JOINT IMPLEMENTATION PROJECT DESIGN DOCUMENT FORM FOR SMALL-SCALE PROJECTS
Version 01.1 - in effect as of: 27 October 2006

CONTENTS

SECTION A. General description of the small-scale project

A.1. Title of the small-scale project:

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"Wind Premium" ("Premia Wiatrowa"): support for small wind farms in Poland.
Sectoral scope: energy industries (renewable energy)
Version 01
30th September, 2012

A.2. Description of the small-scale project:

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Project scenario

The project coordinator is Faber Consulting Sp. z o.o., the company that has been working in business consultancy for over 12 years. The firm also conducts advisory activity in the area of Carbon Finance and climate change. Due to the low share of renewable energy sources in Polish energy balance as well as obligations adopted from Kyoto Protocol, Faber Consulting decided to support the development of Polish renewable energy sector and energy efficiency by using financial mechanisms, such as Carbon Finance instruments. Wind Premium Programme is the first project prepared by Faber Consulting. The project concerns support of small wind installations in Poland, which, regarding their size, are less financial effective and meet several other barriers compared to larger facilities. Owners of some small wind farms, that were not granted subventions for their projects decided to join the Wind Premium Programme.

The project includes 5 small wind farms with aggregate power capacity of 9,1 MW, located in Łódzkie, Pomorskie and Wielkopolskie voivodeship. Each farm is owned by different entity, not related with other participants of the project.
Project includes following installations:
- Wind farm "Łebcz" with aggregate power capacity of 3,2 MW, located in Pomorskie voivodeship, consisting of 4 turbines 0,8 MW each, owned Eurowind Poland Sp. z o.o.;
- Wind farm "Wola Świniecka" located in Łodzkie voivodeship, consisting of one turbine of 0,8 MW power capacity, owned by FEN Investments S.A.
- Wind farm "Mierzyce" located in Łódzkie voivodeship, consisting of one turbine of 1,5 MW power capacity, owned by Green Systems Sp. z o.o.
- Wind farm "Miksztal" located in Łódzkie voivodeship, consisting of one turbine of 0,8 MW power capacity, owned by Wiatr Inwestycje Sp. z o.o. and Wspólnicy Spółka Komandytowa
- Wind farm "Graboszewo/Paruszewo" – two wind turbines with aggregate power capacity of 2,8 MW (2 MW and 0,8 MW), located in Wielkopolskie voivodeship, owned by Wielkopolskie Elektrownie Wiatrowe Sp. z o.o. The company exploits another wind turbine, that was granted subvention from EU funds. This turbine is not included in Wind Premium Programme.

Wind farms covered by the project were built in the period of 2006-2011. All of them were planned to gain financial support due to the low financial effectiveness of such investments in Poland, however, for some reasons, were not able to get such support. Covering these farms by the Joint Implementation Mechanism became possible after the new Act from 28th April 2011 concerning greenhouse gas emission trade system entered into force and changed the Act from 17th July 2009 concerning greenhouse gas emission and other substance management system. The new law enables to use the Joint Implementation Mechanism for projects that influence the emissions covered by the European Emission Trade System. Therefore, project participants decided to include their installations in Joint Implementation Mechanism. Regarding high administrative costs, the organiser (Faber Consulting Sp. z o.o.) proposed a joint project, which was accepted by all project participants.

Faber Consulting is the project organiser (coordinator), that, on behalf of the wind farm owners, organises and manages the process of financing the investment through the Joint Implementation Mechanism.

Expected outcome:
The aim of the project is to produce electricity using the wind power (renewable/clean energy source) and provide it to the national grid. It will result in replacing the corresponding amount of energy produced in conventional way (mainly using fossil fuels) with the green energy. The project will result in reduction of greenhouse gas emission, that is a side effect of burning fuels. It is estimated that, in the crediting period of 2008-2012, the proposed project activity will supply about 59 800 MWh of the electricity produced by wind turbines to the national grid (net, that means after deducting the energy received from the grid for installation's needs). It will result in CO2 emission reduction of about 48 600 Mg. In following years (another crediting period – if applied) it is planned to produce 21 660 MWh of the electricity (net) per year, which will result in CO2 emission reduction of about 17 587,9 Mg per year. Long-term result will be growth of renewable energy market in Poland by strengthening financial abilities of entities investing in this sector.

Technical description:

1. Wind farm „Łebcz"
   The farm consists of 4 ENERCON E-48 wind turbines – 0,8 MW each. Turbines are set on 76 meter high masts. Turbines rotor diameter is 48 meters. Turbines are connected to the grid with a voltage of 15 kV under the conditions set by Koncern Energetyczny ENERGA S.A. Construction of the wind farm ended in June 2007 and the production started in July 2007.
2. Wind farm "Wola Świniecka"
   The farm consists of 1 ENERCON E-53 wind turbine – 0,8 MW. Turbine is set on 72 meter high mast with total power station height of 99,7 meters. Turbine rotor diameter is 52,9 meters. Turbine is connected to the grid with a voltage of 15 kV under the conditions set by ENERGA-OPERATOR S.A. Construction of the wind farm ended in January 2010 and the production started in February 2010.
3. Wind farm "Mierzyce"
   The farm consists of 1 Fuhrlander FL-MD77 wind turbine – 1,5 MW. Turbine is set on 100 meter high mast and turbine rotor diameter is 77 meters. Turbine is connected to the grid with a voltage of 15 kV under the conditions set by PGE Dystrybucja Łódź - Teren S.A. Construction of the wind farm ended in November 2011 which was also when the production started.
4. Wind farm "Miksztal"
   The farm consists of 1 ENERCON E-53 wind turbine – 0,8 MW. Turbine is set on 72 meter high mast with total power station height of 99,7 meters. Turbine rotor diameter is 52,9 meters. Turbine is connected to the grid with a voltage of 15 kV under the conditions set by ENERGA-OPERATOR S.A. Construction of the wind farm ended in May 2010 and the production started in June 2010.
5. Wind turbines „Graboszewo/Paruszewo"
   Wind Premium Programme includes two from three turbines operated by Wielkopolskie Elektrownie Wiatrowe Sp. z o.o. The turbine that is not included in the Programme was granted subvention from EU funds. Turbines included in the Wind Premium Programme are: ENERCON E-82 – 2MW, set on 108 meter high mast, with rotor diameter of 82 meters and ENERCON E-53 – 0,8 MW, set on a 73 meter high mast, with rotor diameter of 52,9 meters. Turbines are connected to the grid with a voltage of 15 kV under the conditions set by ENERGA-OPERATOR S.A. All construction works connected with building the farm ended in September 2011, and the energy has been produced since August 2011.

Situation existing prior to the starting date of the SSC project

In Poland electricity is produced mainly in the process of burning fossil fuels. Realization of the project started in 2006 (construction of the first farm), and the structure of sources used for electricity production in Poland in year 2005 were as showed in the table below[1].

Lp.	Segment	Energy production in 2005 r. (GWh)	Production structure
1.	Total energy produced in Poland (including)	156 938	100,00%
1.1	Power plants (including)	148 359	94,53%
1.1.1	Thermal power plants (including)	144 832	92,29%
1.1.1.1	Burning hard coal	86 246	54,96%
1.1.1.2	Burning charcoal	54 865	34,96%
1.1.1.3	Burning gas	2 944	1,88%
1.1.1.4	Co-burning biofuels	777	0,50%
1.1.2	Hydro-electric power plants	3 527	2,25%
1.2	Industrial power stations (including)	8 090	5,15%
1.2.1	Thermal	7 457	4,75%
1.2.2	Renewable sources	633	0,40%
1.3	Other independent power plants	489	0,31%

Baseline scenario
According to methodology "AMS-I.D. Grid connected renewable electricity generation, Version 17.0" the baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid. [2]

A.3. Project participants:

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Party involved	Legal entity project participant (as applicable)	Please indicate if the Party involved wishes to be considered as a project participant (Yes/No)
Poland (host)	Eurowind Poland Sp. z o.o.; FEN Investments S.A.; Green Systems Sp. z o.o.; Wiatr Inwestycje Sp. z o.o. i Wspólnicy Spółka Komandytowa; Wielkopolskie Elektrownie Wiatrowe Sp. z o.o.; Faber Consulting Sp. z o.o.	No
Germany	Faber Consulting UG	No

[1] Biuletyn Urzędu Regulacji Energetyki, nr 3 (2006 r.)

[2] Approved consolidated baseline and monitoring methodology ACM0002, Version 12.2.0

A.4. Technical description of the small-scale project:

A.4.1. Location of the small-scale project:

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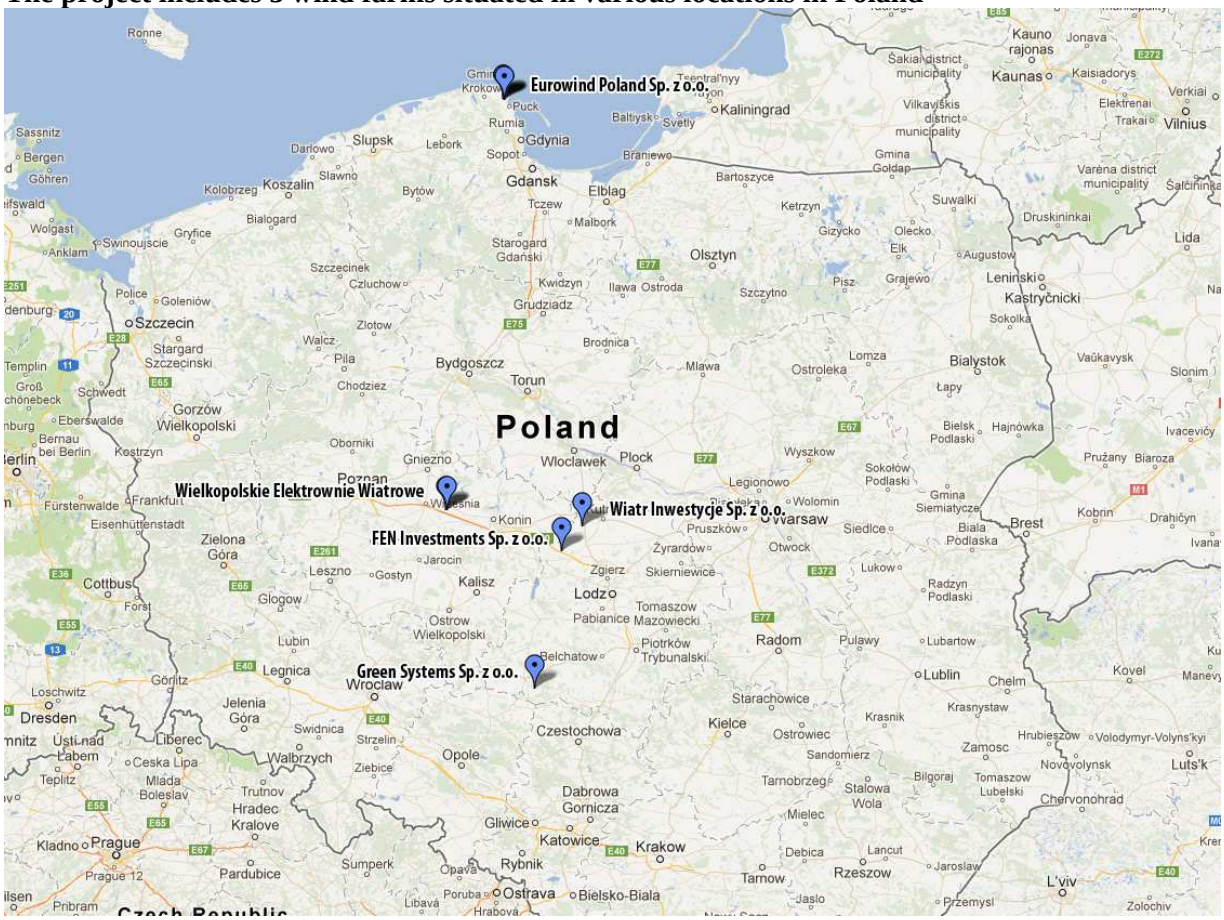
The project includes 5 wind farms situated in various locations in Poland



