Determination Report

Determination of the "Rudaiciai Wind Power Park Project", Lithuania

Report No. 872011

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Carbon Management Service
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Industrie Service

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Subject:	Determination of a JI Project
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Client:	VEJU SPEKTRAS Ltd Razes 5 LT-97011 Vydmantai, Kretinga
Contract approved by:	Thomas Kleiser
Report Title:	Determination of the JI-Project: “Rudaiciai Wind Power Park Project”, Lithuania
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Summary:

The Certification Body ”Climate and Energy” of TÜV SÜD Industrie Service GmbH has been ordered by the Lithuanian company VEJU SPEKTRAS Ltd. in Kretinga, Lithuania, to determine the above mentioned JI project.

The determination of this project has been performed by document reviews, an audit at the location of the project and interviews at the offices of the project owner and its technical advisor.

The need for corrective action request (CAR) and clarification requests (CR) is described in the report and the attached determination protocol.

As result of this procedure, it can be confirmed that the submitted project documentation is in line with all requirements set by the Marrakech Accords and the Kyoto Protocol.

Additionally the assessment team reviewed the estimation of the projected emission reductions.

We can confirm that the indicated amount of 231 155 tons CO_2 (ERUs) during the intended crediting period from January 1st, 2008 – December 31st, 2012 represents a very conservative estimation using the assumptions given by the project documents.

Work carried out by:	Klaus Nürnberger (Assessment Team Leader)	Internal Quality Control by: Werner Betzenbichler

Abbreviations

BM	Build Margin
CAR	Corrective action request
CR	Clarification request
DFP	Designated Focal Point
DP	Determination Protocol
EIA	Environmental Impact Assessment
ER	Emission reduction
ERU	Emission Reduction Unit
GHG	Greenhouse gas(es)
GSP	Global Stakeholder consultation Process
JI	Joint Implementation
JISC	JI Supervisory Committee
KP	Kyoto Protocol
MP	Monitoring Plan
MS	Management System
NAP	National Allocation Plan due the EU Emissions Trading Scheme
OM	Operating Margin
PDD	Project Design Document
PIN	Project Idea Note
SCADA	Supervisory Control And Data Acquisition
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change

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1 INTRODUCTION

1.1 Objective

The Lithuanian company VEJU SPEKTRAS Ltd. has commissioned TÜV SÜD Industrie Service (in short: TÜV SÜD) to make a determination of the "**Rudaiciai Wind Power Park Project" in** Lithuania (in short: Rudaiciai wind farm) with regard to the relevant requirements for JI project activities. The determination serves as a design verification and is a requirement for all JI projects submitted to the JISC. The purpose of a determination is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Determination is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reduction units (ERUs).

UNFCCC criteria refer to the Kyoto Protocol Article 6 criteria and the Guidelines for the implementation of Article 6 of the Kyoto Protocol as agreed in the Marrakech Accords.

1.2 Scope

The determination scope is defined as an independent and objective review of the project design document (PDD), the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. TÜV SÜD has employed a risk-based approach in the determination, focusing on the identification of significant risks for project implementation and the generation of ERUs.

The determination is not meant to provide any consulting towards Veju Spektras Ltd.. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 GHG Project Description

The project foresees the erection of a wind farm near the west coast of Lithuania, close to the city of Kretinga. The Rudaiciai wind farm will have a capacity of 30 MW (15 Enercon E-70 turbines à 2,0 MW) and qualifies as a JI-project. It will feed into the Lithuanian national grid a total estimated supply of 73 852 MWh per year, resulting in a projected load factor of 28 percent. The electricity generation by the wind turbines will replace energy which is produced in the "Lithuanian power plant (Lietuvos elektrine)".

Rudaiciai wind farm should have been commissioned at the end of 2006. The generated ERUs are supplied by VEJI SPEKTRAS, a private wind power development company, located in Kretinga, Lithuania. The project documentation has been developed by the project proponent, Ekostrategija, located in Vilnius, Lithuania, with additional support by other institutions.

2 METHODOLOGY

In order to ensure transparency, a determination protocol was customised for the project. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from validating the identified criteria. The determination protocol serves the following purposes:

- It organises, details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent determination process where TÜV SÜD has documented how a particular requirement has been validated and the result of the determination.

The determination protocol for this project consists of three tables. The different columns in these tables are described in Figure 1.

The completed determination protocol is enclosed in Appendix A to this report.

Determination Protocol Table 1: Mandatory Requirements			
Requirement	***Reference***	***Conclusion***	***Cross reference***
The requirements the project must meet.	*Gives reference to the legislation or agreement where the requirement is found.*	*This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** of risk or non-compliance with stated requirements. The corrective action requests are numbered and presented to the client in the determination report. **O** is used in case of an outstanding, currently not solvable issue, **AI** means Additional Information is required.*	*Used to refer to the relevant checklist questions in Table 2 to show how the specific requirement is validated. This is to ensure a transparent determination process.*

Determination Protocol Table 2: Requirement checklist				
Checklist Question	***Reference***	***Means of verification (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various requirements in Table 1 are linked to checklist questions the project should meet. The checklist is organised in six different sections. Each section is then further subdivided. The lowest level constitutes a checklist question.	*Gives reference to documents where the answer to the checklist question or item is found.*	*Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.*	*The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.*	*This is either acceptable based on evidence provided (**OK**), or a **Corrective Action Request (CAR)** due to non-compliance with the checklist question (See below). **Clarification** or **Additional Information** is used when the independent entity has identified a need for further clarification or more information.*

Determination Protocol Table 3: Resolution of Corrective Action and Clarification Requests			
Draft report clarifications and corrective action and additional Information requests	***Ref. to checklist question in table 2***	***Summary of project owner response***	***Determination conclusion***
If the conclusions from the draft determination are either a Corrective Action Request or a Clarification or Additional Information Request, these should be listed in this section.	*Reference to the checklist question number in Table 2 where the Corrective Action Request or Clarification or Additional Information Request is explained.*	*The responses given by the Client or other project participants during the communications with the independent entity should be summarised in this section.*	*This section should summarise the independent entity's responses and final conclusions. The conclusions should also be included in Table 2, under "Final Conclusion".*

Figure 1 Determination protocol tables

2.1 Review of Documents

A first PDD (version August 2006) was submitted to TÜV SÜD by Ekostrategija on September 06, 2006. Those documents were firstly reviewed as a pre-check. Comments were sent back in order revise the PDD before publishing. As a result of the pre-check the PDD was revised (version August 2006) and sent to TÜV SÜD on October 5, 2006 for publishing on the TÜV SÜD website www.netinform.net and ClimateL-server. This happened on October 6, 2006. As a result of the on-site visit (see section 2.2) and the desk review comments a new PDD-version (version December) was submitted to TÜV SÜD December 5, 2006. After further comments from TÜV SÜD a renewed PDD-version (PDD 01 December 2006, Rudaiciai_JI_PDD_2007-01.pdf) has been made publicly available for the consultation by global stakeholders on the JISC-Website. This version is also the basis of this determination report (draft version). Review of additional documents led to more changes in the PDD, resulting in PDD 03 (March 2007).

