

Project:

Farma wiatrowa

# Brojce Gmina Brojce

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2012-03-13 21:50/2.7.490

ZVI - Standard ZVI summary

Calculation: Raport podstawowy - 21x3MW - V112 - Phase 1

## PROGNOZA ODDZIAŁYWANIA NA ŚRODOWISKO DO PROJEKTU ZMIANY STUDIUM UWARUNKOWAŃ I KIERUNKÓW ZAGOSPODAROWANIA PRZESTRZENNEGO DLA WYBRANYCH TERENÓW W GMINIE BROJCE

# Raport podstawowy

Przedsięwzięcie:

Farma Wiatrowa

**Brojce**  
**Gmina Brojce**  
**21 x 3,0MW**  
**/119m/ - 106,5dB**

Inwestor:

**FINADVICE FAIR ENERGY**  
**WIND DEVELOPMENT 1 Sp. z o. o.**  
**ul. Śniadeckich 17**  
**00-654 Warszawa**

Marzec 2012r.

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**BASIS - Project data overview****Calculation:** Raport podstawowy - 21x3MW - V112 - Phase 1

Country: Poland

**Maps**

Name Format Path

Brojce20000-dzialki Bitmap map D:\WindPro-Dane\\_Projekty\18. Brojce\1. Mapy\Brojce20000-dzialki.bmi

Brojce100000C Bitmap map D:\WindPro-Dane\\_Projekty\18. Brojce\1. Mapy\Brojce100000C.bmi

**Site center:** UTM WGS 84 Zone: 33 East: 524 527 North: 5 983 907**WTGs**

UTM WGS84 Zone: 33				WTG type								
	East	North	Z	Row data/Description	Valid	Manufact.	Type-generator	Power, rated	Rotor diameter	Hub height	Circle radius	
			[m]					[kW]	[m]	[m]	[m]	
1	522 736	5 986 050	24,5	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
2	523 368	5 985 961	25,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
3	524 806	5 987 264	30,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
4	524 440	5 986 687	30,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
5	524 893	5 986 935	30,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
6	524 245	5 986 073	30,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
7	523 831	5 985 098	29,5	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
8	523 840	5 984 755	25,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
9	524 900	5 984 860	30,3	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
10	524 719	5 984 518	35,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
11	520 891	5 981 679	26,3	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
12	520 986	5 981 356	30,2	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
13	525 204	5 982 754	32,5	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
14	525 299	5 982 431	35,7	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
15	525 434	5 981 980	37,5	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
16	525 533	5 981 655	35,7	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
17	525 254	5 980 842	37,5	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	500,0
18	522 695	5 979 690	35,0	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
19	525 079	5 980 498	36,9	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
20	525 031	5 980 149	32,5	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	
21	523 591	5 984 057	25,8	VESTAS V112-3.0 IC 3...	New	Yes	VESTAS	V112-3.0 IC-3 000	3 000	112,0	119,0	

**Site Data**

UTM WGS84 Zone: 33

	East	North	Z	Object name	For use in
			[m]		
A	525 269	5 982 539	34,1	WA mixed 34m-synth 119m 30jan2010	WAsP calculation

**Noise sensitive area**

UTM WGS84 Zone: 33

	East	North	Z	Object name	Noise limit	Distance demand	Type
			[m]		[dB(A)]	[m]	
A	523 777	5 987 264	20,0	Noise sensitive area: (1)	45,0	0	Area
B	525 571	5 985 570	29,4	Noise sensitive area: (2)	45,0	0	Area
C	523 107	5 984 891	30,0	Noise sensitive area: (3)	45,0	0	Area
D	525 201	5 983 609	30,9	Noise sensitive area: (4)	45,0	0	Area
E	528 251	5 984 528	27,5	Noise sensitive area: (6)	45,0	0	Area
F	528 486	5 983 727	36,9	Noise sensitive area: (7)	45,0	0	Area
G	528 515	5 981 329	37,5	Noise sensitive area: (8)	45,0	0	Area
H	524 482	5 981 798	30,0	Noise sensitive area: (9)	45,0	0	Area
I	526 013	5 980 733	33,5	Noise sensitive area: (10)	45,0	0	Area
J	523 887	5 982 002	16,5	Noise sensitive area: (11)	45,0	0	Area
K	520 935	5 986 076	25,0	Noise sensitive area: (12)	45,0	0	Area
L	520 682	5 982 446	17,3	Noise sensitive area: (13)	45,0	0	Area
M	521 479	5 982 197	31,6	Noise sensitive area: (14)	45,0	0	Area
N	523 567	5 979 905	32,5	Noise sensitive area: (15)	45,0	0	Area
O	523 366	5 978 805	35,0	Noise sensitive area: (16)	45,0	0	Area
P	523 195	5 980 613	34,9	Noise sensitive area: (17)	45,0	0	Area
Q	521 605	5 979 650	35,0	Noise sensitive area: (18)	45,0	0	Area