A.4.1.1. Host Party(ies):

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Poland

A.4.1.2. Region/State/Province etc.:

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Installation name	WF Łebcz	WF Wola Świniecka	WF Mierzyce	WF Miksztal	WF Graboszewo/Paruszewo
Voivodeship	pomorskie	łódzkie	łódzkie	łódzkie	wielkopolskie
Powiat/district	pucki	łęczycki	wieluński	kutnowski	słupecki

A.4.1.3. City/Town/Community etc.:

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Installation name	**WF Łebcz**	**WF Wola Świniecka**	**WF Mierzyce**	**WF Miksztal**	**WF Graboszewo/Paruszewo**
Municipality	Puck	Świnice Warckie	Wierzchlas	Nowe Ostrowy	Strzałkowo
City	Łebcz	Wola Świniecka	Mierzyce	Miksztal	Graboszewo, Paruszewo

Plot no.	421/11	356	595, 596/3, 597/2, 598/1, 598/2, 599	188	Grabowszewo premise: 58/1, Paruszewo premise: 86/1

A.4.1.4. Detail of physical location, including information allowing the unique identification of the small-scale project:

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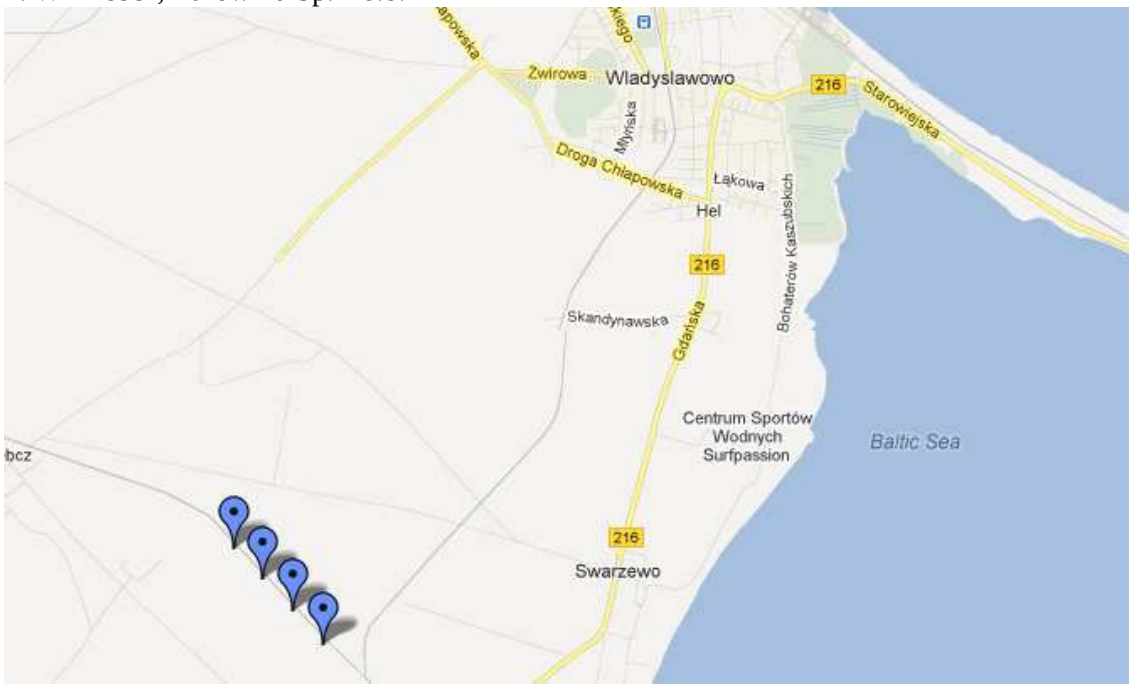
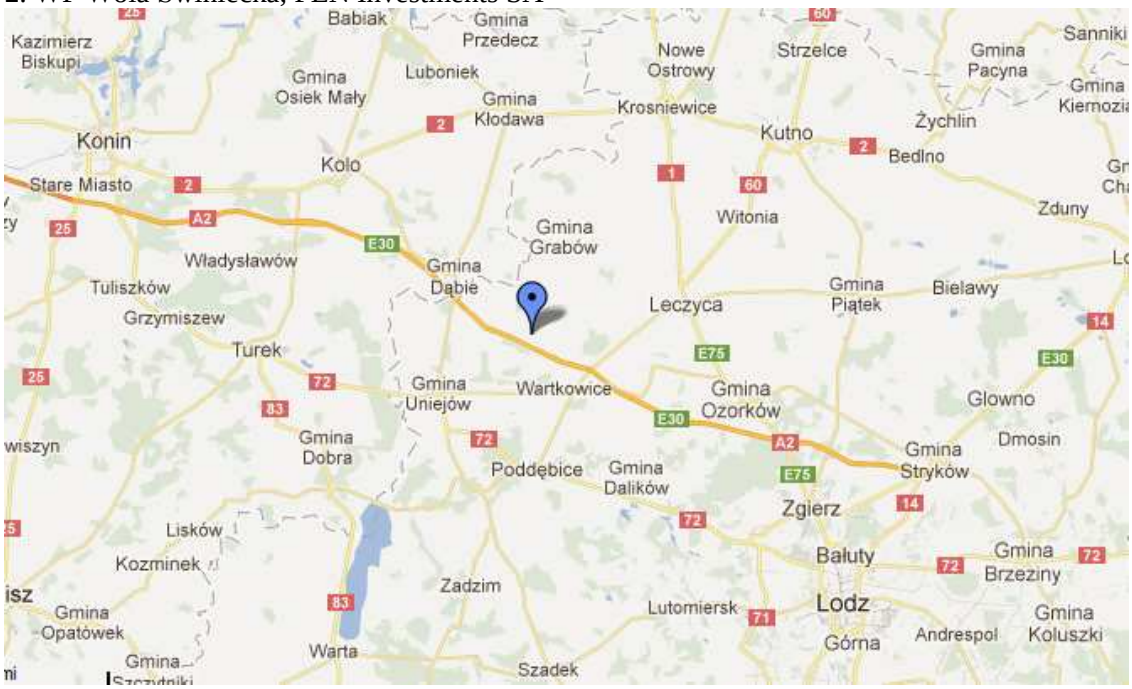
Locations of all wind turbines are shown below

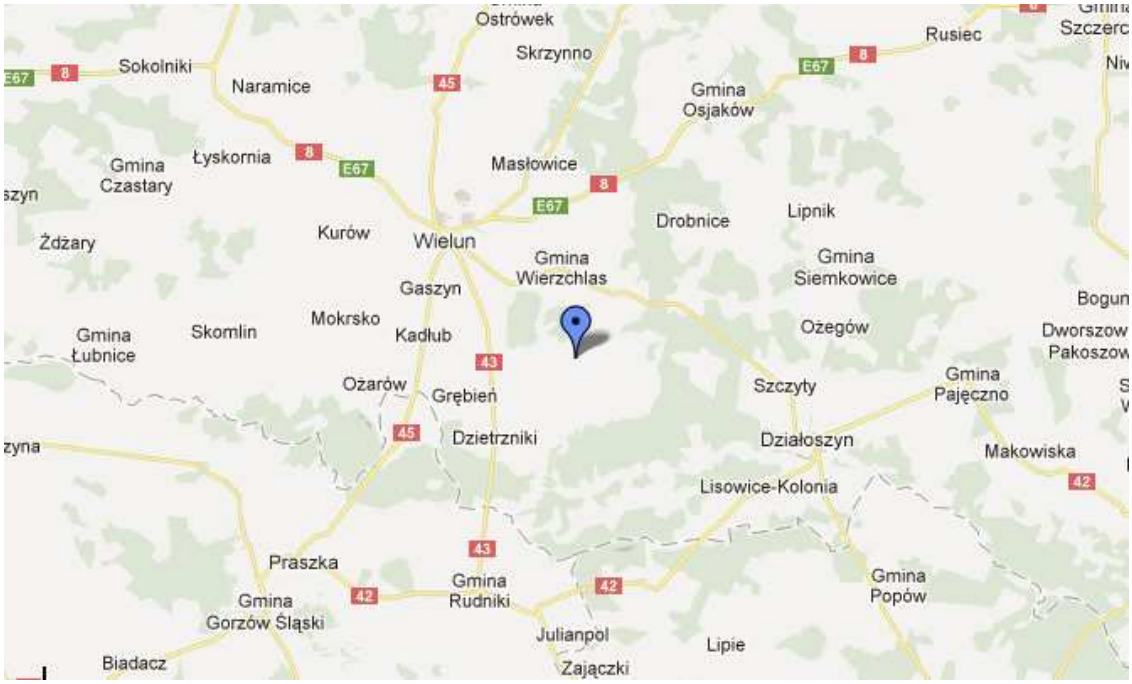
1. WF Łebcz, Eurowind Sp. z o.o.



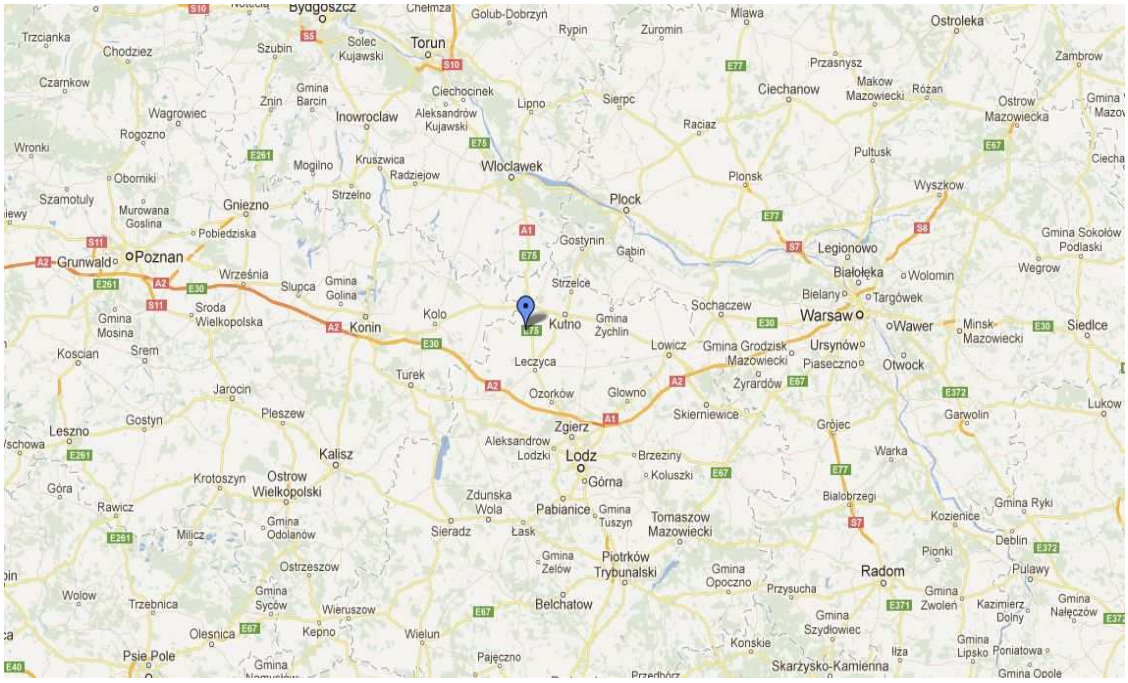
2. WF Wola Świniecka, FEN Investments SA



