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 project:

Mockiai Wind Power Joint Implementation Project
Version: 1.1
Date: March 5 2009

A.2. Description of the project:

The objective of the Mockiai wind power Joint Implementation (JI) project is to establish a wind power plant with a total capacity of 12 MW at Mockiai village, located at Silute district at the western part of Lithuania.

The renewable electricity produced by the wind power plants will displace carbon intensive electricity produced from fossil fuel sources in the Lithuanian power network, thus contributing to the lowering of greenhouse gas emissions as well as other pollutants related to fossil fuel based power generation.
Lithuania has undertaken to increase the share of renewable electricity from current 3,5% to 7% by year 2010. To comply with this undertaking Lithuania would need to achieve ca. 480 GWh electricity production only from wind energy. This would amount to ca. 200 MW of installed wind power capacity.
The recently approved National Program of Increasing Efficiency of Energy Consumption for 2006–2010 states that potential of usage of renewable sector to produce electricity is growing 0.2-1% annually; wind energy is first priority, biomass energy second.

The set feed-in tariff is unfortunately not sufficient to realize the proposed project on a commercial basis. Additional income from the sale of 'carbon credits' under the Kyoto Joint Implementation scheme is thus required to turn the project attractive for the investors.

A.3. Project participants:

Table 1. Project participants

Party involved	Legal entity project participant (as applicable)	Please indicate if the Party involved wishes to be considered as project participant (Yes/No)
Republic of Lithuania (Host Party)	*UAB Iverneta*	No
To be defined	*to be defined*	No

UAB Iverneta is a joint stock company established for the development and operation of the Mockiai wind power plant.

The PDD was prepared by UAB COWI Baltic in cooperation with Nelja Energia OÜ. Contact: COWI Baltic Tel: +370 5 2191307, e-mail: info@cowi.lt

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

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

A.4.1.1. Host Party(ies):

Republic of Lithuania

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

Klaipeda county

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

Mockiai village

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

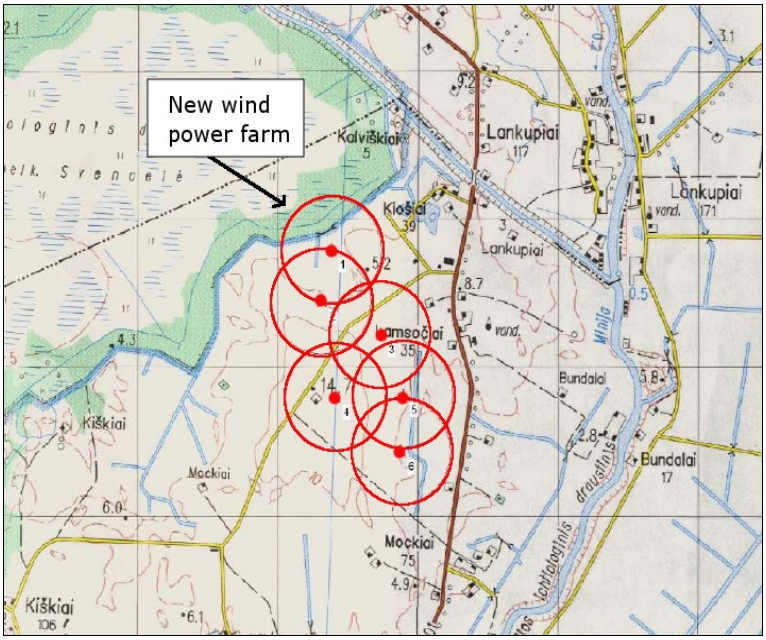
The proposed JI project will be located at Mockiai village at Silute district at the western part of Lithuania. The wind farm will be located about 3 km from the Kuronian lagoon (Figures 1 and 2).

The project site is situated at a windy territory of the Kuronian lagoon. Referring to long term meteorological data and measurements of wind speed and strength the chosen location is well suited for wind power generation.

Total territory of the park consists of three land-units of 52 ha, 13.49 ha and 9.48 ha. Detailed layout of wind power plants in the territory is shown in Figure 2.

Figure 1. Location map

Figure 2. Detailed layout of wind farm



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

Type I JI SSC project: Renewable energy project with a maximum output capacity of less than 15 MW(e).

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

It is planned to install six Enercon E-82 type wind turbines at the project site. The power generation of these wind farms will displace carbon-intensive generation from the Lithuanian power plants.

Technology

The technical data of the planned wind farm is presented in Table 2.

Table 2. Technical data of wind turbines

Type of wind turbine	Enercon E-82
Capacity	2000 kW
Height of tower	108,3 m
Rotor diameter	82 m
Number of rotor blades	3
Cut-in wind speed	2.5 m/s
Cut-out wind speed	24-34 m/s
Nominal rotation speed	19.5 rpm
Generated voltage	690V
Voltage frequency	50Hz

An energy production estimate has been carried out by EMD using measurements from a 85 m meteorological mast located close to the site with a 12-month measurement period (2005-6). Data from the site has been calibrated to represent long term conditions using the Measure-Correlate-Predict (MCP) tools in the software WindPRO. As basis for the long term correction data from NCAR/NCEP re-analysis data has been used. As result of the analysis the wind farm is conservatively estimated to generate 37,346.1 MWh of electric power per year over a period of 20 years.

The wind power park will be connected to a 35kV power line, so installation of a transformer substation is not required for this project.

Key permits and contracts

Besides the low feed-in tariff, the main development barrier to wind projects in Lithuania is the securing of grid connection rights and planning permits. This barrier has been effectively removed for this project. Iverneta UAB has won 2 tenders for grid connection 6 MW each and received generation licenses from the Ministry of Economy for development of the wind farm, , No. LPT-0084 (6MW)on 2005-07-01 and LPT-0120, (6MW) on 2006-07-13.. The licences are prolonged every 6 month.. The grid connection fees have already been paid.

The local municipality has agreed to the establishment of the wind farm and approved the respective detailed land use plan on the 5th of February 2008. The project detailed technical design has been completed on basis of which the building permit no. 08(1)1-101 has been obtained on July 14 2008.

According to the Lithuania Law the EIA screening has been performed. Based on the results of EIA screening the Environment Protection Department of the Klaipeda Region has decided that full EIA procedure is not required (letter of 2006-08-17 no. (9.14.5.)-V4-4298).

Table 3. Key permits

No.	Permit	Approval
1.	Grid connection permit	2005-07-01 - 6MW 2006-07-13 - 6MW
2.	Detailed plan	2008-02-05
3.	Building permit	2008-07-14
4.	EIA /screening	2006-08-17

The Power Purchase Agreement (PPA) for the project has not yet been signed but is a formality under Lithuanian law once the grid connection rights have been secured. The PPA will be secured by Q3, 2009.