Due to the reply from JISC further adjustments were requested regarding referencing of additional documents. Beginning of May 2008 new versions 4 and 5 (April 2008) of PDD were provided. The version 5 of the PDD is the actual version which serves as the version for the revised submission for registration.

2.2 Follow-up Interviews

From October 30, 2006 TÜV SÜD performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of the project proponent Ekostrategija, the wind farm owner VEJU SPEKTRAS and the Municapility of Kretinga have been interviewed.

The main topics of the interviews are summarised in Table 1. The complete and detailed list of all persons interviewed is enclosed in Appendix B to this report.

Table 1: Interview topics

Interviewed organisation	Interview topics
VEJU SPEKTRAS	Project design, monitoring plan, stakeholder comments, monitoring procedures, measurement equipment, documentation, archiving of data
Municipality Kretinga	Approval of the project, stakeholder comments, national and sectoral policy; approval procedure
Ekostrategija	Project design, baseline, monitoring plan and procedures, environmental impacts, stakeholder comments, additionality, business plan

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for TÜV SÜD's positive conclusion on the project design.

Most findings and comments during the follow-on interviews were immediately resolved and the result included into PDD v.01. A determination protocol was sent to the Ekostrategija with 15 CARs and one CRs. The most of the CARs were resolved by changes in the PDD (v. 03), the other ones and the one CR were resolved by additional information and documentation.

To guarantee the transparency of the determination process, the concerns raised and the responses given are summarised in chapter 3 below. The whole process is documented in more detail in the determination protocol in Appendix A.

3 DETERMINATION FINDINGS

In the following sections the findings of the determination are stated. The determination findings for each determination subject are presented as follows:

1) The findings from the review of the PDD (v.4) and the findings from interviews during the follow up visit are summarised. A more detailed record of these findings can be found in the Determination Protocol in Appendix A.

2) Where TÜV SÜD had identified issues that needed clarification or that represented a risk to the fulfilment of the project objectives, a Clarification or Corrective Action Request, respectively, has been issued. The Clarification, Corrective Action Requests and Additional Information Requests are stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A.

3) Where Clarification Requests and Additional Information Requests have been issued, the exchanges with Ekostrategija to resolve these Clarification and Additional Information Requests will be summarized in the determination report.

4) The conclusions of the determination are presented consecutively.

3.1 Project Design

3.1.1 Findings

The established wind turbines are of modern, state-of-the-art systems and amongst the few turbines in Baltic States with a capacity of more than 2 MW. The project reflects a professional standard scale wind park as it can be found in many European countries (where – in contrast to Lithuania - appropriate support mechanisms guarantee the profitability of such projects). In Lithuania, those wind farms are not in operation. Hence, the employed technology is good practice in the host country. It is, moreover, not likely that the project technology will be substituted by a more efficient technology.

The existing implementation schedule is ambitious but realistic. The implementation was already far advanced when the onsite-visit took place. Especially bad weather conditions could jeopardize the envisioned schedule.

In the first twelve years the turbine manufacturer will be responsible for support and maintenance and the operation of the turbines is online monitored by the manufacturer's service centre in Germany. The supplier has a service team in Liepaja, Latvia 30 km away from the wind farm site. Further a service person is foreseen to be based near Palanga/Kretinga. The provisions regarding training on-site and at the manufacturer's plant are contracted with the supplier of wind turbines.

The project starting date is clearly defined as approval date of the PIN on March 31, 2006. The crediting period is defined as being from January 1, 2008 to December 31, 2012. Also the operational lifetime of the project is mentioned with 20 years and in accordance with international practice.

Lithuania has appointed a national focal point to UNFCCC and has ratified the Kyoto Protocol. Also the DFP is officially nominated. Further the Lithuanian JI-Guidelines are published on the JISC-Website. The project is approved by the Lithuanian government as host party, represented by the Ministry of the Environment. Therefore the project ERUs are included in the reserve of the second Lithuanian NAP (2008 – 2012).

The private entity E-Kvotas, Latvia is a project participant as investing entity of this project. The Netherlands will be the investor country which issued the LoA and authorized E-Kvotas as project participant. The Netherlands have also appointed a national focal point to UNFCCC and has ratified the Kyoto Protocol. Further a DFP is officially nominated also National JI-Guidelines are available on the JISC-website.

3.1.2 Issued CARs / CRs

CORRECTIVE ACTION REQUEST #1:

The participation of Ekvotas should be confirmed.

> Response: Ekvotas confirmed participation directly by letter and email to the validation team.

CLARIFICATION REQUEST #1:

The red circle in the overview map (page 3) seems to be not exactly there where the project is located; this should be clarified.

> Response: In Rudaiciai project, picture is OK. The wrong place was marked in Benaiciai project – it was fixed.

3.1.3 Conclusion

The project itself fulfils the prescribed requirements completely. The foreseen technology does reflect current good practice for generation of electricity using landfill gas. The technical data are consistent and plausible.

The project uses technology that goes beyond the state of the art in the host country. It is moreover very unlikely that the foreseseen project technology will be substituted during the crediting period by a still more efficient technology .

The PDD contains information how training, operating, controlling, maintenance will be organized and managed. The aspects regarding future responsibilities and quality assurance are fixed.

Meanwhile the Letter of Approvals are issued and the National JI-Guidelines of Lithuania are published.

3.2 Baseline

3.2.1 Findings

The baseline of the Lithuanian JI-project "Rudaiciai Wind Power Park Project" is established in a project specific manner. The BASREC JI Project Guidelines (see section B.1) has been used as a basis for developing the baseline and monitoring methodology. Due to the country specific circumstances the CDM-Methodology ACM0002 is not proper to be applied. In Rudaiciai wind farm project baseline is calculated referring to historic data.

The baseline is based on the facts that

- the power plant of Lietuvos Elektrine is operating on the power grid as the sole marginal plant in Lithuania. Lietuvos elektrine has the biggest variable costs of electricity generation in Lithuania. It covers all power demand which is remaining after all other power producers have supplied their quota power to the grid and

- there is an overcapacity of installed power in Lithuania, so only very few new power plants are built.

Because of that, it can be assumed that Operating Margin and Build Margin emissions factor is more or less identical with the emission factor of the power plant of Lietuvos Elektrine. The determined baseline emission factor for the electricity grid corresponds also to the second NAP regarding new installations.

According to the PDD the sale of ERUs during 2008-12 improves the project IRR by ca. 0.5 percentage points and thus makes the project more attractive for the investors to undertake.

Except above mentioned IRR-value the discussion and selection of the baseline methodology is transparent as all data used are specified and documented. Also the discussion and determination of the chosen baseline is transparent. Different approaches have been presented and plausible reasons for the approach chosen have been given.