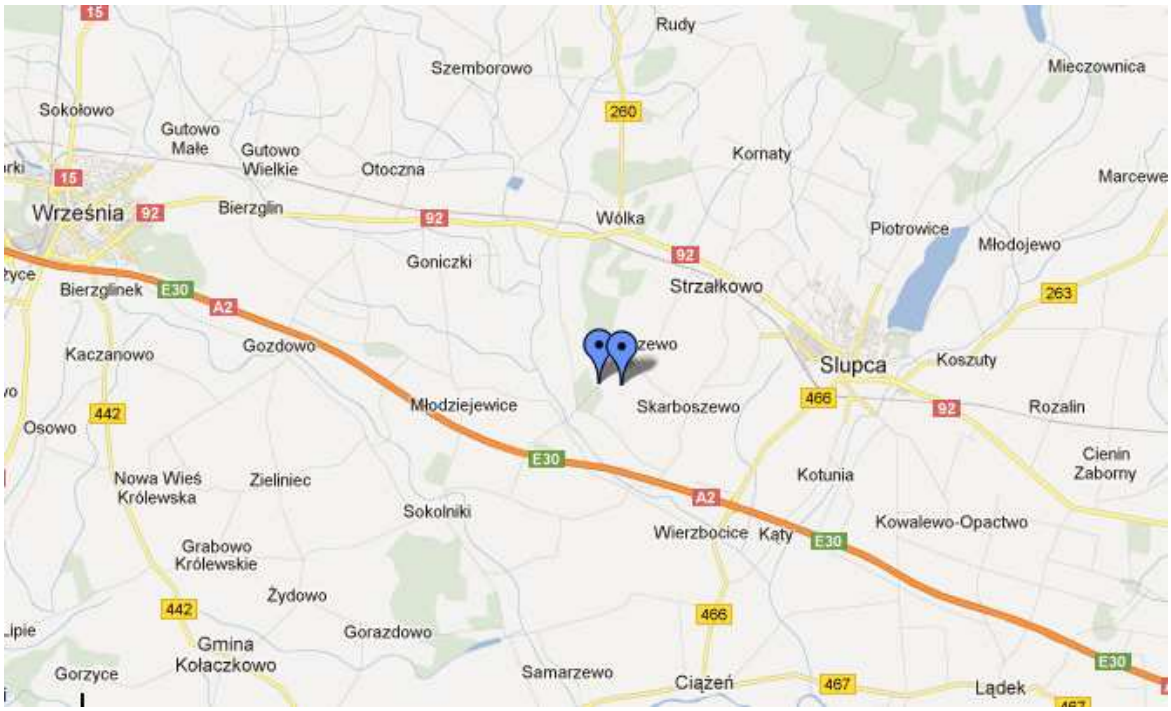
3. WF Mierzyce, Green Systems sp. z o.o.



4. WF Miksztal, Wiatr Inwestycje Sp. z o.o. i Wspólnicy Spółka Komandytowa



5. WF Graboszewo, Paruszewo, Wielkopolskie Elektrownie Wiatrowe sp. z o.o.



GPS coordinates of individual wind turbines

	E			N		
Name	**dd**	**mm**	**ss.ss**	**dd**	**mm**	**ss.ss**
WF Łebcz						
Turbine No. 1	18	21	31,26	54	45	46,71
Turbine No. 2	18	21	42,01	54	45	40,18
Turbine No. 3	18	21	53,02	54	45	33,40
Turbine No. 4	18	22	04,24	54	45	26,49
WF Wola Świniecka						
Turbine No.1	18	57	02	52	01	43
WF Mierzyce						
Turbine No. 1	18	40	37,77	51	09	29,51
WF Miksztal						
Turbine No. 1	19	14	54,24	52	18	9,29
WF Graboszewo/Paruszewo						
Turbine No. 1 (Graboszewo)	17	46	19,9	52	16	57,25
Turbine No. 2 (Paruszewo)	17	46	53,50	52	16	54,54

A.4.2. Small-scale project type(s) and category(ies):

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Type: Renewable energy projects with a maximum output capacity of up to 15 megawatts (MW)
Category: Grid connected renewable electricity generation

The Project includes five wind farms constructed as new plants (Greenfield type projects) with aggregate power capacity of 9,1 MW. This project includes renewable energy sources connected to the grid with a maximum output capacity of up to 15 MW, therefore it meets all the requirements of small-scale projects and is in accordance with the requirements of methodology "AMS-I.D. Grid connected renewable electricity generation, Version 17.0.
In case of potential change of the project scope in the crediting period (such as adding new generation capacities), Faber Consulting assures that aggregated power for all project turbines will not exceed 15 MW during the whole crediting period.

A.4.3. Technology(ies) to be employed, or measures, operations or actions to be implemented by the small-scale project:

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The project in all 5 locations includes the implementation of modern wind power plant technologies.
Basic elements of each plant is:
- wind power station
- transformer station
- connection to the grid
- metering equipment
- supporting infrastructure (access road, assembly site, etc.)

The table below shows technical specification for the most important technical elements for each location.

Installation name	FW Łebcz	FW Wola Świniecka	FW Mierzyce	FW Miksztal	FW Graboszewo/Paruszewo
Number of turbines	4	1	1	1	2
Turbine power	0,8	0,8	1,5	0,8	2 (Paruszewo) 0,8 (Graboszewo)
Farm power	3,2	0,8	1,5	0,8	2,8
Turbine type	Enercon E-48	Enercon E-53	Fuhrlander FL-MD77	Enercon E-53	Enercon E-82, E-53
Mast height	76 m	73 m	100 m	73 m	E-53: 73 m, E-82: 108 m
Rotor diameter	48 m	52,9 m	77 m	52,9 m	E-53: 52,9 m, E-82: 82 m
Grid connection	SN-15 kV	SN-15 kV	SN-15 kV	SN-15 kV	SN-15kV

The most important element of each wind farm is the wind power generator. The most important data of wind turbines installed in each location are presented below. All turbines installed are new devices.

	Enercon E-48	Enercon E-53	Enercon E-82	Furhlander FL-MD77
Rated power:	800 kW	800 kW	2,000 kW	1,500 kW
Rotor diameter:	48 m	52.9 m	82 m	77.0 m
Hub height:	50 m / 55 m / 60 m / 76 m	60 m / 73 m	78m/85m/98m/108m/138m	61,5/85/100/114,5m
Wind class (IEC):	IEC/NVN IIA	IEC/NVN Class S	IEC/NVN IIA	IEC II/IIA/IIIA
Rotational direction	Clockwise	Clockwise	Clockwise	Clockwise
No. of blades:	3	3	3	3
Swept area:	1,810 m²	2,198 m²	5,281 m²	4,657 m2
Blade material:	GRP (epoxy resin); integrated lightning protection	GRP (epoxy resin); integrated lightning protection	GRP (epoxy resin); integrated lightning protection	glas-fibre reinforced plastic, epoxy resin
Rotational speed:	16 - 31 rpm	12 - 28.3 rpm	6 - 17.5 rpm	10-19/rpm
Generator:	ENERCON direct-drive annular generator	ENERCON direct-drive annular generator	ENERCON direct-drive annular generator	Type asynchronous, double fed induction
Yaw control:	Active via adjustment gears, load-dependent damping	Active via adjustment gears, load-dependent damping	Active via adjustment gears, load-dependent damping	4 electric gear motor(s)
Cut-out wind speed:	28 - 34 m/s (with ENERCON storm control)	28 - 34 m/s (with ENERCON storm control)	28 - 34 m/s (with ENERCON storm control)	speed 20.0 m/s
Remote monitoring:	ENERCON SCADA	ENERCON SCADA	ENERCON SCADA	Fixed network/radio/VABERA

The table below shows the most important investment stages in case of each wind farm included in the project.

Installation name	FW Łebcz	FW Wola Świniecka	FW Mierzyce	FW Miksztal	Graboszewo/ Paruszewo
Power grid connection terms/conditions	10.08.2006	27.03.2007	17.06.2009	11.05.2007	18.05.2009
Administrative decision for location	04.10.2006, Decision on location of a public investment	22.04.2008, Zoning decision	05.01.2010, Zoning decision	12.02.2007 information about investment location	04.11.2009, Decision on location of a public investment
Analysis of the environmental impact	07.2006	01.2008	16.06.2010	04.2007	03.2009
Decision on environmental considerations of a project	25.09.2006	18.03.2008	16.09.2009	01.10.2007	09.07.2009
Construction permit	08.03.2001; 24.10.2005r; 28.11.2006	05.08.2008; 05.01.2009	08.04.2010	25.09.2008; 10.03.2010	07.04.2010
Contract with the supplier/contractor	16.02.2006	14.05.2007	15.04.2011	04.03.2008; 09.02.2010	30.03.2011
Commencement of construction works	04.03.2003	26.09.2009	10.06.2011	05.12.2008	08.04.2011
Connection agreement	31.08.2006	09.03.2009	30.09.2009	22.05.2007; 22.04.2010	27.08.2008 (z późniejszymi aneksami)
Agreement for sale of energy	15.01.2007	23.07.2009	24.10.2011, 29.02.2012	28.09.2010	24.02.2011.
No. of energy sale contract	1/1/OZE/GEE/2007	W/HH/46/2009/1	MWT/EE/R/2011/09/42 , MWT/EPM/2011/12/63	W/HH/290/2010/1	W / HH / 410 / 2011 /1
Completion of construction works	25.06.2007	01.2010	10.11.2011	14.05.2010	21.09.2011
Installation use permit/Notification of construction completion	28.06.2007	18.01.2010, 17.02.2010	29.11.2011	09.06.2010	10.10.2011, 19.10.2011,
Licence for electricity generation	06.07.2007	25.03.2010	05.12.2011	09.09.2010	15.11.2011, 02.02.2012
Production launch	07.2007	02.2010	11.2011	06.2010	08.2011

A.4.4. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed small-scale project, including why the emission reductions would not occur in the absence of the proposed small-scale project, taking into account national and/or sectoral policies and circumstances:

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The project includes 5 small wind farms meant to produce electricity. The production is conducted using wind power, therefore without any greenhouse gas emissions. Produced energy is delivered to the national grid, which means that it replaces energy produced in a conventional way – mainly by burning fossil fuels, which is the source of greenhouse gas emission. According to National Centre for Emissions Management (KOBiZE) the emission factor for electricity production in Poland is currently 0,812 Mg CO2/MWh. It means that every MWh of net energy provided to the grid as a result of the project can reduce carbon dioxide emission by 0,812 tonnes.