It is planned that the wind farm will be supplied on a turn-key basis by Enercon. Operation of the wind farm will be taken care of by 4Energy and Enercon will take care of technical maintenance of during the first two years.

Milestones, time schedule and current status of implementation

The project is currently in the advanced development phase with feasibility analysis completed and key permits obtained. Project financing (dependant also on securing carbon financing) is under completion with a view to wind farm erection during quarters 3-4 2009 and commissioning by the end of 2009. Emission reductions would thus begin to be generated by latest from 1st of January 2010.

Risks during project implementation and operation

Construction cost overrun risk is transferred to the turnkey supplier by the terms of the supply contract. This includes total project management, including foundation construction and all civil engineering work. Enercon will be responsible for installation and operation during the trial period.

Technology risks during construction and commissioning are similarly covered by the terms of the supply agreement. The contract includes a two year warranty period which includes maintenance, consumables and spare parts, valid from the takeover certificate (at successful commissioning). Risk is further reduced as the technology supplier is an established and creditworthy company.

Delivery risks during operation relate to operation of the wind power plant. These include risks related to high wind, freak conditions, fire and lightning and vessel collision. These will be minimised by employing best practice procedures. The remaining risks will be assumed with the purchase of insurance products, incl. business interruption insurance.

The risks related to expected power generation of the wind farm has been minimized by use of the World leading expert EMD International A/S. As the result of the analysis the annual production of the wind farms is conservatively estimated to be 37,346.1 MWh.

Market risks relate to the uncertainties of power tariffs and the purchaser's ability to pay. These are covered through the PPA, which is required by law, with recourse to a creditworthy counterparty, AB Lietuvos Energia, the national power company. The company operates in an EU business environment, with low levels of business and regulatory risk. There remains however the risk of possible change of the feed-in tariff under the legislation. There is also an uncertainty related to the expected sales price of power after the end of the obligatory purchase period.

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:

The renewable electricity produced by the proposed wind power plants would displace carbon intensive electricity produced from fossil fuel sources in the Lithuanian power network.

Lithuanian electric power network is being operated by AB Lietuvos Energija. Foremost, they purchase power quotas (on basis of the prior signed contracts) from electric power producers. The producers may also supply electric power, exceeding the quotas, at a lower price. The difference in national demand for the electric power and total production thereof (quotas and over-quotas) is being covered by AB Lietuvos Elektrine. Thus, if the implementation of this JI Project fails, the estimated electric power would be produced by AB Lietuvos Elektrine using fossil fuels – natural gas, heavy fuel oil and orimulsion. It was calculated that AB Lietuvos Elektrine, by generating 1 MWh of electric power, contributes to the pollution of atmosphere with 0.629 tonnes of CO2 (data of 2002-2005).[1]
See chapter B.1. for more details of baseline calculation and next chapter for estimation of the GHG emission reductions of the JI Project which have been calculated conservatively on basis of the above carbon emission factor of 0.629 tCO2e/MWh and the expected power production.

[1] JI PDD of Sudenai and Lendimai Power Joint Implementation Project, Nov. 2007, PDD ver. no. 6, p.18

The proposed JI Project supports Lithuania's objective to increase the share of renewable electricity from current ca. 3,5% to 7% by year 2010. To comply with this undertaking Lithuania would need to achieve 480 GWh electricity production only from wind energy. This would amount to ca. 200 MW of installed wind power capacity.
The Law of the Republic of Lithuania on Energy[2] points out promotion of consumption of renewable energy resources as one of the principal objectives of regulation of state energy sector activities. The law provides that the state encourages the producers to generate electricity from renewable energy sources by imposing the "must carry" obligations. The Rules for Imposing the Public Interest Service Obligations[3] provide that supply licence holders are under the obligation to buy up electricity generated by producers (connected to the transmission system) by using renewable and spare energy resources, and to sell it to their customers.
In order to provide incentives for wind power development the government has issued legislation regulating obligatory purchase of wind power at a price of 0,30 LTL per kWh (0.087 EUR). The feed-in-tariff is set by the decision No O3-27 of 21 February 2008 of the National Price and Energy Control Commission amending the decision No.7 of the National Price and Energy Control Commission approved on 11th February 2002. Such feed-in tariff is expected to remain until year 2020. In order to obtain the mentioned feed-in tariff the wind power plant must be built in one of the six zones for which tenders for grid connection are organised by Lietuvos Energija AB - the electricity Transmission System Operator in Lithuania.
The above feed-in tariff for wind power is unfortunately not sufficient for commercial development of the wind power sector. Thus all recent wind power developments (e.g. Rudaiciai wind power plant of UAB Veju Spektras and Benaiciai wind power plant of UAB Achema Hidrostotys) are being carried out under the JI scheme.

A recent report of the European Commission concludes for Lithuania that the progress up to now to increase the share of renewable electricity has been modest: "Amendments made in 2005 to the RES-E support system must lead to tangible results soon in order to reach the 2010 target of 7%".[4]

It is thus very unlikely that future project will proceed without further financial interventions from the Joint Implementation scheme. For further information about the project's additionality please see section B.2.

A.4.4.1. Estimated amount of emission reductions over the crediting period:	
Length of the crediting period	3 years
Year	**Estimate of annual emission reductions in tonnes of CO2 equivalent**
Year 2010	23,491
Year 2011	23,491
Year 2012	23,491
Total estimated emission reductions over the crediting period (tonnes of CO2 equivalent)	70,472
Annual average of estimated emission reductions over the crediting period (tonnes of CO2 equivalent)	23,491

[2] Law No. IX-884 of the Republic of Lithuania on Energy, dated 16 May 2002.
[3] Order No. 380 of the Minister of Economy of the Republic of Lithuania on approval of regulations enacting the Law of the Republic of Lithuania on Electricity, dated 18 December 2001.
[4] Communication from the Commission to the Council and the European Parliament. Green Paper follow-up action. Report on progress in renewable electricity. Brussels, 10.1.2007, p.8

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

The Mockiai wind power JI Project with a combined capacity of 12.0 MW(e) is not a debundled component of a larger project due to the following reasons:
- The project boundaries of the nearest operating wind farms and wind power development projects are located at a minimum distance of 3 km from the project boundary of the proposed JI Project (at the closest point).
- The project participants of the closest wind power development projects are different.