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**BASIS - Project data overview****Calculation:** Raport podstawowy - 21x3MW - V112 - Phase 1

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UTM WGS84 Zone: 33

East	North	Z	Object name	Noise limit	Distance	Type
			[m]	[dB(A)]	[m]	demand
R	523 346	5 984 699	32,5 Noise sensitive area: (19)	40,0	500	Area
S	520 626	5 982 430	17,0 Noise sensitive area: (20)	40,0	500	Area
T	519 758	5 979 549	32,0 Noise sensitive area: (21)	40,0	500	Area
U	521 447	5 979 018	30,0 Noise sensitive area: (22)	40,0	500	Area
V	522 225	5 978 834	34,7 Noise sensitive area: (23)	40,0	500	Area
W	522 359	5 978 870	34,5 Noise sensitive area: (24)	40,0	500	Area
X	522 907	5 979 007	34,9 Noise sensitive area: (25)	40,0	500	Area
Y	523 103	5 978 681	35,0 Noise sensitive area: (26)	40,0	500	Area
Z	523 956	5 979 000	35,0 Noise sensitive area: (27)	40,0	500	Area
AA	524 225	5 979 083	32,0 Noise sensitive area: (28)	40,0	500	Area
AB	524 021	5 978 664	29,1 Noise sensitive area: (29)	40,0	500	Area
AC	524 076	5 978 482	26,5 Noise sensitive area: (30)	40,0	500	Area
AD	524 259	5 978 454	25,5 Noise sensitive area: (31)	40,0	500	Area
AE	524 113	5 978 414	26,2 Noise sensitive area: (32)	40,0	500	Area
AF	524 183	5 978 374	25,8 Noise sensitive area: (33)	40,0	500	Area
AG	524 821	5 978 565	21,6 Noise sensitive area: (34)	40,0	500	Area
AH	525 975	5 989 171	24,3 Noise sensitive area: (35)	45,0	500	Area
AI	528 161	5 988 038	35,0 Noise sensitive area: (36)	45,0	500	Area
AJ	523 785	5 987 287	20,0 Noise sensitive area: (37)	45,0	500	Area
AK	520 971	5 986 052	25,0 Noise sensitive area: (38)	45,0	500	Area
AL	521 704	5 986 387	25,0 Noise sensitive area: (39)	45,0	500	Area
AM	523 120	5 984 836	30,0 Noise sensitive area: (40)	45,0	500	Area
AN	525 560	5 985 530	29,2 Noise sensitive area: (41)	45,0	500	Area
AO	525 136	5 983 683	30,4 Noise sensitive area: (42)	45,0	500	Area
AP	525 885	5 983 463	32,3 Noise sensitive area: (43)	45,0	500	Area
AQ	520 379	5 983 453	29,0 Noise sensitive area: (44)	45,0	500	Area
AR	527 967	5 984 540	26,2 Noise sensitive area: (45)	45,0	500	Area
AS	528 258	5 984 559	27,5 Noise sensitive area: (46)	45,0	500	Area
AT	528 751	5 983 470	35,0 Noise sensitive area: (47)	45,0	500	Area
AU	521 083	5 982 858	20,0 Noise sensitive area: (48)	45,0	500	Area
AV	521 471	5 982 172	31,5 Noise sensitive area: (49)	45,0	500	Area
AW	520 492	5 982 433	15,9 Noise sensitive area: (50)	45,0	500	Area
AX	522 832	5 982 334	30,0 Noise sensitive area: (51)	45,0	500	Area
AY	523 357	5 982 372	24,3 Noise sensitive area: (52)	45,0	500	Area
AZ	523 902	5 982 019	16,5 Noise sensitive area: (53)	45,0	500	Area
BA	524 505	5 981 830	30,0 Noise sensitive area: (54)	45,0	500	Area
BB	526 030	5 980 685	32,6 Noise sensitive area: (55)	45,0	500	Area
BC	528 682	5 981 237	38,0 Noise sensitive area: (56)	45,0	500	Area
BD	519 654	5 979 945	25,2 Noise sensitive area: (57)	45,0	500	Area
BE	519 740	5 979 337	32,5 Noise sensitive area: (58)	45,0	500	Area
BF	521 276	5 979 516	32,5 Noise sensitive area: (59)	45,0	500	Area
BG	521 726	5 979 640	35,0 Noise sensitive area: (60)	45,0	500	Area
BH	521 631	5 978 802	27,9 Noise sensitive area: (61)	45,0	500	Area
BI	522 083	5 978 945	35,3 Noise sensitive area: (62)	45,0	500	Area
BJ	523 545	5 978 640	35,0 Noise sensitive area: (63)	45,0	500	Area
BK	523 575	5 980 006	32,5 Noise sensitive area: (64)	45,0	500	Area
BL	525 080	5 979 516	26,2 Noise sensitive area: (65)	45,0	500	Area