The project is in line with goals of national policy in terms of power issues. The main document on national level in this matter is “Polish energy policy till 2030”. This document was accepted by Council of Ministers on 10th November 2009. This document sets goals of Polish power industry, that should be

achieved till 2030. In terms of renewable energy, national policy indicates growth of share of renewable energy sources in final energy use in 2020 to at least 15% and assumes further growth in following years.
According to data published in 2005 by Energy Regulatory Office, national consumption of electricity amounted to 144 838 GWh, which indicates that energy produced by renewable sources covered only 0,4% of total electricity demand that year. Therefore, conclusion is that proposed project activity will contribute to achieving goals of national policy regarding development of renewable energy sources. The project contributes to reduction of greenhouse gas emission. The level of reduction is estimated for 48 600 Mg CO2 in 2008-2012 period, and in 2008-2020 it is estimated for 189 300 Mg CO2. Without the project, the estimated emission reduction would not be reached. In Poland, electricity is produced mainly in the process of burning fossil fuels. In 2005 about 90% of produced energy was generated from coal. Without proposed project activity, the energy produced by wind turbines included in the project, would have to be produced by energy system, mainly through burning coal, which is entailed with higher greenhouse gas emission.

A.4.4.1. Estimated amount of emission reductions over the crediting period:

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	Years
Length of the crediting period 2008-2012	5
Year	Estimate of annual emission reductions in tonnes of CO_2 equivalent
Year 2008	6 321
Year 2009	5 723
Year 2010	7 195
Year 2011	11 727
Year 2012	17 588
Total estimated emission reductions over the crediting period (in tonnes of CO_2 equivalent)	48 554
Annual average of estimated emission reductions over the crediting period (in tonnes of CO_2 equivalent)	9 710

If further agreements regarding Joint Implementation Mechanism are concluded, the project activity will lead to emission reduction in following years as estimated below.

	Years
Length of the crediting period 2013-2020	8
Year	Estimate of annual emission reductions in tonnes of CO_2 equivalent
Year 2013	17 588
Year 2014	17 588
Year 2015	17 588
Year 2016	17 588
Year 2017	17 588
Year 2018	17 588
Year 2019	17 588
Year 2020	17 588
Total estimated emission reductions over the	140 704

crediting period (in tonnes of CO_2 equivalent)	
Annual average of estimated emission reductions over the crediting period (in tonnes of CO_2 equivalent)	17 588

A.4.5. Confirmation that the proposed small-scale project is not a debundled component of a larger project:

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Proposed project "Wind Premium" is not a debundled component of a larger project. None of installation included in the project is a component of another project included in Joint Implementation Mechanism.

A.5. Project approval by the Parties involved:

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Letters of Approval from Investing party and Host party will be obtained by project coordinator in a time limit, that is defined by both countries' regulations.
Investing party (Federal Republic of Germany) Letter of Approval will be obtained after final preparation and affirmative assessment of project documentation.
According to Polish law, the condition to obtain the Letter of Approval from the Minister of Environment is presenting the Letter of Approval issued by the Investing Party. As a result the Letter of Approval from the Host Party will be obtained after Federal Republic of Germany issues its Letter of Approval for the project.

SECTION B. Baseline

B.1. Description and justification of the baseline chosen:

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Step 1. Indication and description of the approach chosen regarding baseline setting

According to document "Guidance on criteria for baseline setting and monitoring", an accepted CDM methodology: „Grid connected renewable electricity generation" (version 17.0) was used to determine the baseline level. This methodology was applied in its totality to the project.
This methodology is applicable to project activities that:
- supply electricity to a national or regional grid from renewable sources, such as wind farms;
- are executed at a site where there was no renewable energy power plant operating prior to the implementation of the project; greenfield plant;
- have a maximum output capacity of up to 15 MW.

Reasons to use AMS-I.D. methodology are as follows:
- The Wind Premium project consist of plants generating energy from renewable sources. The aim of the project is to produce electricity using wind power and to supply it to the national grid;
- each wind power plant included in the project was executed at a site where there was no renewable energy power plant operating before, which means they are greenfield type investments;
- aggregated power for the whole Wind Premium project is lower than 15 MW.

The Wind Premium project meets the conditions for the application of AMS-I.D. methodology, therefore this methodology was used to set the baseline for this project.

Step 2. Application of the approach chosen

According to methodology "Grid connected renewable electricity generation" (version 17) in the baseline scenario the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants. In order to estimate the baseline level in reference to this document, according to point 11, quantity of net electricity supplied to the grid as a result of the project and CO2 emission factor were used. According to point 12b of the methodology, the emission factor used for calculating the baseline level for the project was the indicator of emission of carbon dioxide for electricity production in Poland published by National Centre for Emissions Management (KOBiZE). This indicator is currently set at 0,812 Mg CO2/MWh. KOBiZE states that the emission factor was calculated based on data both for emission and production of electric energy in the period of 2008 – 2010, due to the fact that it was the latest set of complete data available. Therefore, the indicator was used for calculating the baseline level for the project for the whole period of 2008-2012. In case of ERU generated after 2012, the latest value of the factor published by KOBiZE will be used for calculations (if available).

B.2. Description of how the anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the small-scale project:

>>

Step 1. Indication and description of the approach applied

According to the document „Guidance on criteria for baseline setting and monitoring" (version 03), the approved methodology CDM AMS-I.D („Grid connected renewable electricity generation" (version 17.0)) can be applied in the Wind Premium project.

According to methodology CDM AMS-I.D project participants should apply general guidelines to SSC CDM methodologies as well as information on additionality.

According to the annex "Attachment A of Appendix B" (version 08) project participants should demonstrate, that the project meets certain barriers. The Wind Premium project meets both investment and technological barriers, which indicates that there are more realistic alternatives than the proposed project activity, that lead to higher emissions. Barriers for the project were analyzed based on "Tool for the demonstration and assessment of additionality" (version 6.0.0).

Step 2. Application of the approach chosen

Additionality in the Wind Premium Project is being presented based on „Tool for the demonstration and assessment of additionality" (version 6.0.0) , in following steps.

Step 1. Identification of alternatives to the project activity consistent with current laws and regulations

Sub-step 1a**. Defining alternatives to the project activity**

Realistic and credible alternatives to the project activity for project participants (or similar investors), comparable with proposed project are:

- alternative I: The proposed project activity undertaken without being registered as a JI project activity
- alternative II: Continuation of the current state – energy is produced by existing power plants
- alternative III: Another project that uses renewable sources, other than wind

Sub-step 1b. **Consistency with mandatory laws and regulations**

Above listed alternatives are in line with obligatory law and applicable regulation requirements in Poland.

The basic regulation of electricity market in Poland is Energy Law from 10th April 1997 with further changes. The Act defines renewable energy sources and treats producers of such energy as energy companies, just like companies that produce energy from other sources including fossil fuels. As renewable energy sources the Act indicates energy of the wind, solar radiation, geothermal, waves,

ocean currents and tides, river slopes, biomass, landfill gas, as well as biogas produced from sludge or from anaerobic digestion of vegetable and animal remains. The Act have also introduced a subsidy system for renewable energy sources in the form of certificates (property rights) that prove that the energy is produced using renewable sources (so called: green certificates). Green certificates are supposed to increase financial effectiveness of investments in renewable energy.
Considering the abovementioned information, the alternatives I and III are treated equally. The green certificate system does not reflect the differences between particular renewable energy sources in terms of cost effectiveness and the support is conducted by gaining additional revenues counted in relation to the amount of energy produced from renewable sources.

Nevertheless it is important to state that all considered alternatives can be classified as realistic, credible and possible in relation to proposed project.

Step 2. Investment analysis
This step is ignored due to submitting additionality proofs using barrier analysis.

Step 3. Barrier analysis

Sub-step 3a. **Identify barriers that would prevent the implementation of the proposed JI project activity:**

Market barriers related to the specific character of renewable energy market and the specific character of wind as energy source
Polish regulations promoting production of energy from renewable sources were initiated by Energy Law from 10th April 1997. Development of Polish support system for renewable energy is based on 2 pillars:

- purchase obligation of specified energy quotas from renewable sources by energy companies, that are engaged in trading or transferring and distribution (Minister of Economy regulation from 15th December 2000 concerning obligation to purchase electricity from unconventional and renewable sources or produced in cogeneration with heat, as well as heat from unconventional and renewable sources and scope of this obligation; Dz. U. No. 122, pos. 1336)
- system of energy origin certificates (Minister of Economy regulation from 14th August 2008 concerning detailed scope of obligation to gaining and surrendering of origin certificates, payment of substitute fee, purchase of electricity and heat produced by renewable energy sources as well as obligation to confirm data concerning the amount of electricity produced in renewable energy source; Dz. U. from 2008, No. 156, pos. 969), that should ensure additional revenues for producers of renewable energy.

The purpose of the support system (green certificates) is the development of renewable energy industry and meeting international obligations concerning greenhouse gas reductions and the share of green energy in Polish energy balance.

The table bellow presents mandatory share of electricity from unconventional and renewable sources in total annual sales of electricity of particular energy company (in the first version and after addition changes).

Year	Version	Version	After changes	After changes	After changes	After changes

	from 15.12.2000	from 30.05.2003	from 9.12.2004	from 19.12.2005	from 3.11.2006	from 14.08.2008
2001	2,4%	-	-	-	-	-
2002	2,5%	-	-	-	-	-
2003	2,65%	2,65%	-	-	-	-
2004	2,85%	2,85%	-	-	-	-
2005	3,1%	3,1%	3,1%	3,1%	-	-
2006	3,6%	3,6%	3,6%	3,6%	-	-
2007	4,2%	4,2%	4,3%	4,8%	5,1%	-
2008	5,0%	5,0%	5,4%	6,0%	7,0%	7,0%
2009	6,0%	6,0%	7,0%	7,5%	8,7%	8,7%
2010	7,5%	7,5%	9,0%	9,0%	10,4%	10,4%
2011	7,5%	-	9,0%	9,0%	10,4%	10,4%
2012	7,5%	-	9,0%	9,0%	10,4%	10,4%
2013	7,5%	-	9,0%	9,0%	10,4%	10,9%
2014	7,5%	-	9,0%	9,0%	10,4%	11,4%
2015	7,5%	-	-	-	-	11,9%
2016	7,5%	-	-	-	-	12,4%
2017	7,5%	-	-	-	-	12,9%

When analyzing the data it is important to state that required share of green energy is rising both in subsequent versions of regulations and subsequent years. It is worth pointing out that Polish legislation does not distinguish between particular renewable energy sources. The support system is working in the same way in case of both wind farms and other sources, such as: hydroelectric, biogas or biomass power stations. The system does not reflect the differences between particular renewable energy sources in terms of cost effectiveness. Wind energy is however strongly dependant on atmospheric conditions. Energy production is conducted only in certain conditions. Mainly (with currently used technology), wind turbines produce energy when the wind speed is from 3m/s to 25m/s, however the full power is achieved only when the wind speed reaches certain level (i.e. 12m/s). Energy production in wind plants is a function of time and wind strength, which means that it is mostly independent (uncontrollable) from operating entity and is periodical and unpredictable.
In case of hydroelectric power station the fuel for producing energy is available practically the whole time. In case of other renewable energy sources, such as biomass or biogas, energy production is conducting by burning raw materials/fuels (biomass or biogas) supplied to the technological line by operating entity. Energy production in that case is mostly (omitting technical breaks or misfortunes, that also concerns wind farms) dependent on operating entity. As a result there is a significant difference in productivity of particular sources. According to report created by Ernst & Young in cooperation with the Polish Wind Energy Association, the average time of installed power usage is:

- 2.300 hours per year in case of land wind farms;
- 4.000 hours per year in case of hydroelectric power stations;
- 6.000 hours per year in case of agricultural biogas plants;
- 8.000 hours per year in case of biomass energy.

