grid objects used in calculation
New WTGs used in calculation
Existing WTGs used in calculation

Geo WGS84 East: 27.755919° E North: 43.798637° N
25,000 m
25,000 m
25 m
1.5 m
62,625 ha
Hub height
0
Project Wizard Elevation Data Grid (SRTM: Shuttle DTM 1 arc-second)

80
0

No maximum distance to WTG

ZVI Results

Horizontal subtended angle [deg]	Area [ha]	Area [%]
0.0 - <5.0	9261	14.8
5.0 - <15.0	1379	2.2
15.0 - <30.0	2768	4.4
30.0 - <60.0	17303	27.6
60.0 - <120.0	19494	31.1
120.0 - <=180.0	12421	19.8

WTGs

	Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Longitude	Latitude	Z
									[m]
LZ01	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.714866° E	43.824626° N	211.0
LZ02	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.784451° E	43.822584° N	209.0
LZ03	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.797803° E	43.817890° N	208.5
LZ04	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.806632° E	43.812454° N	199.5
LZ05	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.787330° E	43.815272° N	214.0
LZ06	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.769493° E	43.819163° N	212.0
LZ07	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.726368° E	43.815519° N	208.3
LZ08	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.713708° E	43.815324° N	198.2
LZ09	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.695726° E	43.817396° N	214.7
LZ10	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.689688° E	43.816464° N	209.0
LZ11	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.686964° E	43.808480° N	210.5
LZ12	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.706185° E	43.807863° N	208.0
LZ13	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.715232° E	43.808702° N	199.7
LZ14	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.725760° E	43.806759° N	212.8
LZ15	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.734995° E	43.807452° N	196.8
LZ16	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.772299° E	43.809164° N	204.0
LZ17	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.782096° E	43.809881° N	204.2
LZ18	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.796294° E	43.809684° N	212.9
LZ19	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.813020° E	43.805512° N	214.0
LZ20	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.814270° E	43.797849° N	210.1
LZ21	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.791097° E	43.800551° N	210.0
LZ22	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.760219° E	43.798385° N	214.0
LZ23	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.742267° E	43.798574° N	210.2
LZ24	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.730245° E	43.800760° N	202.8
LZ25	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	200.0	27.715645° E	43.801930° N	211.0

To be continued on next page...



ZVI - Horizontal subtended angle

Calculation: ZVI_Model_2

...continued from previous page

Valid	Manufact.	Type-generator	Power, rated [kW]	Rotor diameter [m]	Hub height [m]	Longitude	Latitude	Z [m]
LZ26	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.711038° E	43.798430° N	209.2
LZ27	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.725908° E	43.796116° N	216.2
LZ28	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.735055° E	43.794017° N	197.1
LZ29	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.751027° E	43.793254° N	197.9
LZ30	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.756643° E	43.793736° N	207.4
LZ31	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.813133° E	43.792619° N	220.7
LZ32	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.803772° E	43.787504° N	219.6
LZ33	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.770259° E	43.788808° N	219.0
LZ34	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.731441° E	43.787461° N	210.8
LZ35	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.718711° E	43.790803° N	216.3
LZ36	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.719699° E	43.784739° N	216.9
LZ37	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.729330° E	43.782816° N	220.9
LZ38	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.737968° E	43.781732° N	212.8
LZ39	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.748506° E	43.785186° N	218.1
LZ40	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.799537° E	43.783725° N	215.7
LZ41	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.819124° E	43.782242° N	212.1
LZ42	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.835492° E	43.780164° N	211.0
LZ43	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.829164° E	43.778031° N	213.0
LZ44	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.807217° E	43.778253° N	212.0
LZ45	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.795677° E	43.779791° N	193.8
LZ47	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.757537° E	43.779987° N	213.9
LZ48	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.749684° E	43.777520° N	212.1
LZ49	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.738018° E	43.773719° N	219.0
LZ50	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.726033° E	43.777934° N	224.3
LZ51	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.731834° E	43.771734° N	220.6
LZ52	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.748040° E	43.769709° N	219.0
LZ53	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.754774° E	43.771480° N	216.7
LZ54	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.761333° E	43.773820° N	217.0
LZ55	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.781309° E	43.772985° N	221.1
LZ56	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.798274° E	43.773312° N	215.4
LZ57	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.823481° E	43.774973° N	205.8
LZ58	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.817420° E	43.768469° N	189.0
LZ59	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.808989° E	43.766482° N	205.1
LZ60	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.792896° E	43.762144° N	227.4
LZ61	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.785254° E	43.762374° N	225.0
LZ62	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.775571° E	43.766573° N	219.3
LZ63	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.754127° E	43.763543° N	221.2
LZ64	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.746648° E	43.762456° N	221.1
LZ65	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.735415° E	43.765531° N	223.6
LZ66	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.739701° E	43.755960° N	224.0
LZ67	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.747714° E	43.756410° N	215.9
LZ68	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.757231° E	43.754450° N	222.0
LZ69	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.765470° E	43.757108° N	226.0
LZ70	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.771760° E	43.759237° N	222.3
LZ72	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.754796° E	43.748806° N	221.0
LZ73	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.746426° E	43.750237° N	213.6
LZ74	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.740341° E	43.747759° N	221.7
LZ75	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.736523° E	43.744218° N	207.3
LZ76	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.748883° E	43.743524° N	222.0
LZ77	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.745828° E	43.739066° N	220.0
LZ78	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.736530° E	43.736687° N	203.6
LZ79	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.755896° E	43.736763° N	229.1
LZ80	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.760262° E	43.739966° N	229.2
LZ85	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.751708° E	43.732597° N	229.0
LZ95	Yes	VESTAS	V172-7.2-7,200	7,200	172.0	27.790484° E	43.769718° N	225.0