**Shadow receptor**

UTM WGS84 Zone: 33

East	North	Z	Object name	Orientation	Length	Height	Height	Angle
			[m]	[°]	[m]	[m]	a.g.l.	[°]
A	525 506	5 985 541	29,1		0,0	3,0	2,0	1,0 90,0
B	523 693	5 987 236	20,0		0,0	3,0	2,0	1,0 90,0
C	520 988	5 986 057	25,0		0,0	3,0	2,0	1,0 90,0
D	523 103	5 984 885	30,0		0,0	3,0	2,0	1,0 90,0
E	525 180	5 983 581	30,8		0,0	3,0	2,0	1,0 90,0
F	524 507	5 981 815	30,0		0,0	3,0	2,0	1,0 90,0

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**UTM WGS84 Zone: 33**

	East	North	Z	Object name	Orientation	Length	Height	Height	Angle
								a.g.l.	
			[m]		[°]	[m]	[m]	[m]	[°]
G	523 880	5 981 999	16,5		0,0	3,0	2,0	1,0	90,0
H	525 987	5 980 738	34,0		0,0	3,0	2,0	1,0	90,0
I	528 485	5 983 730	36,9		0,0	3,0	2,0	1,0	90,0
J	528 255	5 984 522	27,5		0,0	3,0	2,0	1,0	90,0
K	528 520	5 981 310	37,5		0,0	3,0	2,0	1,0	90,0
L	521 429	5 982 155	30,7		0,0	3,0	2,0	1,0	90,0
M	520 764	5 982 512	17,8		0,0	3,0	2,0	1,0	90,0
N	522 585	5 982 278	30,0		0,0	3,0	2,0	1,0	90,0
O	523 593	5 979 905	32,5		0,0	3,0	2,0	1,0	90,0
P	523 145	5 980 551	33,5		0,0	3,0	2,0	1,0	90,0
Q	521 796	5 979 645	35,0		0,0	3,0	2,0	1,0	90,0

**Line objects****UTM WGS84 Zone: 33**

	East	North	Z	File	Purpose
			[m]		
A	524 024	5 985 894	0,0	D:\WindPro-Dane\_Projekty\18. Brojce\CONTOURLINE_ONLINEDATA_2.wpo	Height contour lines
B	524 338	5 982 686	0,0	D:\WindPro-Dane\_Projekty\18. Brojce\2. Brojce - Peter\01 DATA\05 ROU\Brojce rou base 1.4.map	Roughness lines
C	524 901	5 983 100	0,0	D:\WindPro-Dane\_Projekty\18. Brojce\2. Brojce - Peter\01 DATA\04 ORO\Brojce-oro final.wpo	Height contour lines

**Area objects****UTM WGS84 Zone: 33**

	East	North	Z	File
			[m]	
A	524 131	5 985 865	0,0	D:\WindPro-Dane\_Projekty\18. Brojce\ZVI_REGIONS_Farma wiatrowa - Brojce_0.w2r

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## BASIS - WTG distances

Calculation: Raport podstawowy - 21x3MW - V112 - Phase 1

### WTG distances

Z	Nearest WTG	Z	Horizontal distance	Distance in	
[m]	[m]	[m]	[m]	rotor diameters	
1	24,5	2	25,0	638	5,7
2	25,0	1	24,5	638	5,7
3	30,0	5	30,0	340	3,0
4	30,0	5	30,0	516	4,6
5	30,0	3	30,0	340	3,0
6	30,0	4	30,0	644	5,8
7	29,5	8	25,0	343	3,1
8	25,0	7	29,5	343	3,1
9	30,3	10	35,0	387	3,5
10	35,0	9	30,3	387	3,5
11	26,3	12	30,2	337	3,0
12	30,2	11	26,3	337	3,0
13	32,5	14	35,7	337	3,0
14	35,7	13	32,5	337	3,0
15	37,5	16	35,7	340	3,0
16	35,7	15	37,5	340	3,0
17	37,5	19	36,9	386	3,4
18	35,0	20	32,5	2 381	21,3
19	36,9	20	32,5	352	3,1
20	32,5	19	36,9	352	3,1
21	25,8	8	25,0	741	6,6