As showed above the productivity of wind energy plants is significantly lower than other renewable energy sources. Additionally it should be noted, that the energy produced from wind is quite unpredictable. Therefore, under the current support system of renewable power industry, wind farms face the risk of unpredictability thus the risk of losses.

This barrier favours the alternative scenario II (continuation of current state) and III (another project that uses renewable sources, other that wind).

What's more, on the day of preparing this document, regulations concerning required share of energy from renewable sources and energy origin certification system includes period up to 2017. Currently a new system is being created, that will come into force with the new Act on renewable energy sources. This Act is under development, therefore it is hard to assess its impact on identified barriers today.

Technological barriers

The most significant barrier for development of wind power industry, thus installations included in Wind Premium Programme is bad condition of electroenergetic grid. According to data presented in study entitled: „Condition of national electroenergetic system" (Ph. D. Zygmunt Maciejewski, Energy Policy, Tom 12, Notebook 2, 2001, PL ISSN 1429-6675) level of depreciation of fixed assets in national electroenergetic system in Poland is on average:

- 73% for power stations
- 51% for industrial grids
- 59% for distribution grids
- 63% for thermal grids

According to this study, the average age of grid assets in the national grid is about 40 years, which means that part of these assets is close to technical wear. This situation causes threat for the system stability and real risk of breakdown.

The author states in conclusion: "The necessity of greenhouse gas emission reduction and obligations to developing dispersed electricity production sources, based mainly on renewable sources, forces the urgent completion of vast grid investments, that would enable to fulfill the obligations accepted by Poland. Current technological condition as well as age of power grid in Poland, without substantial investments in their development and modernization, questions the reality of fulfilling the requirements regarding renewable energy sources accepted by Poland. Furthermore, without taking determined actions leading to modernization and restoration of exploited grids on every voltage level, in short period of time, Polish power grid will become highly vulnerable for breakdowns and inconsistent with expectations set in Polish Energy Policy till 2030"[3]

Bad technological condition of the grid has following consequences:

1. Possibilities of connecting new sources to the grid are highly limited, and the connection itself requires significant financial outlay. In some cases energy companies refuse to connect new plants to the grid due to the lack of technical possibilities. Furthermore, they try to transfer the costs of new infrastructure on wind farms' owners through high commissions for issuing the power grid connection terms. Those barriers do not concern sources already connected to the grid, therefore they prefer scenario II: continuation of current state.
2. Due to the high breakdown risk, it is normal that the energy distribution contracts between energy producer and grid operator put limits on the liability scope of the grid operator in case of the system breakdown. Such limits are placed in contracts of all participants of the Wind Premium Programme. Therefore there is a risk that in case of the grid breakdown (which in the state of bad technical grid condition is a realistic scenario), energy produced in wind farms will not be received. According to study "Polish Wind Power Industry" (TPA Horwath, Domański Zakrzewski Palinka Office, Polish Information and Foreign Investment Agency, Polish Wind Energy Association) payback period of most medium and big wind farms (a dozen or so MW and more) is from 7 to 10 years. Taking into consideration other projects from outside this group (extreme) payback period expands from 5 to 12 years. It is important to state that with the increase of wind farm size, the investment costs for 1 MW as well as operating costs per 1 MWh are decreasing, which means that with the increase in the wind farm

[3] Ph. D. Zygmunt Maciejewski, „Condition of national electroenergetic system", Energy Policy, Tom 12, Notebook 2, 2001, PL ISSN 1429-6675

size increases the effectiveness of the investment. Considering this and the fact, that the Wind Premium project covers wind farms with the power capacity below 5 MW, it should be noted that those farms are among the least effective installations. In reference to that and the instability of wind energy described earlier, refusal to receive the energy due to the grid breakdown may be a threat for financial situation of companies running wind farms, and, in a result, cause the termination of their activity.
Technological barriers concern all the energy sources connected to the grid, however bankruptcy risk due to the pause of energy sale is much bigger in case of wind farms than traditional sources (traditional power plants) or other renewable energy sources (hydroelectric, biomass, biogas) on account of instability and unpredictability of energy production in wind farms. This barrier makes the alternative scenario II (continuation of current state) and the scenario III (another project that uses renewable sources, other that wind) the favoured scenarios.

Legal and regulatory barriers
One of important barriers for wind energy development is constantly changing law. All legal documents regarding construction and functioning of a wind farm (Building Code, Energy Law, Environmental Law, Act on spatial development planning) have been changed and corrected repeatedly. Additionally it has to be remembered that Act sets frameworks of mechanisms and procedures, and to come into force the new law requires implementing regulations, that are often issued with delay and changed afterwards.
Those legal and regulatory barriers are the source of instability in activities in the field of wind energy. They cause a significant risk for investors and operators of wind farms as well as other renewable energy sources.
The most relevant matters for participants of the Wind Premium Programme are:

- obligation of energy companies to purchase the energy produced from renewable sources
- long term stable support system, which takes into account the difference between specific sources of energy in terms of effectiveness.

On account of administrative procedures, investing in wind farms is a long-lasting and expensive process. According to the report from November 2011, called: “Polish Wind Power Industry” (TPA Horwath, Domański Zakrzewski Palinka Office, Polish Information and Foreign Investment Agency, Polish Wind Energy Association), the whole process of preparing and building a wind farm in Poland takes on average 4 to 7 years. The implementation costs (according to the report) are 6,95 million zł/MW. This study states that the average payback period from the investment in a wind farm in Poland is 9 years. Considering the duration of the investment process and the average payback period, the implementation of a wind farm project requires from 13 to 16 years of system stability. Lack of such stability causes risk for profitability of wind farm operators. Such barriers do not concern conventional sources already connected to the grid, therefore the favoured scenario is scenario II: continuation of current state.

Currently, the new Act on renewable energy sources is under development. It is supposed to change the rules and regulations concerning renewable energy market, including regulations taking into account the effectiveness of the source. As of today there are still disputes over possible impact of the Act on renewable energy market, and until the Act comes into force it is hard to assess its influence. Ongoing disputes show that problems may occur due to inaccuracy of specific regulations.

Sub-step 3b. Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)

Identified alternatives to the proposed project activity are:

- alternative I: : The proposed project activity undertaken without being registered as a JI project activity

- alternative II: Continuation of the current state – energy is produced by existing power plants
- alternative III: Another project that uses renewable sources, other than wind

Barrier	Proposed project activity	Alternative I	Alternative II	Alternative III
Market barriers related to the specificity of renewable energy market and the specificity of wind as energy source	Barrier concerns this project – energy production from wind is unstable, which in case of periodic refusal of energy receipt causes the risk of termination of the activity.	Barrier concerns this alternative – energy production from wind is unstable, which in case of periodic refusal of energy receipt causes the risk of termination of the activity.	Barrier do not concern this alternative – production is conducted mainly in the process of burning fossil fuels, that ensures higher production stability, and potential periodic break in energy receipt does not cause a risk of termination of the activity.	Barrier do not concern this alternative – energy production from water power, biomass or biogas is conducted in more stable matter than in case of wind farms, and potential periodic break in energy receipt causes relatively small risk of termination the activity.
Technological barriers – risk of the grid breakdown	Barrier concerns this project – energy production from wind is unstable, which in case of periodic refusal of energy receipt causes the risk of termination of the activity.	Barrier concerns this alternative – energy production from wind is unstable, which in case of periodic refusal of energy receipt causes the risk of termination of the activity.	Barrier do not concern this alternative – production is conducted mainly in the process of burning fossil fuels, that ensures higher production stability, and potential periodic break in energy receipt does not cause a risk of termination of the activity.	Barrier do not concern this alternative – energy production from water power, biomass or biogas is conducted in more stable matter than in case of wind farms, and potential periodic break in energy receipt causes relatively small risk of termination the activity.
Legal and regulatory barriers	Barrier concerns the project – instability of legal and regulatory system has great influence on wind	Barrier concerns this alternative – instability of legal and regulatory system has great influence on wind	Barrier do not concern this alternative – instability of legal and regulatory system has significantly smaller	Barrier concerns this alternative – instability of legal and regulatory system has a big influence on

	farms, and due to long payback period even small negative changes cause relevant risk of termination of the activity.	farms, and due to long payback period even small negative changes cause relevant risk of termination of the activity.	influence on existing power system, which is mostly based on conventional power plants. This barrier does not cause the risk of termination the activity – mainly due to size and financial possibilities of companies running power plants and the fact that in a direct or indirect way the much of the power system is owned by the State of Treasury of Poland.	functioning of projects using renewable energy resources other than wind, and due to long payback period even small negative changes cause relevant risk of terminating activity.

To summarize, it is important to state, that none of identified barriers concerns alternative II, and two of barriers do not concern alternative III. All barriers concern proposed project activity and alternative I.

Step 4. Common practise analysis
In addition to barrier analysis, in subsequent steps, there will be conducted a credibility check test, which purpose is to identify in a reliable way and describe similar projects to subject Wind Premium project, that are or was realized in Poland.

Sub-step 4a**. Analyze other activities similar to the proposed project activity**
Wind energy sector has been developing dynamically all over the world. Over the past several years wind power industry has become a relevant electricity source in many countries, strengthening their energy independence and reducing the emission of ghg. It is a fact, that wind power industry is an ecological alternative to fossil fuels.
In Poland wind power industry has been developing since the beginning of the XXI century. In the table below there are presented numbers and power capacities of wind power plants operating in Poland in 2000-2011.

Years	Installed power [MW]	No. of installations
2011	1616,361	526
2010	1180,272	413
2009	724,657	301
2008	451,09	227
2007	287,91	160
2006	152,56	104
2005	83,3	55
2004	64,9	54
2003	54,6	45
2002	27,99	15
2001	4,252	12
2000	4,252	9

Source: URE

Analysed data comes from Report from Energy Regulatory Office and, according to the form of presentation, data from 2000 – 2005 in some years might be imprecise (some of the reports contained both wind farms and other renewable energy installations). Nonetheless presented data reflects development of wind power, which is much slower than in countries of Western Europe. It is worth mentioning that regardless of slow development wind farms are being built in Poland. However the market is very diverse. Wind farms that were built from 2000 to 2011 included both big installations and individual power plants. Major group of small installation owners use turbines imported from Western Europe. Both big farms and those that use second-hand turbines are very different from installations in the Wind Premium Programme. The main difference relates to investment costs per 1 MW and the scale of project, which in case of big farms gives better financial effectiveness. Small wind farms (under 5 MW) that use new wind plant installations in the moment of construction seem to be projects more similar to farms in Wind Premium programme. Unfortunately due to lack of appropriate data, it is hard to establish what percentage of such plants in Poland meet these conditions, therefore in the next step all wind farms are taken into consideration.

Sub-step 4b. **Discuss any similar options that are occurring**

As it was shown in sub-step 4b similar projects are the small wind farms (under 5MW) that use new wind plant installations in the moment of construction. Due to lack of reliable data that could be used to estimate the number of such farms, in this sub-step all wind farms are taken into consideration. Data below indicates that the development of wind power in Poland, including similar projects, relies on the subvention system.