A.5. Project approval by the Parties involved:

Mockiai wind power JI project idea was given preliminary approval (Letter of Endorsement) on 8th of May 2007 by the Communication No (10-5)-D8-3944 of Ministry of Environment of the Republic of Lithuania. The evaluation of the Project Idea Note was made in consideration of provisions settled out in the regulation for JI project Implementation in Lithuania, approved by the ordinance No D1-183 of the Minister of Environment of the Republic of Lithuania on 01 April 2006 (Official Gazette, 2005 No 50-1671). Also the assents from the Ministry of Economy of the Republic of Lithuania and the Lithuanian Environmental Investment Fund were taken into consideration in the decision making procedure.

In the Communication No (1.12-01)-3-1169 of 20th February 2007 on Joint Implementation Project, Ministry of Economy has made its conclusions upon the implementation of Mockiai wind power project. The communication states that the concept of the wind power project is in compliance with:

- ✓ Criteria of the projects eligible to underlying joint implementation, listed in Strategic Guidelines for Implementation of Joint Implementation Mechanism set force under Kyoto Protocol to the United Nations Frameworks Convention on Climate Change and approved by the Order No D1-279/4-193 of the Minister of Environment and the Minister of Economy of the Republic of Lithuania of May 19, 2004 (Official Gazette, 2004 No 86-3146);

- ✓ Provisions of National Energy Strategy, concerning the Procedures for Promotion of Manufacture and Purchase of Renewable Energy Resources, approved by Seimas of the Republic of Lithuania by Resolution No IX-1130 of October 10, 2002 (Official Gazette, 2004 No 9-228).

UAB Iverneta has won two tenders for the right to build wind power plants in area No 4. On a basis of the tendering results Ministry of Economy has issued permits No LP-0084 and No-0120 for *UAB Iverneta* to increase electric power production capacity for 6 x 2 MW.

Once the draft determination report is available, the necessary request to issue a host country's Letter of Approval will be made to the relevant Lithuanian authorities.

Written approval by the Host Party involved, including the necessary authorisations, will be attached to the final PDD.

Investor Country Approval

The investor country approval will be issued by a selected investor country prior to the first verification of the project.

SECTION B. Baseline

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

The baseline is the amount of GHG that would be emitted to the atmosphere during the crediting period of the project, i.e. during 2010-12, in case the project was not implemented.

BASREC Regional Handbook on Procedures for Joint Implementation in the Baltic Sea Region (Version 2 – June 2006) indicates three methods of baseline approach:

1. Existing actual or historical greenhouse gas (GHG) emissions, as applicable;
2. Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment;
3. Average emissions of similar projects undertaken in the previous 5 years, in similar social, environmental and technological circumstances, and whose performance is in the top 20 per cent of their category.

The baseline is calculated referring to historic data as this method is best suited for Lithuanian power market. Approved CDM ACM0002 methodology is not used for the baseline calculation due to the following reasons:

1. Lietuvos Elektrine, power plant with the second largest installed capacity in Lithuania (after Ignalina nuclear power plant –INPP) is operating on the power grid as a marginal plant. It covers all power demand which is remaining after all other power producers have supplied their quota power to the grid. Hence, by simply including all these power plants operating on the grid (excl. INPP) would bias the Operating Margin emissions factor.

2. There is an overcapacity of installed power in Lithuania, so only very few new power plants are built. Because of that, it is impossible to calculate properly the Build Margin emissions factor.

Taking into consideration the specifics of the Lithuanian power market, the methodology based on historical data was developed in mid 2006 by a consulting company *Ekostrategija*. The methodology is described below and was also used when developing other similar JI projects in Lithuania (e.g. Rudaiciai, Benaiciai, Sudenai and Lendimai JI projects)
The Rudaiciai and Benaiciai JI projects have already been approved by the JISC among the very first JI projects.

GHG emissions from production of electric power depend on type of fuel used and the efficiency of installations in which fuel is combusted. Thus, for baseline calculation it is important to know which power plants will reduce production due to the supply of additional electric power, generated in a JI project. This can be easily determined knowing the structure of Lithuanian power network. When the manufacturers of electric power supply all quota power to integrated Lithuanian power grid, the rest of power demand is covered by power produced in Lietuvos elektrine (Lithuanian Power Plant). Taking this into consideration, we can say that in case of additional power supply to the grid, the production will be reduced in Lietuvos elektrine. Therefore, in order to calculate GHG emission reductions, resulting from implementation of JI projects related to production of electric power, it is necessary to know the amount of CO_2 released to the atmosphere while producing 1MWh of electric power in Lietuvos elektrine.

For determination of the baseline we use fuel consumption and production efficiency data provided by *AB Lietuvos elektrine* as well as production of electric and thermal power in Lietuvos elektrine in 2002-

2005 (Table 4). For evaluation of the emission reductions we also use forecasts of power production in Mockiai power park, provided by *UAB Iverneta*.

Table 4. Energy production and fuel consumption in Lietuvos elektrine

Year	Electric power produced (MWh)	Thermal power produced (MWh)	Natural gas ($1000nm^3$)	Fuel oil (t)	Orimulsion (t)
2002	736,604	202,060	199,104	7,355	52,534
2003	723,858	195,553	225,813	5,241	21,238
2004	745,372	212,399	207,690	2,750	55,501
2005	1,072,814	199,383	280,559	1,815	86,160

Source: Lietuvos Elektrine; Lietuvos Energetika. Energy in Lithuania 2004. Lietuvos energetikos institutas, 2005

The amount of fuel consumed is transferred to oil equivalents using such factors: natural gas – 0.800 toe/1000n m^3, fuel oil – 0.955 toe/t, orimulsion – 0.660 toe/t (2) [5].

Table 5. Fuel consumption at Lietuvos elektrine, expressed in oil equivalents

Year	Natural gas (toe)	Fuel oil (toe)	Orimulsion (toe)
2002	159,289	7,025	34,675
2003	180,657	5,005	14,018
2004	166,158	2,626	36,633
2005	224,455	1,733	56,869

Hereafter, we calculate the percentage of each type of fuel, being consumed in every year (3).

Table 6. Proportion of fuels consumed at Lietuvos elektrine

Year	Natural gas (%)	Fuel oil (%)	Orimulsion (%)
2002	79.25%	3.49%	17.25%
2003	90.47%	2.51%	7.02%
2004	80.89%	1.28%	17.83%
2005	79.30%	0.61%	20.09%

According to calorific values of fuel CO_2 emission factors are estimated for fuel, expressed in tones of oil equivalents (4).