In comparison to other support systems in Western Europe it is obvious that the existing Lithuanian feed-in tariff results in an inadequate rate of return and it is unsure whether the current feed-in-tariff is guaranteed for a longer term. No large wind turbine is operating in Lithuania which is not supported by a JI-project or other grants.

Rudaiciai wind farm can result in double counting due to the feeding of generated electricity into the national electricity grid and due to the grid-connected power plants which are covered by the EU Emissions Trading Scheme. Hence we checked during our determination whether the project is preliminary approved by the Lithuanian Government, represented by the Ministry of the Environment in order to be sure that the project is known. The preliminary approval by the Lithuanian government was given (Letter of Endorsement of Rudaičiai wind power-plant JI project, Nr. (10-5)-D8-4653 from 2006-05-31). Therefore it remains at the Lithuanian Government to take care for considerable action reflecting this double counting issue either by linking this project activity to any existing JI reserve within the second NAP or by deleting the respective amount of EUAs.

3.2.2 Issued CARs / CRs

CORRECTIVE ACTION REQUEST #2

The tendering process and the support by feed-in-tariff system should be described.

> Response: The description of tendering process and feed in tariff-system was added in A.4.3.

CORRECTIVE ACTION REQUEST #3

The version number and issuing date of baseline methodology should be mentioned in the PDD. The current version should be applied.

> Response: First version (2003) of BASREC guidelines was used, as only this version was available at the time when the project was prepared.
> Updated sections B1, B3 and D 1.1. were adjusted with the reference to the new version of BASREC handbook.

CORRECTIVE ACTION REQUEST #4

It should be explained, why the used methodology approach is reasonable in comparison to the approach "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" and with the CDM methodology ACM0002 and why in comparison to them the used approach is conservative, too.

> Response: Explanation is added in B.1.

CORRECTIVE ACTION REQUEST #5

The additionality should be demonstrated acc. JI Guidance on criteria for baseline setting and monitoring see http://ji.unfccc.int/Ref/Documents/Baseline_setting_and_monitoring.pdf

To demonstrate financial additionality the financial analysis has to be provided to the audit team. Within the financial analyses it should be included a sensitivity analysis regarding higher or lower production (e.g. ± 12%) and higher or lower prices for carbon credits.

> Response: B.2. is updated according to Tool for the demonstration and assessment of additionality (without track changes).
> In the provided excel file there is financial analysis includes sensitivity analysis as requested.
> The energy evaluation of EMD International, Corrective Action Request carried out by Per Nielsen, was delivered to the auditteam.

CORRECTIVE ACTION REQUEST #6

A detailed list of those projects should be presented and it should be demonstrated that all of them suffer from the same barriers and need therefore support by external grants or the JI-program.

> Response: Only two wind power parks of the commercial scale are developed at the moment. Both apply for JI support. It is mentioned in B.2.

3.2.3 Conclusion

The additional explanations regarding baseline methodology are sufficiently. The baseline is established in a project specific manner and refers to the characteristics of the Lithuanian power plants. The baseline does take into account the major national and/or sectoral policies, macro-economic trends and political developments. The determined baseline emission factor for the electricity grid is consistent with the NAP. Relevant key factors are described and their impact on the baseline and the project risk is evaluated. The baseline determination is compatible with available data and can be considered as conservative.

According to the evaluation of EMD International the most probable energy production is about 81,5 GWh. The computed IRR of investment for this scenario is about 11% without ERUs. The revenue of ERUs lifts the IRR about 0.5 % which makes the project more attractive for the

investors to undertake. However the mentioned benchmark for investments of gas-fired cogeneration plants is not reached 15 %.
The IRR-Benchmark on investment costs of 15 % is demonstrated with typical cogeneration plants, which are supported by the EU.

Additionally to the demonstrated Step 2 "investment analysis" it is shown in Step 3 "Barrier analysis" that the investment barriers are considerable, which are well known for Lithuania.

Taking to account the above estimation of generation and the respective financial attractiveness the implementation of the wind park project can be considered as additional.

After having submitted the proof for IRR-benchmark the project fulfils all prescribed requirements completely.

3.3 Monitoring Plan

3.3.1 Findings

No separate monitoring plan exists but a detailed description of monitoring activities in section D of the PDD. During the initial verification audit it should be checked that the PDD-description has been used as basis for a separate, detailed monitoring plan.

Section D.2. of the data lists only the data to be monitored during the operational phase of the wind farm (EG_y – amount of electric power supplied to the grid) but not the data needed to calculate the ex-ante emission margin.

The presented monitoring methodology does reflect current good practice and is supported by the monitored and recorded data. The monitoring methodology is in accordance with the chosen methodology. The monitoring provisions are in line with the project boundaries.

The project proponents decided to use the net energy production (energy which is fed into the grid minus energy which is taken from the grid in times where the wind farm does not produce enough energy to cover its auxiliary demand). Therefore no project emissions have to be taken into account for the externally provided auxiliary energy. No leakage exists. The baseline emission factor will not be changed during the crediting period. The only remaining variable to be monitored is therefore EG_y. This parameter will be monitored and measured in a re-traceable and plausible way. The monitoring provisions are in line with the project boundaries. In case of meter malfunctions the internal metering system of the wind turbines (SCADA-systems) can serve as back-up.

3.3.2 Issued CARs / CRs

CORRECTIVE ACTION REQUEST #7a

The mentioned amount of electric power has to be considered as baseline emissions. Hence this parameter should be cancelled n the section D.1.1.1 of the PDD.

Response: Table D.1.1. is adjusted accordingly.

CORRECTIVE ACTION REQUEST #7b

All parameters which are necessary to determine baseline emissions should be mentioned and explained, independently whether the parameter is a default value or has to be calculated once in advance or has to be monitored during the whole crediting period.

Response: Data from Annex 3 were put to D.1.1.3 and corrected/added new.
D1.1.3 table was reduced for one factor (annual power production at Rudaiciai wind farm). Corresponding reasoning added to the end of B1.

CORRECTIVE ACTION REQUEST #8

For all parameters to be monitored the list regarding quality assurance and quality control in section D2 should be filled in.

Response: Table D2 is compiled
Table D2 is reduced according to changes to D1.1.3.

CORRECTIVE ACTION REQUEST #9

The determination of the grid factor and the formulas used to estimate it has to be explained in the chapter D.1.1.4, too. In section B.1. only the description and justification of the baseline is expected there. At least in D.1.1.4 should be referred to section B.1. where the data and estimation of grid factor is provided.

Response: Added description of formulae that should be used for baseline monitoring during the project operation. B1 contains the description on how the baseline was set. D.1.1.4 now refers to B1, for explanation of one parameter.

CORRECTIVE ACTION REQUEST #10

The operational and management structure should be described.

Response: Have added description of management structure of Veju spektras and responsibilities for making the monitoring report.