The basic support system of renewable energy in Poland is the Green Certificate System, which proves that certain electricity is generated using renewable energy sources. The Certificates are tradable and show that the adequate amount of energy produced by power station are from green sources. This mechanism is the source of additional revenues, apart from sales of energy. Unfortunately this mechanism is not sufficient enough for the investment in wind farms to become cost-effective (calculations of IRR for the investments in the Wind Premium programme includes revenues from selling those certificates).

Therefore investors, who want to realize projects involving production of energy from wind look for additional forms of support. Main financial sources for those projects are Structural Funds and Cohesion Fund available from European Union. The majority of investors planned or applied for subsidy from Operational Programme “Infrastructure and Environment” and Regional Programmes. In the table below projects that received the grant from European Funds are presented[4].

Lp.	Name of Project	Beneficiary	Project’s worth	UE Input	Localisation
1	Construction of wind farm Jarogniew – Mołtowo	BETA Sp z o.o.	129 115 687,00	40 000 000,00	Zachodniopomorskie
2	Construction of wind farm - 30MW in Taciewo.	TACIEWO Sp. z o.o.	194 202 921,00	40 000 000,00	Podlaskie
3	Construction of wind farm - 48MW in Pelplin municipality	PELPLIN Sp. z o.o.	276 127 939,00	40 000 000,00	Pomorskie
4	Wind farm Ścieki - 20MW	ELWIATR - PRUSZYŃSKI Sp. z o.o.	135 600 648,00	40 000 000,00	Łódzkie
5	Construction of wind farm with necessary infrastructure near Golice.	Golice Wind Farm Sp z o.o.	223 000 890,00	40 000 000,00	Lubuskie

[4] http://www.mapadotacji.gov.pl/

Lp.	Name of Project	Beneficiary	Project's worth	UE Input	Localisation
6	Construction of wind farm Łukaszów	AMON Sp. z o.o.	230 747 252,00	40 000 000,00	Dolnośląskie
7	Construction of wind farm Modlikowice	TALIA Sp. z o.o.	167 940 583,00	40 000 000,00	Dolnośląskie
8	Construction of wind farm Karwice located in the Malechowo municipality	Polska Energia Wiatrowa Sp z o.o.	264 238 188,00	39 998 700,00	Zachodnio-pomorskie
9	Construction of four wind Power plants in Błaszki municipality	Krzemień i Wspónicy Sp. z o.o.	59 774 500,00	33 774 300,00	Łódzkie
10	Construction of wind farm Margionin east - circuit II	Relax Wind Park I Sp. z o.o.	116 526 900,00	31 500 000,00	Wielkopolskie
11	Construction of wind farm - 20 MW in Krzyżanów municipality	EOLOS POLSKA Sp. z o.o.	105 858 864,00	22 419 407,00	Łódzkie
12	Construction of complex of wind plants – 28MW KUKINIA	AWK Sp z o.o.	218 694 937,00	22 411 871,00	Zachodniopomorskie
13	Construction of eight wind plants with the necessary infrastructure in zachodniopomorskie voivodeship	Megawat Kanin Sp. z o.o.	137 740 264,00	22 410 740,00	Zachodnio-pomorskie
14	Complex of wind power plants Roby.	PSW Sp. z o.o.	45 230 502,00	21 322 140,00	Zachodnio-pomorskie
15	Construction of wind power plants park - 50 MW in Tymień.	EEZ Sp. z o.o.	245 510 000,00	19 781 856,68	Zachodnio-pomorskie
16	Wind farm WICKO 10 MW.	Szelf Sp. z o.o.	71 115 806,00	19 162 114,00	Pomorskie
17	Construction of wind farm with installation to transfer energy Batkowo	Polskie Elektrownie Wiatrowe Sp. z o.o.	27 229 106,00	17 932 459,00	Kujawsko – pomorskie
18	Construction of three wind power stations with combined power of 4,5 MW Stypułowie, Kożuchów municipality.	ELSETT ELECTRONICS Sp. z o.o.	30 382 941,00	17 260 374,00	Lubuskie
19	Complex of wind power stations with necessary infrastructure Czyżewo.	EW CZYŻEWO	41 048 543,00	15 712 177,00	Lubuskie
20	Construction of wind farm in Raciążek municipality.	Sagittarius Solutions Sp. z o.o.	48 537 041,00	15 479 769,00	Kujawsko – pomorskie
21	Construction of four wind power plants in Płużnica municipality	EKo-Energia Sp. z o.o.	24 686 687,00	14 102 760,00	Kujawsko – pomorskie
22	Construction of wind power station WISTKA	Energia dla Ciebie Sp. z o.o.	24 208 590,00	13 763 750,00	Łódzkie
23	Construction of wind farm - 2700KW Starorypin Prywatny	Wiatrak sp. z o.o.	24 630 236,00	12 894 694,00	Kujawsko – pomorskie
24	Wind Farm GLIŃSK 6 MW.	Elektrownie Wiatrowe KAROR Sp z o.o.	38 810 914,00	12 087 975,00	Lubuskie

Lp.	Name of Project	Beneficiary	Project's worth	UE Input	Localisation
25	Construction of complex of wind power plants – 7,5 MW, ŻEŃSKO in Krzęcin municipality	KSM Energia Sp. z o.o.	38 153 369,00	11 350 680,00	Zachodnio-pomorskie
26	Complex of wind power stations – 0,8MW each Wola Jedlińska, Łagiewniki and Płoszów (Jadwinówka)	E-WIND ENERGY SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ SPÓŁKA KOMANDYTOWA	19 980 981,00	11 295 344,00	Łódzkie
27	Construction of complex of wind plants Stramica – 4MW	WIATROWA BALTICA Sp. z o.o.	31 345 318,00	9 391 477,00	Zachodniopomorskie
28	Construction of wind power plant – 2 MW in Działoszyn municipality.	Flower Enterprise Sp. z o. o.	15 126 728,00	8 084 861,00	Zachodnio-pomorskie
29	Construction of wind power station – 2 MW in Działoszyn municipality.	Bella Enterprise Sp. z o.o.	14 962 643,00	8 048 426,00	Zachodnio-pomorskie
30	Construction of wind power plant with the installation to transfer energy in Września municipality	Polskie Elektrownie Wiatrowe Sp. z o.o.	14 463 939,00	7 493 370,00	Wielkopolskie
31	Construction of wind farm - 4,0MW in zachodniopomorskie voivodeship	Przedsiębiorstwo Wielobranżowe „MEGAWAT POLSKA" s.c. Andrzej Ordon, Kazimierz Ordon	25 483 658,00	7 258 738,00	Zachodnio-pomorskie
32	Construction of wind power station with the installation to transfer energy – 2MW Graboszewo	Wielkopolskie Elektrownie Wiatrowe Sp. z o.o.	19 460 958,00	7 081 908,00	Wielkopolskie
33	Wind power plant V90 2MW Żarnowica, Wolbórz municipality	Trasko Energia 2 Sp. z o.o.	16 229 850,00	6 595 000,00	Małopolskie
34	Wind power plant V90 2MW Żarnowica, Wolbórz municipality	Trasko Energia 2 Sp. z o.o.	15 676 350,00	6 370 000,00	Łódzkie
35	Construction of wind farm consisting of two power stations – 1,6 MW in Sławno municipality	Mejpol Sp. z o.o.	10 989 729,00	6 275 000,00	Zachodnio-pomorskie
36	Construction of wind farm - 26 MW in Rymanów municipality	ENERGIA WIATROWA Sp. z o.o.	158 518 404,00	5 973 200,00	Podkarpackie
37	Construction of wind power plant „MG-3" with necessary installation to transfer energy Tokarzew	ENWIA Sp. z o.o.	12 062 719,00	5 762 568,00	Wielkopolskie

Lp.	Name of Project	Beneficiary	Project's worth	UE Input	Localisation
38	„Improvement of the quality of air and increasing energetic safety of Mazowsze through construction of wind stations with combined power of 4 MW on Mławski district."	Elektrownia Wiatrowa EOL Sp. z o.o.	19 427 850,00	5 366 900,00	Mazowieckie
39	Construction of wind power plant – 1,5 MW, Kartowice	Elsett Electronics Sp. z o.o.	11 515 615,00	4 406 762,00	Lubuskie
40	Construction of wind power station – 2 MW, Grodkowo – Zawisze	Wood Company Sp. z o.o.	13 095 637,00	4 274 438,00	
41	Construction of wind power plant, Pudzików	OZE 21 Sp. z o.o.	6 250 300,00	3 580 500,00	Łódzkie
42	Investment in new fixed assets to create new company – construction of wind power station	EKO-ENERGIA Henryk Kryszkiewicz	8 649 700,00	3 558 026,00	Mazowieckie
43	Growth of competitiveness of company Mine of Gravel and Sand – Emanuel Kowalczyk, Daniel Kowalczyk Sp. j. through construction of two wind based generators in Ludkowo, Pakość municipality.	Kopalnia Żwiru i Piasku - Emanuel Kowalczyk, Daniel Kowalczyk Spółka Jawna	11 482 752,00	3 392 636,00	Kujawsko - pomorskie
44	Construction of wind power station – 800 kW in Plecka Dąbrowa, Bedlno municipality.	Hebe Enterprise Sp. z o.o.	5 980 604,00	3 330 603,00	Łódzkie
45	Improvement of competitiveness of company Little Power Station Mędrzyce PLUS Mariola Weiss – Kwella, Teresa Weiss S.C through purchase, montage and launch of two synchronised wind turbines.	Mała Elektrownia Wodna Mędrzyce PLUS Mariola Weiss-Kwella, Teresa Weiss S.C.	9 086 560,00	3 165 400,00	Kujawsko - pomorskie

Source: www.mapadotacji.gov.pl

Number of projects, that were granted with subvention clearly indicates, that common practice on the market is to realize wind farm projects using additional public financial sources. This fact proves, that projects producing energy from wind require additional support. The evaluation concerning usage of particular source of renewable energy indicates (on the example of Operating Programme Infrastructure and Environment, Action 9.4[5]) that such support should accelerate new investment processes and enable gathering of project experience in particular sectors and interesting/innovating projects, which would not be able to overcome economic barriers without external support.

[5] Conducting evaluation research named: The evaluation research concerning usage of particular source of renewable energy show on the example of Operating Programme Infrastructure and Environment, Action 9.4

Wind energy projects in Poland are being conducted with the assumption of using Joint Implementation mechanism, which also proves the fact, that those projects are not financially attractive and need additional financial support. The table below shows projects, that are implemented in Poland and have Letters of Approval[6].