[5] P. 20, Lietuvos Energetika. Energy in Lithuania 2004. Lietuvos energetikos institutas, 2005

Table 7. CO_2 emission factors

Natural gas	Fuel oil	Orimulsion
tCO2/nm3	tCO2/t	tCO2/t
0.00189605	3.1028478	2.22683985
tne/1000 nm3	tne/t	tne/t
0.80002867	0.955065574	0.660041566
tCO2/tne	tCO2/tne	tCO2/tne
2.369981446	3.24883221	3.373787295

Source: Statistical Department of Lithuania. Order on the approval of the methodology for the calculation of the balance of fuel and energy, Annex I. 24. 11.2004,(Official Gazette 2004, No172-6363), National GHG inventory report 2007 of the Republic of Lithuania

Total annual amount of CO_2 emitted by Lietuvos Elektrine is calculated by multiplying the amount of each type of fuel consumed annually (expressed in toe) by the corresponding emission factor tCO_2/toe.

$$T_{CO2} = (F_{Gas} \times EF_{Gas}) + (F_{HFO} \times EF_{HFO}) + (F_{Orm} \times EF_{Orm})$$

T_{CO2} - total annual amount of CO_2 emitted by Lietuvos elektrine;
F_{Gas} – annual consumption of natural gas at Lietuvos elektrine, 1000 m^3
F_{HFO} – annual consumption of Heavy Fuel Oil at Lietuvos elektrine, tonnes
F_{Orm} – annual consumption of Orimulsion at Lietuvos elektrine, tonnes
EF_{Gas} - CO_2 emission factor for Natural gas, tCO_2/toe
EF_{HFO} - CO_2 emission factor for Heavy fuel oil,, tCO_2/toe
EF_{Orm} - CO_2 emission factor for Orimulsion, tCO_2/toe

Table 8 shows the emissions from each type of fuel at Lietuvos elektrine.

Table 8. Fuel specific CO_2 emissions at Lietuvos elektine

Year	Natural gas, tCO_2	Fuel oil, tCO_2	Orimulsion, tCO_2	**Total: tCO_2**
2002	377,512	22,821	116,985	517,318
2003	428,153	16,262	47,294	491,709
2004	393,791	8,533	123,592	525,916
2005	531,955	5,632	191,865	729,451

Amount of CO_2 emissions, released while producing thermal power in Lietuvos elektrine, is calculated as follows:

$$H_{CO2} = \sum \frac{H_{LE}}{E_h \cdot K_{toe}} \cdot R_{\%} \cdot K_{tCO2/toe};$$

H_{CO2} – CO_2 emissions, generated while producing thermal power;
H_{LE} – Annual amount of thermal power produced;
E_h - Efficiency of thermal power production in Lietuvos elektrine (88.1%, see below);
K_{toe} – Coefficient for transfer of thermal power to conditional fuel (toe - tonnes of oil equivalents). It is equal to 11.63 (Source: Energy in Lithuania 2004);
$R_{\%}$ - Percentage of each type of fuel within the annual fuel consumption;
$K_{tCO2/toe}$ – Emission factor for one unit of conditional fuel (tne - tonnes of oil equivalents) of different fuel types.

To calculate efficiency of thermal power production in Lietuvos Elektrine, we have considered the data for consumption of conditional fuel per 1 MWh of heat energy produced, presented by AB Lietuvos Elektrine. These figures were obtained by using an internal enterprise's methodology and are presented in Table 9.

Table 9. Consumption of conditional fuel to produce 1 MWh of heat energy at Lietuvos elektrine

Year	tce/MWhe
2002	0.136
2003	0.141
2004	0.141
2005	0.140

Source: Lietuvos Elektrine

Fuel consumption was transferred to the efficiency of thermal power production (Table 10).

Table 10. Efficiency of thermal power production at Lietuvos elektrine

Year	Efficiency of thermal power production
2002	90.5%
2003	87.1%
2004	87.1%
2005	87.6%
Average	**88.1%**

As it can be seen from the table, the average thermal power production efficiency rate in "Lietuvos elektrine" is 88.1%.

Based on the above formula, the amount of CO2 emissions released while producing thermal power in Lietuvos elektrine is calculated as following in Table 11.

Table 11. Emissions attributable to thermal power production at Lietuvos elektrine

	Natural gas, tCO2	Fuel oil tCO2	Orimulsion, tCO2	CO2 emissions (t)
2002	37,041	2,239	11,478	50,759
2003	40,924	1,554	4,520	46,998
2004	39,740	861	12,472	53,073
2005	36,571	387	13,190	50,148

CO_2 emissions released for production of electric power are calculated by deducting the amount of CO_2 attributable to heat production from the total CO_2 amount released by Lietuvos elektrine.

$P_{CO2} = T_{CO2} – H_{CO2}$

P_{CO2} – annual CO_2 emissions attributable to power production at Lietuvos elektrine, tCO_2
T_{CO2} - total annual amount of CO_2 emitted by Lietuvos elektrine;
H_{CO2} – annual CO_2 emissions attributable to heat production at Lietuvos elektrine, tCO_2

To calculate emissions factor, CO_2 emissions attributable to power production were divided by annual power production. The results are presented in Table 12.

Table 12. Emissions attributable to power production at Lietuvos elektrinė

Year	Power production, MWh	Emissions, t CO2	tCO2/MWhe
2002	736,604	466,559	0.633
2003	723,858	444,711	0.614
2004	745,372	472,843	0.634
2005	1,072,814	679,303	0.633
Average	819,662	515,854	0.629

To evaluate the correctness of the results obtained, we compared them to the results obtained and provided by AB Lietuvos Elektrine. Calculations made by the technicians of AB Lietuvos Elektrine gave such results: 0.667 tCO2/MWhe for 2005 and 0.726 tCO2/MWhe for the period before 2012 forecast.

Considering the results of our calculation and ones presented by AB Lietuvos Elektrine it is possible to draw the conclusion that using emissions factor of 0.629 tCO2/MWhe would represent a conservative approach to the baseline as it would result in fewer CO2 reductions compared to the one calculated by AB Lietuvos Elektrine methodology.

Lithuania's National allocation plan for 2005-2007 forecasts an increase in Orimulsion share from 20% (56.9 Ktoe) in 2005 to 40% by 2008 in the fuel mix of Lietuvos elektrine. The forecasted increase in the Orimulsion share would definitely increase baseline emissions factor. Hence, the current emissions factor - 0.629 tCO2/MWhe is considered to be conservative and will be used as an ex-ante value to calculate CO2 reductions from Mockiai Wind Power JI Project.

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:

Additionality of the project is proven using the ver. 2 of the CDM Tool for the Demonstration and Assessment of Additionality as approved by the CDM Executive Board.

Baseline calculation presented in Section B.1 shows that production of an additional 1 MWh of electric power reduces CO2 emissions at average by 0.629 tCO2. With an estimated annual power production of 37,346.1 MWh the wind farm of the proposed JI Project would thus reduce CO2 emissions annually by 23,491 tonnes.