CORRECTIVE ACTION REQUEST #11

Responsibilities for collecting the data, controlling/checking the data, calibrating the counters, and elaborating the monitoring report …..should be described.

Response: Responsibilities Added in D.3.

CORRECTIVE ACTION REQUEST #12

The monitoring plan has to be revised in Annex 3 of the PDD.

Response: Similar table to the one in D1.1.3 is added in Annex 3 - for collecting the monitoring data.
A short description is added to annex 3 on how monitoring will be performed. Maybe there is no need for excel spread sheet, as only two figures will have to be multiplied for calculation of emission reductions.

3.3.3 Conclusion

The monitoring plan focuses on measurable parameter (annual power production). The parameter which are determined in advance and are valid for the whole crediting period are not mentioned separately. This approach is sufficient, as the current JI PDD format does not require indicating each parameter which is used to calculate baseline emissions.
It is clearly mentioned that annual power production means the net energy production (delivered electricity to the grid minus the demanded electricity from the grid).

The description of management structure is sufficiently described. All aspects regarding future responsibilities for registration, monitoring, measurement are already fixed in advance.

The monitoring plan in Annex 3 is not comparable with a monitoring manual for the monitoring personnel. A printout of a pre-prepared excel-spread-sheet to ease recording and reporting is not amended. This could be accepted as only very few figures will have to be multiplied for calculation of emission reductions and because no further requirements exist for Annex 3.

The above discussed issues are considered to be resolved. The project fulfils all the prescribed requirements completely.

3.4 Calculation of GHG Emissions

3.4.1 Findings

The calculation is according to the approved methodology. Uncertainties in the GHG emissions estimates are addressed.

The project's spatial boundaries are clearly described. Regarding emission sources all aspects are covered. Only CO2 emissions have correctly been identified as relevant for the project. No aspects of leakage have been identified; hence a leakage calculation is not requested.

The project will definitely result in fewer GHG emissions than the baseline scenario. Despite of the fact that the used forecast of electricity generation is quite low (72.3 GWh, pessimistic scenario) the calculation of emission reductions itself is correctly computed.

3.4.2 Issued CARs / CRs

CORRECTIVE ACTION REQUEST #13

It should be reasonable explained how and why such high discounts are justified.

> Response: Please find attached EMD evaluation. I have also put reference to it in A4.2.
> Formula, reference and values added to E4.
> Table 4 updated and added reasoning at the end of A.4.2.

See comment above CAR #5.
This issue is considered to be resolved.

CORRECTIVE ACTION REQUEST #14

The figures regarding to CO2 emissions are not completely consistent with the data given in B.1.

> Response: That was an old table there because file has crashed. Have updated both table 11 and table 20 in annex 2 (former table 25, as I have reduced overall number of tables)

3.4.3 Conclusion

As mentioned before the most probable energy production is about 81.5 GWh according to the evaluation of EMD International. Hence the amount of calculated emission reduction units seems to be very conservative.

The above discussed issues are considered to be resolved. The project fulfils all the prescribed requirements completely.

3.5 Environmental Impacts

3.5.1 Findings

The most relevant environmental impacts are sufficiently described in the PDD. An EIA was not necessary, which is confirmed by a letter from Ministry of Environment. The concerned municipality has also decided that an EIA is not necessary. In accordance with local and national laws the siting of the wind turbines has been chosen in such a way that no residents will be disturbed.

It is not expected that there will be any adverse environmental effects. There are no transboundary environmental impacts by the wind farm project.

3.5.2 Issued CARs / CRs

No such requests have been issued.

3.5.3 Conclusion

The project fulfils all prescribed requirements.

3.6 Local stakeholder process

3.6.1 Findings

Beginning of preparation of project's detailed plan is announced in newspaper „Pajūrio naujienos". On March 23, 2004 the last stage of public consideration of the project detailed plan was announced in the newspaper „Pajurio naujienos". On April 23, 2004 detailed plan project was

considered in Kretinga municipality. The respective minutes and public consideration report were published. Stakeholders have not expressed any objections.

There have been no comments, which would have required any further action.

Provided information deems that the consultation process was carried out according the national regulations. The conducted stakeholder process is sufficiently described.

3.6.2 Issued CARs/CRs

No such requests have been issued.

3.6.3 Conclusion

The project fulfils all the prescribed requirements.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD started to publish the PDD and the baseline study on its homepage and on the UNFCCC JI project site on January 11, 2007 and was open for comments until February 9, 2007.

No comments have been received.

Industrie Service

5 DETERMINATION OPINION

TÜV SÜD has performed a determination of the "Rudaiciai Wind Power Park Project", Lithuania.

The determination was performed on the basis of UNFCCC criteria as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project itself meets all relevant UNFCCC requirements for JI.

By building a wind farm with state of the art wind turbines the project results in reductions of CO_2 emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

The eligibility criterion regarding National JI-Guidelines of the host country is meanwhile fulfilled. The Letter of Approvals of host and investor country are issued.

The determination is based on the experience of our own onsite visit and on the information made available to us and the engagement conditions detailed in this report. TÜV SÜD can not guarantee the accuracy or correctness of this information. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the determination opinion."

Munich, 2008-05-05

Werner Betzenbichler

Head of certification body "climate and energy"

Munich, 2008-05-05

Klaus Nürnberger

Project Manager

Annex 1

JI- Determination Protocol

Project Title: Rudaiciai Wind Power Park Project
Date of Completion: 09.11.2007
Number of Pages: 26

Industrie Service

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of the project				
A.1. Title of the project activity:				
A.1.1. Does the used project title clearly enable to identify the unique JI activity?		The project title clearly enables the identification of the JI activity. At this moment there are not any other wind farms near Rudaiciai or Kretinga.	☑	☑
A.1.2. Are there an indication of a revision number and the date of the revision?		The revision number and the date of the issuance of this revision are correctly indicated.	☑	☑
A.1.3. Is this in consistency with the time line of the project's history?		The given dates are in consistency with the time line of the project development.	☑	☑
A.2. Description of the project activity:				
A.2.1. Is the description delivering a transparent overview of the project activities?		The description of the project activity delivers a transparent overview of the project activities.	☑	☑
A.2.2. What proofs are available evidencing that information provided in the description is in compliance with actual situation or planning?		A meeting with the representatives of the relevant Municipality Kretinga proved that the project is known. Licences for construction described wind turbines. The wind expert opinion by Enercon and the production results of a near-by wind farm was presented. 9 Turbines of 15 are already erected.	☑	☑
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?		The information provided by the PDD corresponds with the information surveyed by the validation team. Only the estimated production of electricity in the PDD is much less than the wind expert opinion indicates. See below section E.4.		☑
A.2.4. Is all information provided in consistency with details provided by further chapters of the PDD?		Detail information as well as summaries is consistent throughout the PDD.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A.3. Project participants:				
A.3.1. Is the form required for the indication of project participants correctly applied?		Yes, all project participants and clearly indicated.	☑	☑
A.3.2. Is the participation of all listed entities or Parties confirmed by each of them?		All responsible persons of all parties involved have been contacted directly or by email. Corrective Action Request: The participation of Ekvoatas should be confirmed.	**CAR1**	☑
A.3.3. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?		Name and function of project participants is consistently used throughout the PDD, including annex 1	☑	☑
A.4. Technical description of the project activity:				
A.4.1. *Location of the project activity:*				
A.4.1.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?		The location of project activity is described briefly. In the PDD there is one overview map and one detail map which should indicate the position of the wind farm and even of the individual turbines. Clarification Request: The red circle in the overview map (page 3) seems to be not exactly there where the project is located; this should be clarified.	**CR1**	☑
A.4.1.2. How is it ensured, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?		The ground needed for the turbines is leased by the wind park owner. The licenses for construction are already issued. Hence there are no indications of potential problems regarding implementation of the project at foreseen site.	☑	☑
A.4.2. *Project activity type(s) and category(ies):*				