L.p.	Name of Join Implementation Project	Issue date of Letter of Approval
1.	„Farma wiatrowa Zagórze"	2005-01-10
2.	„Farma wiatrowa Lake Ostrowo"	2007-01-31

To summarise the analysis performed in step 4 it has to be admitted, that there are projects similar to those in Wind Premium Programme implemented in Poland. However common practise is to look for additional source of financial support for those projects to improve their financial effectiveness. Examples of projects that use subvention support and projects, that gained Letters of Approval from Joint Implementation Mechanism prove the abovementioned statement.
Individual wind power stations involved in Wind Premium Programme were constructed without subvention support, which makes them different from commonly realised projects in this area. This fact essentially distinguish projects that obtain energy from wind realised in Poland from projects in Wind Premium Programme.
In the table below are presented results of Wind Premium project's financial effectiveness calculation (all wind farms included in Wind Premium Programme taken together) with and without additional revenues resulting from Join Implementation Mechanism. Indicators are calculated for three analysis periods (15, 20 and 25 years).

	without JI		with JI	
Period/indicator	**NPV**	**IRR**	**NPV**	**IRR**
15 years	-3 203 591,50 zł	6,65%	-2 261 391,12 zł	7,04%
20 years	6 469 910,43 zł	9,99%	7 412 110,81 zł	10,30%
25 years	13 053 533,29 zł	11,29%	13 995 733,67 zł	11,56%

Data shows that the project is not financially effective in 15-year period. Financial effectiveness can be examined in a period longer than 20 years. It is worth mentioning that being in Joint Implementation Programme has an influence in increased financial effectiveness of the project, which can minimise the influence of identified barriers. What's more, in calculations were included ERU units generated in 2008 – 2012 period. The possibility to generate ERU units post-2012 will effect greater improvement in project stability.
To summarise, Wind Premium Programme encounter barriers that can significantly slower the realisation of the project, but they don't involve identified alternatives. Common practise analysis indicates that in similar projects it is common to use external financing, like subvention from European Union or realisation of similar projects in term of Joint Implementation Mechanism, which leads to gaining some benefits, that could not be achieved without abovementioned forms of support. Taking all facts together, Wind Premium project meets the additionality requirements.

Step 3. Provision of additionality proofs
Additionality was indicated in previous step using barrier analysis, according to the document "Tool for the demonstration and assessment of additionality" (version 6.0.0).

[6] http://www.kobize.pl/index.php?page=wykazy-projektow-wspolnych-wdrozen-ji

The conclusion of barrier analysis comes to a statement that Wind Premium project meets barriers, which are not met by identified alternative scenarios. It indicates that it is more profitable to uphold the state before realizing the project, which means production of energy with the use of utility power plant (in Poland it's mostly burning fossil fuel) or investing in other renewable source of energy. It is proved by common practice analysis. It's common to look for additional source of support by entities which implement wind farm projects. List of projects that use subventions and projects that have Letters of Approval proves that fact.
It's important to point out that realization of the project contributes to achievement of other, nonfinancial goals, such as improvement of power industry safety and reduction of greenhouse gas emission from plants burning fossil fuels. Obtaining energy from renewable source is the alternative for traditional energy sources what simultaneously results in the reduction of greenhouse gas emission to atmosphere, including CO_2.
Wind Premium Project is in accordance with direction of Polish politics and strategies in terms of power industry. Project is in accordance with the Energy Law and the directions indicated in document "Polish Power Industry Policy Until 2030", which constitute the implementation of main goals of EU power sector policy by adjusting it to specific national conditions.
Basic directions of Polish power industry policy are:

- Improvement of power sector effectiveness
- Growth in power sector safety
- Development of using renewable source of energy, including biofuel
- Development of competitiveness of fuel and energy markets
- Limitation of influence of power sector on environment

Wind Premium Project is in accordance with basic directions of Polish power industry policy, because it strengthens power industry safety. Wind Premium Programme assumes building new production sources to balance domestic demand on electric energy. Moreover, energy is obtained from renewable source (wind), so additional assurance of power industry safety is made by diversifying sources of produced energy. What is more, electric energy obtained from wind is ecologically clean, because its making does not require burning fossil fuels and does not cause emission of polluting substances into atmosphere. This additionally proves compatibility of the project with document "Polish power industry policy till 2030", where one of goals is to limit the influence of power sector on environment.

B.3. Description of how the definition of the project boundary is applied to the small-scale project:

>>
According to document "Guidance on criteria for baseline setting and monitoring" in case of a JI project aimed at reducing emissions, the project boundary shall:
(a) encompass all anthropogenic emissions by sources of GHGs which are:
(i) under the control of the project participants
(ii) reasonably attributable to the project
(iii) significant, i.e. the source accounts, on average per year over the crediting period, for more than 1 per cent of annual average anthropogenic emissions by sources of GHGs, or exceeds an amount of 2,000 tonnes of CO_2 equivalent, whichever is lower, and
(b) be defined on the basis of a case-by-case assessment with regard to the criteria referred to in subparagraph (a) above.

According to methodology AMS I.D.: Grid connected renewable electricity generation, the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the project power plant is connected to.

In the reference to the methodology AMS I.D boundaries of the project are the localisation of the project power plants and all power plants connected physically to the electricity system that the project power plant is connected to, that is National Power System. The National Power System consists of power plants, industrial and distribution grids. Most of power stations in Poland produce energy based on traditional technology, that use fossil fuel, which effects in greenhouse gas emission, such as CO_2. According to The National Centre for Emissions Management (KOBIZE) calculations, the emission factor for electricity production in Poland is 0,812 Mg CO_2/MWh, which indicates that every 1 MWh of electric energy production in Poland causes emission of 0,812 Mg CO_2.

The project through production of green energy can lessen the energy produced in other, conventional sources connected to National Power System, what would also reduce CO_2 emission. Which means that the project boundary defined in accordance to the methodology "AMS I.D.: Grid connected renewable electricity generation" is in accordance with the requirements of the document "Guidance on criteria for baseline setting and monitoring", i.e.:
- includes reduction of CO_2 emission from energy Production process, which is an anthropogenic emission;
- reduction is under the control of project participants (energy is generated by wind power plants, whose owners are project participants);
- through measurement of produced energy in every localization it is easy to attribute specific amount of emission reduction to every installation included in the project;
- reductions are significant, that is exceed 2000 tonnes per year.

B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline:

>>
Date of defining baseline setting: 09/2012
Name(s) of person(s)/entity(ies) setting the baseline:
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SECTION C. Duration of the small-scale project / crediting period

C.1. Starting date of the small-scale project:

>>
The starting date of Wind Premium project is the date of beginning of the construction works regarding installation, which construction started the earliest (i.e. Wind Farm Łebcz). According to the construction journal, first construction works associated with Wind Farm Łebcz began on 04.03.2003.
It is worth mentioning that every wind farm in this project was built independently, in different timelines. In the table below are presented dates of starting the construction works of each wind farm in the project.

Name of installation	FW Łebcz	FW Wola Świniecka	FW Mierzyce	FW Miksztal	FW Graboszewo/ Paruszewo
Inauguration of building	04.03.2003	26.09.2009	10.06.2011	05.12.2008	08.04.2011

As presented above, the first wind farm to be built was Wind Farm Łebcz and the last was the one in Graboszewo/Paruszewo

C.2. Expected operational lifetime of the small-scale project:

>>

Expected operational lifetime of wind turbines in the project is 25 years. Therefore, the expected operational lifetime of the project should be equal to the expected operational lifetime of turbines, which operation began first, i.e. turbines installed in Wind Farm Łebcz.

C.3. Length of the crediting period:

>>

Crediting period is assigned by the crediting period from Kyoto Protocol. Crediting period for the project encompasses the period from 01.01.2008 to 31.12.2012, i.e. five years.
In case of a new agreement specifying functionality of Joint Implementation Mechanism comes into force, it is assumed to prolong crediting period for the project from 01.01.2013 to 31.12.2020.

SECTION D. Monitoring plan

D.1. Description of monitoring plan chosen:

>>

Step 1. Indication and description of the approach chosen regarding monitoring
In accordance with the JISC: "Guidance on criteria for baseline setting and monitoring", for the purposes of project's monitoring the whole approved methodology CDM was adopted. Proper methodology for the project is methodology AMS I.D.: Grid connected renewable electricity generation.

Step 2. Application of the approach chosen
According to the methodology AMS I.D.: Grid connected renewable electricity generation monitoring includes:

- CO_2 emission factor of the grid in year y (EF_{CO2y});
- Quantity of net electricity supplied to the grid in year y ($EG_{facility,y}$).

Due to the fact, that emission indicator (EF_{CO2y}) published by The National Centre for Emissions Management was used in the project, monitoring of this indicator will be limited to monitoring of the value of the indicator published by The National Centre for Emissions Management. In case of an updating value of the indicator in following years, the updated version of indicator will be used to calculate emission reduction in those years.
Indicator $EG_{facility,y}$ will be monitored on the monthly basis, with the usage of the measuring devices. Documents that will confirm net amount of delivered energy to the grid by every installation in the project will be:

- invoices of electric energy sale
- invoices of electric energy purchase

Documents are archived in the headquarters of the wind farm owner's companies – they are held in paper form.

D.2. Data to be monitored:

>>

Data/Parameter	EF_{CO2y}
Data unit	t CO_2e/MWh
Description	CO_2 emission factor of the grid in year y
Time of determination/monitoring	Constant monitoring in the whole crediting period
Source of data (to be) used	Data regarding emission indicator comes from official source: The National Centre for Emissions Management
Value of data applied	0,812
Justification of the choice of data or description of measurement methods and procedures (to be) applied	Due to the fact, that project boundary encompasses not only project's installations but also the whole National Power System, calculation of emission indicator for the grid from the perspective of participant would be difficult and inaccurate. As The National Centre for Emissions Management published referential indicator with the aim to be used within Joint Implementation projects, this indicator was chosen. Reliable sources were used in order to calculate the indicator. The National Centre for Emissions Management states that in the calculation were used data both concerning emission and production of electric energy in 2008 – 2010, it was the newest set of complete data available in used sources. According to that the indicator were assigned for the whole period 2008 – 2012. In case of ERU units generated after 2012, the updated indicator will be used.
QA/QC procedures (to be) applied	Phone contact with The National Centre for Emissions Management before closing every period report.
Any comment	Emission indicator of the grid is published by The National Centre for Emissions Management http://www.kobize.pl/dokumenty-i-publikacje-2.html

Data/Parameter	$EG_{facility,y}$
Data unit	MWh/y
Description	Quantity of net electric power supplied to the grid in year y
Time of determination/monitoring	Constant monitoring in the whole crediting period, on monthly basis
Source of data (to be) used	Invoices made out by wind farm's owners stating the amount of energy delivered to the grid Invoices made out by energy suppliers to wind farm's owners stating electric energy consumption for needs of installation
Value of data applied	-
Justification of the choice of data or description of measurement methods and procedures (to be) applied	Invoices confirm amount of produced and consumed electric energy for needs of functioning of the wind farms in the project. The basis for preparation of invoices are indications on the electric energy measuring devices, that are regularly checked for precision and legalised. Every devise has appropriate and valid legalisation certificate. Invoices produced by the owner of the wind farm for the recipient of the electric energy prove the amount of electric energy delivered to the grid in particular period. Invoices produced by suppliers of electric energy for the owners of the wind farms in the project prove amount of electric energy

	consumed by the wind farms in particular period. Indicator $EG_{facility,y}$ will be calculated as a result of subtraction between energy provided to the grid and energy consumed by the installation. Calculated value will state exact net value of energy provided to the grid.
QA/QC procedures (to be) applied	The basis for calculation of this indicator are indications on the electric energy measuring devices. All measuring devices have valid legalisation certificates, which means that they are regularly checked for precision of their measurement. In terms of QA/QC procedures has to be stated: - taking care of punctual legalisation of measuring devices - most farms have another set of measuring devices near turbines, that in case of main devices failure can be the basis for settlement of ERU units
Any comment	-

Small wind farms included in Wind Premium Programme do not cause danger to the environment, so monitoring of their influence on environment is not conducted.