Step 0. Preliminary screening based on the starting date of the project activity

Not applicable as a crediting period starts only after the project registration.

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

Sub-step 1a. Define alternatives to the project activity:

A) The proposed project activity not undertaken as a JI project activity;

B) Continuation of the current situation (no project activity or other alternatives undertaken); Electric power in the Lithuanian network will be produced in existing and new cogeneration power plants.

Sub-step 1b. Enforcement of applicable laws and regulations:

The existing legal and regulatory requirements in Lithuania is in favour of alternative B - continuation of the current situation and is not in favour of alternative A - proposed project activity not undertaken as a JI project activity.

The obligatory purchase tariff for wind power established by the governmental regulation on promotion of electric power produced from renewable sources[6] is not sufficient for commercial development of the wind power sector. (Sub-step 2c).

Step 2. Investment analysis

Sub-step 2a. Determine appropriate analysis method

Simple cost analysis (option I) is not applicable for the project as the income from sale of 'carbon credits' is not the only source of revenues for the project.

Benchmark analysis (option III) is not applicable either as no investment benchmarks for power sector exist in Lithuania. The power market in Lithuania is still partly regulated. Power producers are given

[6] Lithuanian government's decision No. 1474, Dec. 5 2001

quotas to deliver power at a certain price. Over-quota power is delivered at the market price (lower than the quota price). Both, quota and the power price differ on a case by case basis.

The *investment comparison analysis (option II)* will be used for this project as it is the only applicable method.

Sub-step 2b. – Option II. Apply investment comparison analysis

NPV (Net Present Value) and IRR (Internal Rate of Return), as the most common financial feasibility indicators will be used for investment comparison analysis. NPV is the difference in the present values of cash outflows and inflows, the higher the NPV, the more attractive the project is for investors; IRR estimates the discount rate used in order to obtain NPV equal to 0. IRR is commonly calculated on total investment (disregarding capital structure and depreciation rate) to compare the project with similar projects or on the equity part of investment, which is relevant indicator for investors.

Sub-step 2c. Calculation and comparison of financial indicators

Given investor requirements and the risks associated with this project, a higher long-term tariff is required to make the project financially viable if the project is not implemented as a JI project.

Financial modelling proves that the financial income from sale of Emission Reduction Units during 2010-12 improves the IRR of the project by 0.5 percentage points and enables to generate a sufficient NPV of the investment, thus making the project attractive for the investors to undertake. The prepayment from the sale of carbon credits can also be utilized as part of the equity capital.

In comparison, an average IRR for new natural gas based cogeneration power plants normally is 8-10% Moreover EU structural funds are available for new cogeneration plants but not for wind power projects in Lithuania. With the EU structural support IRR of new cogeneration plants increases up to 15%. This fact makes cogeneration option more attractive for the investors compared to wind power.

An Excel file “Sensitivity analysis Mockiai” with detailed calculations has been made available to the Independent Entity during determination.

Sub-step 2d. Sensitivity analysis

Power production of the wind farm and ERU price has been altered to see the effect on projects’ profitability.

Table 13. Sensitivity to change in power production, Mockiai

	-20%	-10%	0%	+10%	+20%
Production, MWh	29877	33612	37346	41081	44815
IRR*	3,0%	5,6%	8,1%	10,6%	13,1%

*Excl. sale of ERUs

Table 14. Sensitivity to change in ERU price, Mockiai

ERU price, EUR	-100%	-50%	-20%	0%	20%	50%
IRR*	8,1%	8,3%	8,5	8,6%	8,7%	8,8%

*Incl. sale of ERUs

Step 3. Barrier analysis

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

- One of the key barriers listed in the tool for additionality assessment is, "investment barriers…Debt funding is not available for this type of innovative project activities." This is also the case with the proposed JI Project in Lithuania, as neither debt funding would be available if the project did not have JI status, especially taken today's global financial crisis. JI revenue has been considered since the early stages of development of this project and is an integral part of financing the project.

- No financial support for renewable electricity generation is foreseen under the EU structural funds or any other multilateral or bilateral sources.

- Establishment of wind power plants has become more expensive over the past few years due to a change of leading wind turbine suppliers' pricing strategy, increasing price of components and raw materials (steel), and increasing civil construction price in Lithuania.

- Tender rules for grid connection in dedicated zones require a significant initial down-payment which the developers are more willing to make when carbon financing is secured or foreseen.

- There is insecurity regarding purchase of wind power when trading on hourly basis comes into effect after the establishment of the spot market. AB "Lietuvos Energija" has the right to disconnect the wind power-plant park from the power network in case of the system overload.

- The know-how related to wind power technology and project implementation has been limited in Lithuania.

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

- Fossil fuel based power generation in Lithuania does not face the same limitations on availability of finance and many projects may not even require external funding as they can be financed internally by AB Lietuvos Elektrine.

- Also EU structural funds are available for new cogeneration power plants and for modernization of existing ones.

- There is more know-how available for cogeneration than for wind power in Lithuania.

Step 4. Common practice analysis

Sub-step 4a. Analyze other activities similar to the proposed project activity:

No commercial scale wind farms exist in Lithuania and all new projects are being implemented under the Joint Implementation scheme. The JI projects would be excluded from the common practice analysis.

Table 15. Wind power plants developed under the JI scheme Lithuania

Title	Estimated emission reductions 2008-12
Rudaiciai Wind Power-Plant Project	231,155
Benaiciu wind power stations park	148,550
Sudenu and Lendimu power stations park	110.940
Ciuteliu Wind Power Plant Project	235,851
Mockiu Wind Power Plant Project	67,703
Kreivenu Wind Power Plant Project	127 244

Source: Lithuania's National Allocation Plan for Greenhouse Gas Emission Allowances for the Period 2008 to 2012, NAP version 18.04.2007

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

The only wind farm that was built in Lithuania (near Kretingale) by not utilizing the JI scheme is still not in operation. Institutional and legal barriers prevented the wind farm from becoming operational. The wind power technology and civil construction costs were also lower when that wind farm was built.

Step 5. Impact of JI registration

As explained in Step 2, if the project developer is able to sell the 'carbon credits' from the project activity, the additional revenue would improve the financial viability.

Also the example of other JI wind projects in Lithuania proves that with the JI status a wind project will be able to attract equity and debt financing, and overcome the barriers described in step 3.

a) Baseline scenario

In accordance to the baseline scenario, electric power is produced only by AB Lietuvos Elektrine. Forecasted production of electric power and CO2 emissions are presented in Table 16.