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
To which category(ies) is the project activity belonging to? Is it correctly identified and indicated?		The project belongs to type I (renewable energy projects). For JI project there is no requirement to indicate explicitly the category of the project type.	☑	☑
A.4.3. *Technology(ies) to be employed, or measures, operations or actions to be implemented by the project activity:*				

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.3.1.	Does the project design engineering reflect current good practices?		The project reflects a standard wind park as it can be found in many European countries where appropriate support mechanisms guarantee the profitability of such projects. In Lithuania, hitherto those wind farms do not exist.	☑	☑
A.4.3.2.	Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?		The detailed data of the wind turbine, combined with the wind generation estimate, allow a reasonably solid estimation of the electricity production and thus the GHG reduction.	☑	☑
A.4.3.3.	Is the technology implemented by the project activity environmentally safe?		The only conceivable environmental influence of wind turbines is on noise and may be on birds. The environmental impacts are described plausible in the PDD. The Lithuanian Ministry of Environment declared the non-necessity of EIA.	☑	☑
A.4.3.4.	Is all information provided in compliance with actual situation or planning as available by the project participants?		The PDD reflects the actual situation correctly.	☑	☑
A.4.3.5.	Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?		The planned wind turbines are modern state-of-the-art turbines. Turbines. In Lithuania such there are up to now very few wind turbines erected which are all quite new and therefore comparable to the planned turbines.	☑	☑
A.4.3.6.	Is the project technology likely to be substituted by other or more efficient technologies within the project period?		It is not expected that today's highly efficient wind turbines will be substituted by better technologies within the project period.	☑	☑
A.4.3.7.	Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?		As the first twelve years the turbine manufacturer will be responsible for support and maintenance. Hence because of the very well experienced supplier, there is only a very project specific training on-site necessary.	☑	☑
A.4.3.8.	Does the project make provisions for meeting training and maintenance needs?		The provisions regarding training and maintenance are contracted with the manufacturer of the wind turbines.	☑	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.3.9.	Is a schedule available on the implementation of the project and are there any risks for delays?		An implementation schedule does exist. The implementation is already far advanced. Nevertheless the schedule is quite tight. Especially bad weather conditions can be a risk for delay.	☑	☑
A.4.4.	*Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed project activity, including why the emission reductions would not occur in the absence of the proposed project activity, taking into account national and/or sectoral policies and circumstances:*				
A.4.4.1.	Is the form required for the indication of projected emission reductions correctly applied?		The form is correctly filled out.	☑	☑
A.4.4.2.	Are the figures provided consistent with other data presented by the PDD?		The figures in the form correspond to the other data presented in the PDD	☑	☑
A.4.5.	*Public funding of the project activity*				
A.4.5.1.	Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?		The information on public funding especially regarding tendering and feed-in-tariff system for renewable energies is not described. Corrective Action Request: The tendering process and the support by feed-in-tariff system should be described.	**CAR2**	☑
A.4.5.2.	Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?		Information provided is consistent with the details given in remaining chapters of the PDD.	☑	☑
A.5.	**Project approval by the Parties involved:**				
Open issues related to the approval of the Parties involved are covered in a separate “completeness checklist”					

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B. Baseline				
B.1. Description and justification of the baseline chosen				
B.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?		The Baseline methodology is indicated as BASREC JI Project Guidelines (see section B.1). The version number is mentioned. Corrective Action Request: The version number and issuing date of baseline methodology should be mentioned in the PDD. The current version should be applied.	**CAR3**	☑
B.1.2. Is the applied version the most recent one or still applicable?		The used baseline methodology does not cover all requirements of BASREC JI Handbook and CDM methodology ACM0002. Corrective Action Request: It should be explained, why the used methodology approach is reasonable in comparison to the approach “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” and with the CDM methodology ACM0002 and why in comparison to them the used approach is conservative, too.	CAR4	☑
B.1.3. Is the applied methodology considered being the most appropriate one?		See above B.1.3.	☑	☑
B.1.4. Does baseline methodology apply to electricity capacity additions from wind sources?		Yes, the used methodology is in principle applicable for additional capacity from wind power plants. See above B.1.3	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.1.5. Can the geographic and system boundaries for the relevant electricity grid clearly be identified and is the information on the characteristics of the grid available		Yes, the geographic and system boundaries for the Lithuanian electricity grid can clearly be identified. Relevant information on the characteristics of the grid are available but not to this extent as required by CDM-methodology ACM0002. See above B.1.3	☑	☑
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 project activity				
Description of how the baseline scenario is identified and description of the identified baseline scenario				
B.2.1. Have all technically feasible baseline scenario alternatives (at least all scenarios listed under step 1a in the additionalty tool) to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?		In the published PDD version, the additionality is not demonstrated according to the "Tool for the demonstration an assessment of additionality". If other demonstration tools are used, the appropriateness has to be explained and justified. Corrective Action Request: The additionality should be demonstrated acc. JI Guidance on criteria for baseline setting and monitoring see http://ji.unfccc.int/Ref/Documents/Baseline_setting_and_monitoring.pdf	**CAR5**	☑
B.2.2. Does the project identify correctly and excludes those options not in line with regulatory or legal requirements?		See above B.2.1		☑
B.2.3. Have applicable regulatory or legal requirements been identified?		See above B.2.1		☑
B.2.4. In case of applying step 1 of the additionality tool: is the operating margin appropriately calculated?		See above B.2.1		☑
B.2.5. In case of applying step 2 of the additionality tool: Is the analysis method appropriately identified (step 2a)?		See above B.2.1		☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.2.6. In case of Option I (simple cost analysis): Is demonstrated that the activity produces no economic benefits other than JI income?		See above B.2.1		☑
B.2.7. In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified?		See above B.2.1		☑
B.2.8. In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified?		See above B.2.1		☑
B.2.9. In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?		See above B.2.1		☑
B.2.10. In case of Option II or Option III: Is the analysis presented in a transparent manner providing public available proofs for data?		See above B.2.1		☑
B.2.11. In case of applying step 3 (barrier analysis): Is a complete list of barriers developed that prevent alternatives to occur?		See above B.2.1		☑
B.2.12. In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?		See above B.2.1		☑
B.2.13. In case of applying step 3 (barrier analysis): Is it transparently shown that at least one of the alternatives is not prevented by the identified barriers?		See above B.2.1		☑
B.2.14. Have other activities in the host country / re-		Other wind farm projects are being planned.		