Scale 1:200 000

 New WTG

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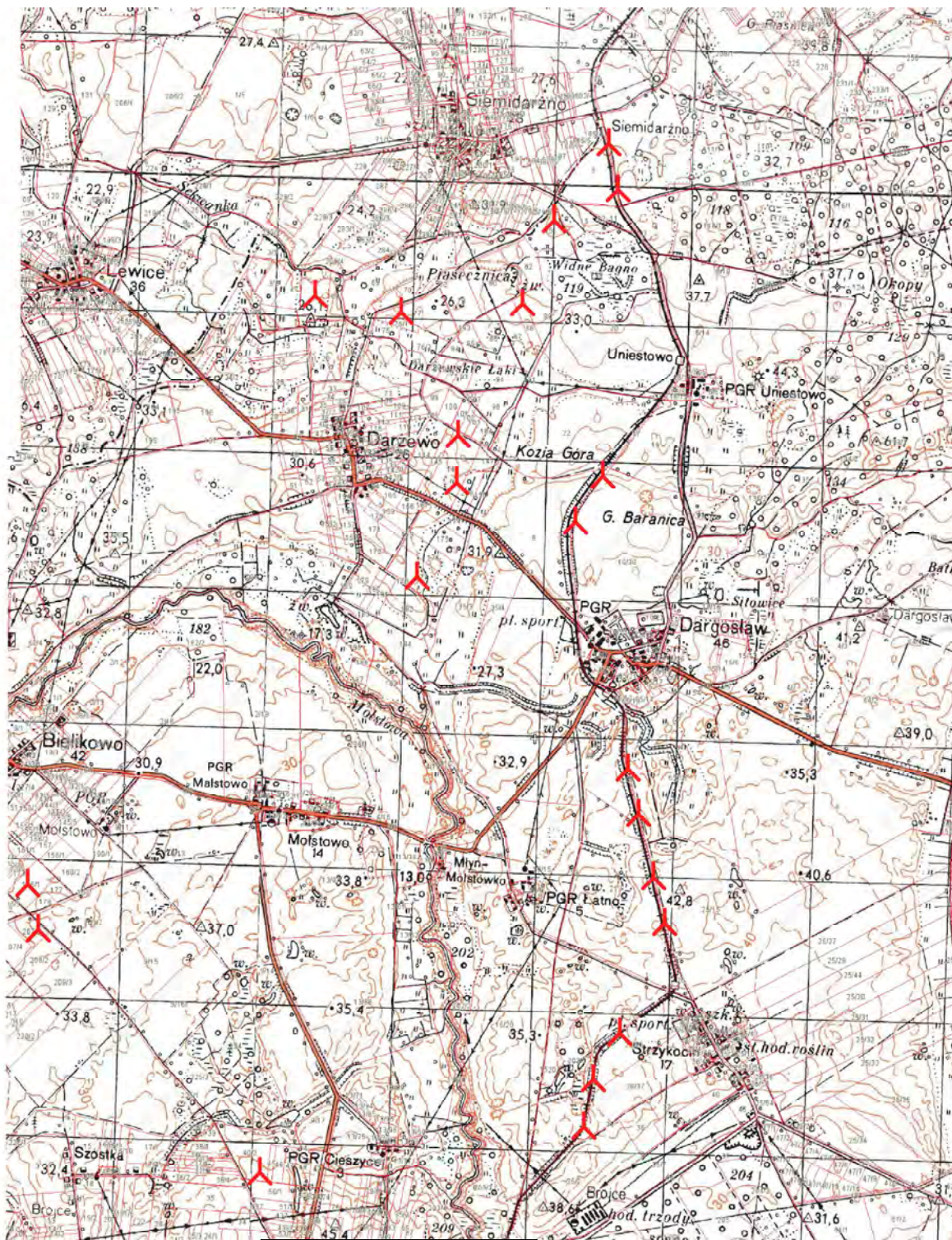
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### BASIS - Map

Calculation: Raport podstawowy - 21x3MW - V112 - Phase 1



Map: Brojce20000-dzialki , Print scale 1:45 000, Map center UTM WGS 84 Zone: 33 East: 523 212 North: 5 983 477

▲ New WTG