Table 16. Forecasted power production and CO2 emissions in 2008-2012 in baseline scenario

Year	AB Lietuvos Elektrine		Mockiai wind farm	
	Production of electric power (MWh)	Emissions, tCO2	Production of electric power (MWh)	Emissions, tCO2
2010	1,549,000	974,321	0	0
2011	4,974,000	3,128,646	0	0
2012	5,730,000	3,604,170	0	0

b) Project scenario:

The project scenario foresees an establishment of wind power plant at Mockiai with a capacity of 12 MW. The renewable electricity produced by the wind power plant will displace carbon intensive electricity produced from fossil fuel sources by AB Lietuvos Elektrine.

Table 17. Forecasted power production and CO2 emissions in 2008-2012 in project scenario

Year	AB Lietuvos Elektrine		Mockiai wind farm	
	Production of electric power (MWh)	Emissions, tCO2	Production of electric power (MWh)	Emissions, tCO2
2010	1,511,654	950,830	37,346.1	0
2011	4,936,654	3,105,155	37,346.1	0
2012	5,692,654	3,580,679	37,346.1	0

c) Emission reductions will occur due to the simple fact that the Baseline scenario represents a higher emission factor than the Project scenario.

Greenhouse gas emissions of the baseline scenario will exceed the emissions of the project baseline scenario by 23,491 tCO2 per year due to the additionality of the project. During the period of 2010-2012 the difference between GHG emissions of baseline and project scenarios will make 70,472 tCO_2e.

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

The BASREC JI Project Guidelines describes project boundaries as theoretical boundaries, determining the scope of project's impact on GHG emissions. The sources of GHG involved in project boundaries represent the sources involved in baseline calculations.

The project boundary is drawn around the physical boundary of the wind power plant (i.e. the wind turbines and generators) and the power plants of AB Lietuvos Elektrine, the power generation of which the wind power plants would replace.

The boundaries of the project are shown in Figure 1.

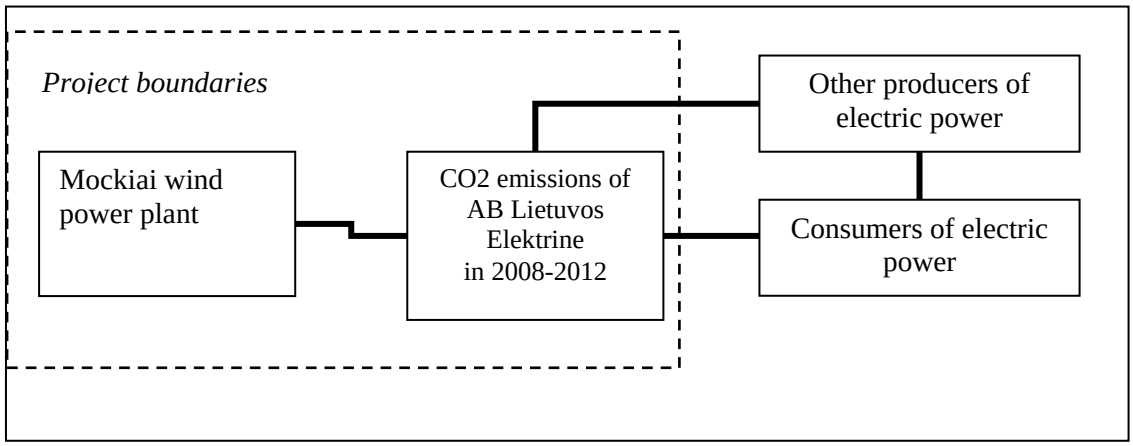


Figure 1 Project boundaries

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

Baseline Study date: Nov. 6 2007
Conducted by: Nelja Energia OÜ in cooperation with LHCarbon OÜ, represented by Hannu Lamp
Tel: +372 6 306 408, E-mail: hannu@online.ee
None of the above entities are considered as project participants.

Other baseline studies have been recently undertaken due to the development of other wind power JI projects in Lithuania. The baseline study for the Sudenai and Lendimai Wind Power JI Project has been used for this PDD[7]. A positive determination report has been issued to the project by TÜV-SÜD.
This baseline study in turn was based on the baseline study of the Rudaiciai Wind Power Park JI Project published in December 2006 at the UNFCCC website.
It is important to note here that the determinations of the Rudaiciai Wind Power Park as well as Benaiciai Wind Power Park JI projects has already been finalized in accordance with the JI Track 2 procedure.

SECTION C. Duration of the small-scale project / crediting period

C.1. Starting date of the project:

The wind farm construction will start by QI 2009.

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

20 years 0 months.

C.3. Length of the crediting period:

Total crediting period: 3 years, 0 months (2010-2012).
Starting date: January 1, 2010

Pending decisions on the framework for generation and transfer of emissions reduction credits post 2012, the project developer may seek the right to earn credits for the period 2013 to 2017 in addition to emission reductions units (ERUs) generated under the first commitment period of the Kyoto Protocol (2010 to 2012).

[7] JI PDD of Sudenai and Lendimai Wind Power Joint Implementation Project, PDD ver. no. 6, Nov. 6 2007

SECTION D. Monitoring plan

D.1. Description of monitoring plan chosen:

The main requirements, being imposed on the monitoring plan, are pointed out in the Annex B of Chapter 6 of the Kyoto protocol (Decision 9/CMP.1, "Decisions adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol"). The following points have to be considered in the monitoring plan:

- All the data necessary to the evaluation or the collection and storage of the data from all the sources of anthropogenic emissions and/or leakage. These data are being collected and stored during all the crediting period;
- The collection and storage of all the data necessary for the calculation of the baseline from all the anthropogenic sources and leakage during all the crediting period;
- The determination of all the potential sources, the collection of information about them and storage of it in case of increasing GHG emissions from the anthropogenic sources as well as leakage that have intense and significant impact on the project during its crediting period and that are outside the project boundaries. The project boundaries must involve all the sources and leakage of anthropogenic pollution under the maintenance of the participants of the project;
- The storage of the information about the state of environmental protection according to the requirements of the hosting country;
- The assurance of the quality of the monitoring and the procedures of control;
- The periodic calculation of the saved GHG, according to all the sources and leakage, if such are present.