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
gion similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?		Corrective Action Request: A detailed list of those projects should be presented and it should be demonstrated that all of them suffer from the same barriers and need therefore support by external grants or the JI-program.	CAR6	☑
B.2.15. If similar activities are occurring: Is it demonstrated that in spite these similarities the project activity would not be implemented without the JI (step 4b)?		As mentioned above, it should be made clear that none of the similar activities is expected to succeed without JI-support.		☑
B.2.16. Is it appropriately explained how the approval of the project activity will alleviate the economic and financial hurdles or other identified barriers (step 5)?		See above B.2.1.		☑
B.3. Description of how the definition of the project boundary is applied to the project:				
B.3.1. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by the PDD?		Spatial and technological boundaries comply with the statements in the PDD.	☑	☑
Description of the sources and gases included in the project boundary (Fill in the required amount of sub checklists for sources and gases as given by the methodology applied and comment at least every line answered with “No”)				
B.3.2. Source: emissions from electricity generation in fossil fuel fired power plants of any connected electricity system Gas(es): CO2 Type: baseline emissions		Boundary checklist / Yes / No Source and gas(es) discussed by the PDD? Yes Inclusion / exclusion justified? Yes Explanation / Justification sufficient? Yes Consistency with monitoring plan? Yes	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.4. Further baseline information, including the date of baseline setting and the name(s) of the person(s)/entity(ies) setting the baseline Emissions reductions				
B.4.1. Is there any indication of a date when determining the baseline?		The date of the baseline setting is indicated (July, 2006)	☑	☑
B.4.2. Is this in consistency with the time line of the PDD history?		The date of the baseline study corresponds with the PDD date.	☑	☑
B.4.3. Is information of the person(s) / entity(ies) responsible for the application of the baseline methodology provided in consistency with the actual situation?		Ekostragija in Vilnius (Mr. Kuodys and Ms. Budryte) is named as responsible for the baseline study	☑	☑
B.4.4. Is information provided whether this person / entity is also a project participant?		This information is given; Ekostrategija is no project participant.	☑	☑
C. Duration of the project activity / crediting period				
C.1. Are the project's starting date and operational lifetime clearly defined and reasonable?		The project's starting date and the operational lifetime are correctly indicated and reflect the envisioned schedule for the implementation.	☑	☑
C.2. Is the assumed crediting time clearly defined and reasonable (crediting period between 2008 and 2012)?		The crediting period and its type are clearly defined (from Jan. 1, 2008 to Dec. 31, 2012).	☑	☑
D. Monitoring plan				
D.1. Description of monitoring plan chosen:				
Is the applied methodology considered being the most appropriate one?		The used methodology is not based on any CDM methodology. It is based on BASREC JI Handbook. The main requirements of the Kyoto-Protocol, Annex B of Chapter 6 are mentioned in the PDD.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		The requirements are in principle fulfilled. see above B.2.1.		
D.1.1. *Option 1 Monitoring of the emissions in the project scenario and the baseline scenario:*				
In the following "data checklists" are shown for all data which are fixed at validation time, and "monitoring checklists" for all data which have to be monitored during the life-time of the project.				
D.1.1.1 Data to be collected in order to monitor emissions from the project and how these data will be archived				
Is the list of parameters presented by chapter D.1.1.1 considered to be complete with regard to the requirements of the applied methodology?		No project emissions are expected. Hence there is no need to monitor project emissions. Corrective Action Request: The mentioned amount of electric power has to be considered as baseline emissions. Hence this parameter should be cancelled n the section D.1.1.1 of the PDD.	**CAR7a**	☑
D.1.1.2 Description of formula used to estimate emissions from the project				
Are formulae required for the estimation of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?		No project emissions are expected. Hence there is no need to estimate project emissions.	☑	☑
D.1.1.3 Data to be collected in order to determine the baseline emissions within the project boundary how these data will archived				
Fill in the required amount of sub checklists for fixed data parameter and comment any line answered with "No"				
ID 1: Amount of electric power produced by the wind park		The project proponents decided to use the net energy production (energy which is fed into the grid minus energy which is taken from the grid in times where the wind farm does not produce enough energy to cover its auxiliary demand). Therefore no project emissions have to be taken into account for the externally provided auxiliary energy. The baseline emission factor will not be changed during the crediting period. Data Checklist | Yes / No		

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes QA/QC procedures described? Yes QA/QC procedures appropriate? Yes		
Is the list of parameters presented by chapter D.1.1.3 considered to be complete with regard to the requirements of the applied methodology?		No the list of parameter is not complete. Corrective Action Request: All parameters which are necessary to determine baseline emissions should be mentioned and explained, independently whether the parameter is a default value or has to be calculated once in advance or has to be monitored during the whole crediting period. Corrective Action Request: For all parameters to be monitored the list regarding quality assurance and quality control in section D2 should be filled in.	CAR7b CAR8	☑
D.1.1.4 Description of formula used to estimate baseline emissions				
Is it explained how the procedures provided by the methodology are applied by the proposed project activity?		In principle yes. Corrective Action Request: The determination of the grid factor and the formulas used to estimate it has to be explained in the chapter D.1.1.4, too. In section B.1. only the description and justification of the baseline is expected there.	**CAR9**	☑
D.2. Quality control (QC) and quality assurance (QA) procedures undertaken for data monitored:				
This aspect is covered for the relevant data in section D.1.1.1 and D.1.1.3				