D.3. Quality control (QC) and quality assurance (QA) procedures undertaken for data monitored:

>>

Data (Indicate table and ID number)	Uncertainty level of data (high/medium/low)	Explain QA/QC procedures planned for these data, or why such procedures are not necessary
$EG_{facility,y}$	low	The basis for calculation of indicator are indications on the electric energy measuring devices. All measuring devices have valid legalisation certificates, which means that they are regularly checked for precision of their measurement. In terms of QA/QC procedures has to be stated: - taking care of punctual legalisation of measuring devices - most farms has another set of measuring devices near turbines, that in case of main devices failure can be the basis for settlement of ERU units access to measuring system will be provided to the Energy Operator – the electricity recipient

D.4. Brief description of the operational and management structure that will be applied in implementing the monitoring plan:

>>

Faber Consulting Sp. z o.o. will guarantee monitoring of the level of produced energy in each wind farm. Other data will be gathered and presented in this document.
Manager of every farm will be responsible for the monitoring process on his farm.
Faber Consulting employee would be the coordinator of monitoring process. For the needs of the project there will be created a division of responsibilities and competences, along with structure of management (with help of Gannt diagram). Regular meetings of the team responsible for the monitoring of the project will be conducted, with the aim to improve management process.
Collected data will be reported monthly and annually, what will enable an ongoing calculation of emission reduction, thus will guarantee the credibility and verifiability of the ecological effect and the amount of ERU units generated by the project.
All data will be archived both in paper and electronic form.

D.5. Name of person(s)/entity(ies) establishing the monitoring plan:

>>

Jacek Zduńczyk, Faber Consulting sp. z o.o.

SECTION E. Estimation of greenhouse gas emission reductions

E.1. Estimated project emissions and formulae used in the estimation:

>>

According to AMS.I.D. Grid connected renewable electricity generation (ver. 17.0) methodology most projects that use renewable energy sources do not cause anthropogenic greenhouse gas emissions. Wind Premium Programme contains small wind farms, that use wind force to produce energy, therefore they do not cause any anthropogenic greenhouse gas emissions.

E.2. Estimated leakage and formulae used in the estimation, if applicable:

>>

According to the methodology AMS. I.D. “Grid connected renewable electricity generation” (ver. 17.0), leakage is not to be considered if the energy generating equipment is not transferred from another activity. Installations included in Wind Premium Programme do not use energy producing devices transferred from different projects, therefore emission leakages are not taken into consideration.

E.3. Sum of E.1. and E.2.:

>>

Since there are neither project emissions, nor leakages in the project, the sum of E.1. and E.2. equals zero.

E.4. Estimated baseline emissions and formulae used in the estimation:

>>

Baseline emission is calculated according to the methodology AMS. I.D. (ver. 17,0), using following formula:

$BE_y = EG_{BL,y} * EF_{CO2,grid,y}$

Where:

BE_y	Baseline emission in year y (t CO_2)
$EG_{BL,y}$	Quantity of net electricity supplied in year y (MWh)

$EF_{CO2,grid,y}$ CO_2 emission factor of the grid in year y(t CO_2/MWh)

The table below shows the data used for the calculation and the results.

Year	Quantity of net electricity supplied to the grid in year y (MWh)	CO2 emission factor of the grid in year y (t CO_2/MWh)	Baseline emissions in year y (t CO_2)
Year 2008	7 784,464	0,812	6 321
Year 2009	7 047,879	0,812	5 723
Year 2010	8 861,336	0,812	7 195
Year 2011	14 442,379	0,812	11 727
Year 2012	21 660,000	0,812	17 588
Year 2013	21 660,000	0,812	17 588
Year 2014	21 660,000	0,812	17 588
Year 2015	21 660,000	0,812	17 588
Year 2016	21 660,000	0,812	17 588
Year 2017	21 660,000	0,812	17 588
Year 2018	21 660,000	0,812	17 588
Year 2019	21 660,000	0,812	17 588
Year 2020	21 660,000	0,812	17 588

E.5. Difference between E.4. and E.3. representing the emission reductions of the project:

>>

The table below shows the difference between E.4. and E.3. representing the emission reductions of the project.

Year	emission reductions of the project in year y (t CO_2)
Year 2008	6 321
Year 2009	5 723
Year 2010	7 195
Year 2011	11 727
Year 2012	17 588
Year 2013	17 588
Year 2014	17 588
Year 2015	17 588
Year 2016	17 588
Year 2017	17 588
Year 2018	17 588
Year 2019	17 588
Year 2020	17 588

E.6. Table providing values obtained when applying formulae above:

>>

Year	Estimated project emissions in year y ($t CO_2$)	Estimated leakage in year y ($t CO_2$)	Estimated baseline emissions in year y ($t CO_2$)	emission reductions of the project in year y ($t CO_2$)
Year 2008	0	0	6 321	6 321
Year 2009	0	0	5 723	5 723
Year 2010	0	0	7 195	7 195
Year 2011	0	0	11 727	11 727
Year 2012	0	0	17 588	17 588
Year 2013	0	0	17 588	17 588
Year 2014	0	0	17 588	17 588
Year 2015	0	0	17 588	17 588
Year 2016	0	0	17 588	17 588
Year 2017	0	0	17 588	17 588
Year 2018	0	0	17 588	17 588
Year 2019	0	0	17 588	17 588
Year 2020	0	0	17 588	17 588

SECTION F. Environmental impacts

F.1. Documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party:

>>

The closing of wind farm construction works in the project took place consecutively from June 2007 to November 2011. During this period Polish law regarding analysis of the environmental impact of projects has changed.

Till 15th November 2008 these matters were regulated by Environmental Law (Dz. U. z 2006 r. Nr 129, pos. 902) from 27th April 2001 along with implementing regulations. Since 16th November 2008 law regarding analysis of the environmental impact were regulated by 3rd October 2008 Act about sharing information on environment and its protection, society participation in environment protection and analysis of the environmental impact (Dz. U. z 2008 r. Nr 199, pos. 1227) along with appropriate implementing regulations.

According to applicable Law at that time owners of wind farms were obligated to:

1. Wind farm "Łebcz" – create a report on environmental impact, that was indispensable for the village-mayor of Puck commune to issue a decision on environmental considerations of a project by the Investor in inferred place (decision OŚ and GW – 7600/DŚ – 20/2006);
2. Wind farm "Wola Świniecka" – create a report on environmental impact, that was indispensable for the village-mayor of Świnice Warckie commune to issue a decision about construction permit (decision GKP 7624-1/2008);
3. Wind farm "Mierzyce" – the authority who was leading the proceedings (that is village-mayor of Wierzchlas municipality) issued a decision, in which he withdraw the investor's obligation to create a report about environmental impact (sygn. Ośli – 7624/8/2009) and afterwards issued a decision on environmental considerations of a project on the basis of application and attached information card, as well as taking into consideration the position of Wieluń District Prefect and National Sanitary Inspector in Wieluń District (decision Ośli – 7624/8/2009);
4. Wind farm "Miksztal" - a decision on environmental considerations of a project that was issued by village-mayor of Nowe Ostrowy commune on 1st October 2007; the applicant, Mr. Mirosław

Dogadalski, despite of lack of formal requirement, ordered to create a report about environmental impact (report was done in April 2007);

5. Wind plants "Graboszewo/Paruszewo" – create a report about environmental impact, that was indispensable for issuing by village-mayor of Strzałkowo municipality a decision on environmental considerations of a project and a permission for project realization by the Investor in applied place (decision OS.7620-27/09).

All abovementioned environmental impact reports were carried out according to applicable law and with higher quality standards. All farms in the project gained appropriate decisions indispensable to conduct the investment.

F.2. If environmental impacts are considered significant by the project participants or the host Party, provision of conclusions and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party:

>>

According to environmental impact reports as well as appropriate authority decisions on environmental considerations of projects included in the project there was found no significant impact of the project on environment both in the moment of construction and exploitation.
Entities that prepared reports and bodies issuing decisions paid special attention to impact that the project had on the following elements:

- soil, ground and surface waters
- vegetal cover, animal world and natural environment
- atmospheric air and acoustic climate
- landscape and ways of using adjacent grounds, material possessions and cultural heritage
- health of people and protection of reasonable third party interests

There were found several negative impacts of the project, that is: noise increase, possible birds collisions during their passage through the territory of wind power stations, landscape changes on particular areas. However in non of those cases there were found significant impact on environment nor violations of permitted standards.

What's more investments using wind energy are eco-friendly due to the fact, that they eliminate greenhouse gases emissions from conventional source of electric energy production.

All wind farms included in the project obtained positive decision of public administration bodies that permits conducting the investment.

SECTION G. Stakeholders' comments

G.1. Information on stakeholders' comments on the project, as appropriate:

>>

In the phase of obtaining a decision on environmental considerations of a project by investor (further known as: environmental decision), law from 3rd October 2008 on sharing information about environment and its protection, society participation in environment protection and estimations regarding impact on environment (earlier it was regulated by: Environmental Law from 27th April 2001) stipulated the society participation in decision making process.

In order to obtain environmental decision and construction permit the project cannot be contradictory with local spatial development plan, if such plan is valid. The plan should be consulted with residents of the area that the project concerns, pursuant to regulation of the act about sharing information about environment and its protection, society participation in environment protection and estimations regarding impact on environment and Act from 27th March 2003 on zoning and spatial development (Dz.U.03.80.717).
In case of lack of local spatial development plan, investor has to apply for a zoning decision. In order to obtain zoning decision, the environmental decision must be submitted, which issuing is indispensable for all projects that can significantly influence the environment.
Administration authority that prepares such document is responsible for conducting consultations with local community regarding preparation of the document (in case of preparing local spatial development plan – local consultations are conducted by village-mayor, mayor or president). Administration authority is obligated to make public such information as:

a. starting the procedure of preparation of the document and its subject
b. possibilities of becoming acquainted with necessary documentation and the place, in which it is available for examination
c. possibility of making notes and applications (notes and applications can be submitted in paper form, verbally entering to record or with the help of electronic communication means without the necessity of providing them with electronic signature)
d. ways and location of making notes and applications, indicating at the same time at least 21-day deadline (notes and applications submitted after the deadline are left without consideration)
e. authority competent for examination of notes and applications
f. proceedings regarding cross-border impact on the environment, if being conducted

If any notes or applications regarding conducting procedure were filed, public administration authority attaches a justification to final document, that includes information about local community participation in proceedings and the way notes and applications were taken into consideration.
Subsequently administration authority makes public the information about accepting the document and possibilities to familiarize with its contents and justification.
In case of lack of local spatial development plan local community participation in environmental decision process is similar – authority issuing the decision makes public the following information:

a. starting date of the procedure regarding project's impact on the environment
b. initiating the proceedings
c. the topic of decision, that is going to be issued
d. authority competent for issuing decisions and authority competent for issuing opinions and making arrangements
e. possibilities of becoming acquainted with necessary documentation and the place, in which it is submitted for examination
f. possibility of making notes and applications
g. ways and location of making notes and applications, indicating at the same time at least 21-day deadline
h. authority competent for examination of notes and applications
i. deadline and location of administrative hearing open for community, if being conducted
j. proceedings regarding cross-border impact on environment, if being conducted

If any notes or applications regarding conducting procedure were filed, public administration authority attaches a justification to final document, that includes information about local community participation

in proceedings and the way notes and applications were taken into consideration. Decision making processes in all wind farms in the project were conducted pursuant to the law, enabling the community to take a position on the matter of prepared investments. All filed notes and applications were taken into consideration by administration authority in issued decisions.

Annex 1

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