D.2. Data to be monitored:

Data to be collected in order to monitor emission reductions from the project, and how these data will be archived:							
ID number *(Please use numbers to ease cross-referencing to D.2.)*	Data variable	Source of data	Data unit	Measured (m), calculated (c), estimated (e)	Recording frequency	Proportion of data to be monitored	How will the data be archived? (electronic/ paper)
1	EG_y – Net electricity supplied to the grid	Project proponent	kWh	Measurement. Directly measured with electricity meter, and checked with sales data	Monthly	100%	Electronic and in paper form

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.
1. EG_y	The maximum allowed deviation of the meters is 0,5% (at 110 kV)	Data will be directly measured with metering equipment at the connection point to AB Lietuvos Energia grid at the 110 kV side of the transformer. This equipment will be sealed, calibrated and checked periodically for accuracy. In addition, all metered data will be double checked by receipts of electricity sales, with SCADA system as back-up.

D.4. Please describe the operational and management structure that the project operator will apply in implementing the monitoring plan:

The basic guidelines of the Monitoring Plan are as following:

The project proponent will measure only the net electricity output of the wind power plant. All other data has already been collected at the beginning of the project, and has been presented in the Baseline Study and PDD.

In order to ensure a successful operation of the project and the credibility and verifiability of the emission reductions (ERs) achieved, UAB Iverneta recognises that the project must have a well defined management and operational system. The management and operation of the project is the responsibility of UAB Iverneta i.e. ensuring the environmental credibility of the project through accurate and systematic monitoring of the project's implementation and operation for the purpose of achieving trustworthy ERs. UAB Iverneta will outsource the daily monitoring and verification tasks to 4Energia which will as earlier described also be responsible for operating the wind turbines.

Data handling and quality assurance:
Data will be entered on a monthly basis to an MS Excel worksheet on basis of information provided by the power purchaser (AB Lietuvos Energia) on kWh delivered to the grid on basis of the installed bi-directional power meter. Data will be double-checked with information from the wind farm's SCADA system which will be calibrated with the meter. The power purchaser will also be asked to report on scheduled repair/replacement of the power meter. Procedures in case of meter failures will be established.

UAB Iverneta's manager Tadas Navickas will be in charge of and accountable for the generation of ERs including monitoring, record keeping, computation of ERs and verification. He will officially sign-off on all monitoring worksheets that are prepared by 4Energia and printed on a monthly basis. Regular back-ups of the monitoring and SCADA databases will be made.

Reporting:
UAB Iverneta in cooperation with 4Energia will prepare a brief annual monitoring report which will include: information on overall project performance, emission reductions generated and comparison with targets. The report will be provided to the verifier and to the Lithuanian JI focal point on an annual basis or more frequently if so decided.

Training:
It is UAB Iverneta's and 4Energia's responsibility to ensure that the required capacity and internal training is made available to its operational staff to enable them to undertake the tasks required by the MP. Initial staff training will be provided by 4Energia before the project starts operating and generating ERs.

Corrective Actions:
UAB Iverneta/4Energia will periodically undertake performance reviews as part of its ongoing operation and management. Where corrective actions are required by the Lithuanian authorities or the verifiers, these will be acted upon within a reasonable timescale as dictated by relevant authorities.

Data collection:

ID number	Data variable	Responsible person	
		Name	Position and department
MP1	EGy – Net electricity supplied to the grid (kWh)	Tadas Navickas	Member of the Management Board

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

Tadas Navickas, Iverneta UAB. Iverneta UAB is a project participant as listed in Annex 1.

SECTION E. Estimation of greenhouse gas emission reductions

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

Wind power does not create any anthropogenic greenhouse gas emissions in operation, so project emissions are zero.

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

There are no direct or indirect emissions outside the project boundary attributable to the project activity.

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

Since there are no leakages: E.1 + E.2 = E.1 (0)

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

Baseline emissions (BE) are calculated as following:

BE_y (tCO_2) = EG_y (MWh) x EF_y (tCO_2/MWh)
EG_y – Net electricity supplied to the grid
EF_y – Emission factor of the power plants of AB Lietuvos Elektrine

Please refer to Section B for detail on how the emission factor (0.629 tCO2e/MWh) is calculated.

	2010	2011	2012	∑ 2008-2012
Baseline emissions (in t CO_{2e})	23,491	23,491	23,491	70,472

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

	2010	2011	2012	∑ 2008-2012
Baseline emissions = Emission reductions (in t CO_{2e})	23,491	23,491	23,491	70,472

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

Year	Estimated project emissions (tonnes of CO2 equivalent)	Estimated leakage (tonnes of CO2 equivalent)	Estimated baseline emissions (tonnes of CO2 equivalent)	Estimated emission reductions (tonnes of CO2 equivalent)
Year 2010	0	0	23,491	23,491
Year 2011	0	0	23,491	23,491
Year 2012	0	0	23,491	23,491
Total (tonnes of CO2 equivalent)	0	0	70,472	70,472

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:

According to the Communication No (9.14.5.)-V4-4298 of Klaipeda Regional Department of Environment of Lithuanian Ministry of Environment of 17August 2006, the conclusion, concerning the environmental impact of the planned economic activity, was drawn that the environmental impact assessment (EIA) of the planned economic activity of *UAB Iverneta* – installation and maintenance of wind power plants – is not required.

The above stated conclusion was drawn because (the extract from the above mentioned documents):

- The planned economic activity is scheduled to execute in conditionally large territories, thus there is possibility to project the positioning of such wind power plants so that the maintenance of impact zones will not condition the residential environment and the requirements, set for the protection zones of the immovable culture valuables in special conditions of the usage of land and forest, would be met;

- There are no residential areas near the location of planned economic activity;

- National Energy Strategy approved by the resolution No.IX-1130 of Seimas of the Republic of Lithuania of October 10, 2002 (Official Gazette., 2002, No 99-4397) schedules, that aiming to the best use local resources, including wind energy, and at the same time to reduce the import of fuel and to establish new work places as well as to improve the state of environmental protection, the State will promote the implementation of the projects on use of wind, water and sun power and the experience of installation and maintenance will be collected;

- At the territory of planned economic activity it is not forbidden to install and maintain the equipment of planned economic activity.

Potential environmental impacts are described below.

Atmosphere

The project is considered to result not only in reduction of GHG but also in reduction of other pollutants such as SO_2 and NO_x. These pollutants are released to the atmosphere while generating electric power at Lietuvos elektrine. To calculate reductions of SO_2 and NO_x, the following formulas are used:

$E_{SO2} = P_{MWh} \times EF_{SO2}$

Where:
P_{MWh} - is the electric power produced in the park annually, MWh;
EF_{SO2} – is the emissions factor, defining how many tones of SO_2 emerge, while producing 1 MWh of electric power.

$E_{NOx} = P_{MWh} \times EF_{NOx}$

Where:
P_{MWh} - is the electric power produced in the park annually, MWh;
EF_{NOx} - is the emissions factor, defining how many tones of NO_x emerge, while producing 1 MWh of electric power.