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
D.3. Please describe the operational and management structure that the project operator will apply in implementing the monitoring plan:				
D.3.1. Is the operational and management structure clearly described and in compliance with the envisoned situation?		The operational and management structure is not yet described. Corrective Action Request: The operational and management structure should be described.	**CAR10**	☑
D.3.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?		Corrective Action Request: Responsibilities for collecting the data, controlling/checking the data, calibrating the counters, and elaborating the monitoring report …..should be described.	**CAR11**	☑
D.3.3. Does the monitoring plan provide current good monitoring practice?		See above section D.1.1.3		
D.3.4. Does annex 3 provide useful information enabling a better understanding of the envisoned monitoring provisions?		The monitoring plan itself and the in advance prepared worksheets to fill in the measured/determined values of the monitored parameter for easy computing the emissions and emission reductions is not yet enclosed to the PDD. Corrective Action Request: The monitoring plan has to be revised in Annex 3 of the PDD.	**CAR12**	☑
D.4. Name of person(s)/entity(ies) establishing the monitoring plan:				
D.4.1. D.4.1 Is information of the person(s) / entity(ies) responsible for the monitoring methodology provided in consistency with the actual situation?		The information is consistent with the actual situation.	☑	☑
D.4.2. D.4.2 Is information provided whether this person / entity is also a project participant?		The mentioned persons who are responsible for monitoring plan are not foreseen as project participant.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
E. Estimation of greenhouse gas emission reductions				
E.1. Estimated project emissions and formulae used in the estimation				
E.1.1. Are formulae required for the estimation of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?		There are no project emissions in this wind power project	☑	☑
E.2. Estimated leakage and formulae used in the estimation, if applicable:				
E.2.1. Are formulae required for the estimation of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?		There are no leakage emissions in this wind power project	☑	☑
E.3. The sum of E.1. and E.2.:				
E.3.1. Is the data provided under this section in consistency with data as presented by other chapters of the PDD?		The section is correctly filled out; the data are consistent with other data in the PDD and associated documents.	☑	☑
E.4. Estimated baseline emissions and formulae used in the estimation:				
Ex-ante calculation of emission reductions				
E.4.1. Is the projection based on the same procedures as used for later monitoring?		The projection is done by the same algorithms as used for later monitoring.	☑	☑
E.4.2. Is the data provided under this section in consistency with data as presented by other chapters of the PDD?		The estimated value of the wind farm production is consistenly used throughout the PDD but not consistently with the predicted energy production of the Long Term Correlation Study by Enercon. The projection is very conservative. Corrective Action Request:	**CAR13**	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		It should be reasonable explained how and why such high discounts are justified.		
E.4.3. Are formulae required for the estimation of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?		See above D.1.1.4.1		☑
E.5. Difference between E.4. and E.3 representing the emission reductions of the project:				
E.5.1. Are formulae required for the determination of emission reductions correctly presented?		The formulae are correctly presented.		
E.6. Table providing values obtained when applying formulae above:				
E.6.1. Will the project result in fewer GHG emissions than the baseline scenario?		The project activity will result in emission reductions	☑	☑
E.6.2. Is the form/table required for the indication of projected emission reductions correctly applied?		The form is correctly applied	☑	☑
E.6.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?		The projection of emission reductions corresponds with the envisioned time schedule and the indicated crediting period.	☑	☑
E.6.4. Is the data provided under this section in consistency with data as presented by other chapters of the PDD?		The data are consistent with other data in the PDD and associated documents.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
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:				
F.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	9	The most relevant environmental impacts are sufficiently described in the PDD. An EIA was not necessary, which is confirmed by a letter from Ministry of Environment.	☑	☑
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	9	The concerned municipality has decided that an EIA is not necessary.	☑	☑
F.1.3. Will the project create any adverse environmental effects?		It is not expected that there will be any adverse environmental effects.	☑	☑
F.1.4. Are transboundary environmental impacts considered in the analysis?		There are no transboundary environmental impacts by the wind farm project.	☑	☑
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:				
F.2.1. Have identified environmental impacts been addressed in the project design?		No environmental impacts have to be considered as significant. In accordance with local and national laws the siting of the wind turbines has been chosen in such a way that no residents will be disturbed.	☑	☑
F.2.2. Does the project comply with environmental legislation in the host country?		It can be assumed that the project complies with the environmental legislation in the host country.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
G. Stakeholders' comments				
G.1. Information on stakeholders' comments on the project, as appropriate:				
G.1.1. Have relevant stakeholders been consulted?		Yes.	☑	☑
G.1.2. Have appropriate media been used to invite comments by local stakeholders?		Beginning of preparation of project's detailed plan is announced in newspaper „Pajūrio naujienos". On March 23, 2004 the last stage of public consideration of the project detailed plan was announced in the newspaper „Pajurio naujienos". On April 23, 2004 detailed plan project was considered in Kretinga municipality. The respective minutes and public consideration report were published.	☑	☑
G.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?		Provided information deems that the consultation process was carried out according the national regulations.	☑	☑
G.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?		The conducted stakeholder process is sufficiently described.	☑	☑
G.1.5. Is a summary of the stakeholder comments received provided?		Minutes and public consideration report were published. Stakeholders have not expressed any objections.	☑	☑
G.1.6. Has due account been taken of any stakeholder comments received?		There was no need to adjust the planning.	☑	☑

H. Annexes 1 - 4				
Annex 1: Contact Information				
1. Is the information provided in consistency with the one given under section A.3?		Yes.	☑	☑
2. Is information on all private participants and directly involved Parties presented?		Yes.	☑	☑
Annex 2: Baseline study				
1. If additional background information on baseline data is provided: Is this information in consistency with data presented by other sections of the PDD?		All information in Annex 2 is almost consistent with the PDD-information. <u>Corrective Action Request:</u> The figures regarding to CO2 emissions are not completely consistent with the data given in B.1.	**CAR14**	☑
2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?		The data provided have been checked against recent NAP. No discrepancies were found. The indicated allocation factor and the offered pollution factor per MWh (0,634 t/MMWh) is a bit higher than the determined grid factor of the baseline case (0,626 t/MWh), which also shows the conservative approach. It is also mentioned in the NAP that the power plants of Lietuvos elektrine has the biggest variable costs of electricity generation.	☑	☑
3. Does the additional information substantiate statements given in other sections of the PDD?		There is no further information given.	☑	☑
Annex 3: Monitoring information				
4. If additional background information on monitoring is provided: Is this information in consistency with data presented by other sections of the PDD?		All information given in Annex 3 is consistent with the PDD information.	☑	☑
5. Is the information provided verifiable? Has sufficient evidence been provided to the validation		See above section D.3.4		☑

team?				
6. Do the additional information / procedures substantiate statements given in other sections of the PDD?		There is additional information given regarding management of monitoring. See above D.3.2.		☑

Industrie Service

Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
CAR1 The participation of Ekvoatas should be confirmed.	A.3.2.	Ekvotas confirmed participation directly by letter and email to the validation team.	This issue is considered to be resolved.
CR1 The red circle in the overview map (page 3) seems to be not exactly there where the project is located; this should be clarified.	A.4.1.1.	In Rudaiciai wind farm, picture is OK. The wrong place was marked in Benaiciai project – it was fixed.	This issue is considered to be resolved.
CAR2 The tendering process and the support by feed-in-tariff system should be described.	A.4.5.1	The description of tendering process and feed in tariff-system was added in A.4.3.	This issue is considered to be resolved.
CAR3 The version number and issuing date of baseline methodology should be mentioned in the PDD. The current version should be applied.	B.1.1.	First version (2003) of BASREC guidelines was used, as only this version was available at the time when the project was prepared. Updated sections B1, B3 and D 1.1. were adjusted with the reference to the new version of BASREC handbook.	This issue is considered to be resolved.
CAR4 It should be explained, why the used methodology approach is reasonable in comparison to the approach “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” and with the CDM methodology ACM0002 and why in comparison to them the used approach is conservative, too.	B.1.2.	Explanation is added in B.1.	The explanation is sufficiently. It is mentioned in the recent NAP that the power plants of Lietuvos elektrine has the biggest variable costs of electricity generation. The determined baseline emission factor for the electricity grid is consistent with the NAP. This issue is considered to be resolved.