The results of projected SO_2 and NO_x reduction are given in Table 5.

Table 5 SO_2 and NO_x emission reductions

Pollutant	kg of pollutant/MWh	Amount of pollutant saved during the crediting period
SO_2	0.45	13.89 t
NO_x	0.95	29.32 t

Water

There are no open water pools within the project area. There is no risk to pollute the surface and/or ground water during the maintenance of the wind farm project. Water is not used for technological purposes in the wind farm so wastewaters are not produced.

Soil

There will not be any significant impact on soil quality. The project area mainly consists of farmlands. During the construction process, in the power plant foundation areas, road construction areas and cable laying areas the loam (upper layer of the soil) which is 0.2-0.3m thick, will be separated and stored apart from other soil layers. After construction works are finalised, the loam will be re-cultivated and planted according to projects plans in order to avoid soil erosion.

In case of wind farm liquidation after the forecasted operation time of the project it is planned to dismantle all wind farm including foundations and re-cultivate loam. If road accesses are not used for other purposes they will also be deconstructed and loam re-cultivated in their place.

Flora / Fauna

Based on data of operating wind power plants, there is no evidence of the impact of wind power plants on biological diversity. Hence, measures to recreate environmental biodiversity are not necessary.

There are no envisaged tree cuttings or relocation in the project area. A grass-plot will be set in the area.

There are no wild animal accumulation, feeding, mating, wintering of migration points in the project area that should be protected.

Impacts on birds

Mockiai wind farm is far away from bird migration routes. The probability of birds colliding with the wind power plants is very low. Therefore the impacts on birds are considered negligible. A study from the Danish Ministry of the Environment states that high voltage power lines is much greater danger to birds than the wind turbines themselves (ref: http://www.windpower.org/en/tour/env/birds.htm).

According to results of the studies performed by Danish and German scientists – wind power plants have no impacts on migration routes of birds. The studies in EU show that the risk of bird collisions with wind power plants is much smaller compared to the risks of bird collision with high voltage air power lines, cars, skyscraper, glass facades of buildings. After long term observations, the conclusions were drawn that birds have changed their migration routes according to new obstructions evolved on their way. The research also shows that wind farms have smaller impacts on birds than the tall single buildings (source: www.iblumweltplanung.de).

Impacts on animals

Noise, shadow and blinking effects and landscape fragmentation effect made by wind farm can disturb natural wildlife. However, Mockiai wind farm is surrounded by farmlands and rural areas situated away from wild animal habitats. Hence, the impact on wild animals is considered negligible.

Protected areas

There are no protected areas within or nearby the project site. There are no protected species of flora or fauna within or close to the project site. Among other sources, such data was verified at the State Service for Protected Areas under the Ministry of Environment. Nearest protected area is within a sufficient range away from the project site(15 km)

Cultural heritage

Before starting excavation works, the area was explored for archeological objects in line with the Cultural heritage law of Lithuania. No valuable excavations were found in the project area.

Waste

Waste generation in a wind farm is minimal. Some waste will form from oil lubricants that are used in wind turbines as well as some spare parts that are substituted with new ones during the operation and maintenance period of wind farm. Any this waste will be removed from the project site and recycled by the maintenance service provider.

Physical impact

Electromagnetic field

Electromagnetic field is formed around high voltage air power lines, at the transformer substations and other open power installations. Electromagnetic field is measured by the intensity of electric field (E, V/m) and by the intensity of magnetic field (H, A/m). Permissible intensity of electric field in residential (building) areas is up to 1kV/m without limitations for allowed exposure time and up to 5 kV/m in “green” zones (parks, gardens etc) without limitation for exposure time. (HN 104: 2000).

The potential sources of electromagnetic field in wind farm (generators and transformers) are generating low voltage and up to 100kW power capacity. The intensity of electric and magnetic fields are lower than the permissible level for residential areas (1kV/m). Electro-technical equipment of wind power plants is mounted at 100 m height from the surface in metal, connected to earth baskets, which perform as electromagnetic shields. Zone of electromagnetic impact is not present in wind farm territory or in neighbouring areas.

Noise

The noise modelling study of the Mockiai wind farm was made for so called sanitary area of 350 m around the wind park in pursuance to Lithuanian Hygiene Code HN 33-2003 Acoustic Noise – “Allowable Levels in the Residential and Working Environment. General Requirements for Noise Measurements”. The study shows that in the nearest residential areas noise level was in range of 37,1 – 46,2 dBA and do not exceed permitted noise levels.

Visual impact

Wind power plants make landscape more urbanized. However, if the right planning concept is used – a visual impact can be minimised. The positioning of wind power plants is made optimal to integrate it into the landscape and to make minimal impact to neighbouring territories.

Also, wind power plants, like all tall buildings cast shadow on the neighbouring areas when the sun is visible. It also causes a blinking effect due to rotation of wind turbine wings. The shadowing effect is not relevant for the project. According to the preliminary calculations – shadows will be cast not more than 350 m from the wind power plants. Bearing in mind that the closest living areas are 470-530 meters away – the shading effect for the planned Mockiai wind farm is not considered as a significant impact.

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:

The environmental impact assessment is not required by law, and the environmental impacts are not considered as significant.

SECTION G. Stakeholders' comments

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

Compulsory public consultation procedure, that gives opportunity to all stakeholders to participate in decision making procedure, has been undertaken during detailed planning. Information about the start of the detailed planning process has been announced in the local press on the 07-11-2006. No remarks or proposals have been received.

All information on the proposed solutions of the detailed plan has been made public during the period 28-11-2006 to 18-12-2006. Also date and venue of the stakeholders meeting has been announced in the local newspaper on 28-11-2006.

The stakeholder meeting has been held 19-12-2006 in Slutes municipality premises. 5 participants have registered to the meeting. No remarks or suggestion have been rised during the meeting so the detailed plan has proceeded with further approvals.
The information about the public hearings of the detailed plan is a part of the detailed plan itself and is available for further chek –up if needed.

Annex 1

CONTACT INFORMATION ON PROJECT PARTICIPANTS

Organisation:	*UAB Iverneta*
Street/P.O.Box:	Sv ignoto 1
Building:	
City:	Vilnius
State/Region:	
Postal code:	LT 01120
Country:	Lithuania
Phone:	+370 685 21249
Fax:	-
E-mail:	tadas.navickas@4energia.ee
URL:	
Represented by:	Tadas Navickas
Title:	Director
Salutation:	Mr
Last name:	Navickas
Middle name:	
First name:	Tadas
Department:	
Phone (direct):	+370 685 21249
Fax (direct):	
Mobile:	
Personal e-mail:	tadas.navickas@4energia.ee