CAR5 The additionality should be demonstrated acc. JI Guidance on criteria for baseline setting and monitoring see http://ji.unfccc.int/Ref/Documents/Baseline_setting_and_monitoring.pdf To demonstrate financial additionality the financial analysis has to be provided to the audit team. Within the financial analyses it should be included a sensitivity analysis regarding higher or lower production (e.g. ± 12%) and higher or lower prices for carbon credits.	B.2.1.	B.2. is updated according to Tool for the demonstration and assessment of additionality (without track changes). In the provided excel file there is financial analysis includes sensitivity analysis as requested. The energy evaluation of EMD International, carried out by Per Nielsen, was delivered to the auditteam.	According to the evaluation of EMD International the most probable energy production is about 81,5 GWh The computed IRR of investment for this scenario is about 11% without ERUs. The revenue of ERUs lifts the IRR about 0,5 %. The mentioned benchmark for investments of gas-fired cogeneration plants is 15 %, which is evidenced by IRR for typical cogeneration plants.
CAR6 A detailed list of those projects should be presented and it should be demonstrated that all of them suffer from the same barriers and need therefore support by external grants or the JI-program.	B.2.1.4.	Only two wind power parks of the commercial scale are developed at the moment. Both apply for JI support. It is mentioned in B.2.	Issue is considered to be resolved.
CAR7a The mentioned amount of electric power has to be considered as baseline emissions. Hence this parameter should be cancelled n the section D.1.1.1 of the PDD.		Table D.1.1. is adjusted accordingly.	This issue is considered to be resolved.

CAR7b All parameters which are necessary to determine baseline emissions should be mentioned and explained, independently whether the parameter is a default value or has to be calculated once in advance or has to be monitored during the whole crediting period.	D.1.1.3.	Data from Annex 3 were put to D.1.1.3 and corrected/added new. D1.1.3 table was reduced for one factor (annual power production at Rudaiciai wind farm). Corresponding reasoning added to the end of B1.	As long as the current JI PDD format does not require each parameter which is used to calculate baseline emissions, we can accept the unique parameter "annual power production" Nevertheless it should be clearly mentioned that the net power production is meant there.
CAR8 For all parameters to be monitored the list regarding quality assurance and quality control in section D2 should be filled in.	D.1.1.3.	Table D2 is compiled Table D2 is reduced according to changes to D1.1.3.	See comment above. This issue is considered to be resolved.
CAR9 The determination of the grid factor and the formulas used to estimate it has to be explained in the chapter D.1.1.4, too. In section B.1. only the description and justification of the baseline is expected there. At least in D.1.1.4 should be referred to section B.1. where the data and estimation of grid factor is provided.	D.1.1.4.	Added description of formulae that should be used for baseline monitoring during the project operation. B1 contains the description on how the baseline was set. D.1.1.4 now refers to B1, for explanation of one parameter.	This issue is considered to be resolved.
CAR10 The operational and management structure should be described.	D.3.1.	Have added description of management structure of Veju spektras and responsibilities for making the monitoring report.	The description of management structure is sufficiently described. This issue is considered to be resolved.

CAR11 Responsibilities for collecting the data, controlling/checking the data, calibrating the counters, and elaborating the monitoring report …..should be described.	D.3.2.	Responsibilities Added in D.3.	Sufficiently described This issue is considered to be resolved.
CAR12 The monitoring plan has to be revised in Annex 3 of the PDD.	D.3.4.	Similar table to the one in D1.1.3 is added in Annex 3 - for collecting the monitoring data. Added short description to annex 3 on how monitoring will be performed. Maybe there is no need for excel spread sheet, as only two figures will have to be multiplied for calculation of emission reductions.	The monitoring plan in Annex 3 is not comparable with a monitoring manual for the monitoring personnel. A printout of a pre-prepared excel-spread-sheet to ease recording and reporting is not amended. This could be accepted as only very few figures will have to be multiplied for calculation of emission reductions and because no further requirements exist for Annex 3.
CAR13 It should be reasonable explained how and why such high discounts are justified.	E.4.2	Please find attached EMD evaluation. I have also put reference to it in A4.2 Formula, reference and values added to E4. Table 4 updated and added reasoning at the end of A.4.2.	See comment above CAR5. This issue is considered to be resolved.
CAR14 The figures regarding to CO2 emissions are not completely consistent with the data given in B.1.	H Annex 2	That was an old table there because file has crashed. Have updated both table 11 and table 20 in annex 2 (former table 25, as I have reduced overall number of tables)	This issue is considered to be resolved.

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Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)

Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-

Table 4 Completeness Checklist for Submission for Registration

REQUIREMENT	COMMENT	CONCLUSION (at time of issuing validation report)	CONCLUSION (at time of requesting registration)
1. The host country shall be a Party to the Kyoto Protocol	Lithuania is Annex I party and has ratified the Kyoto Protocol on 03 January 2003	☑	
2. Parties participating in the JI shall designate a national authority for the JI.	Lithuania has officially designated a national authority (DFP) for the JI. Netherlands intends to be the investor country. Netherlands have officially designated a national authority (DFP) for the JI.	☑	
3. Parties participating in the JI shall announce national guidelines for the JI on the JISC-website.	On the JISC-website the National Guidelines of Lithuania and Netherlands available.	☑	
4. The host and investor country's DFP shall issue a confirmation that the project assists in achieving sustainable development.	Letter of Approval is issued.	☑	
5. The project shall have the written approval of voluntary participation from the designated national authorities of each party involved. (LoA)	Letter of Approval is issued.	☑	
6. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	The project is published. The comment period is already closed. No comment has been received.	☑	☑
7. Is the version of methodology applied the most recent one or still valid?	The current BASREC methodology is	☑	☑

REQUIREMENT	COMMENT	CONCLUSION (at time of issuing validation report)	CONCLUSION (at time of requesting registration)
	used.		
8. Is it necessary to repeat a GSP due to changes of the revision of the methodology applied or a change of the methodology itself.	Not applicable for JI projects	☑	☑
9. The project design document shall apply the most recent UNFCCC JI-PDD format or a version still valid at the date of submission for registration.	At this moment the used PDD form is valid.	☑	☑
10. Is the indicated starting date of the crediting period after the estimated date of registration?	Crediting period starts with beginning of 2008.	☑	☑
11. In case of bundled small scale activities: Is a bundling form duly filled and attached to the documents?	No SSC project.	☑	☑

Annex 2

Reference No.	Document or Type of Information
1.	On-site interview at UAB Veju Spektras. (Kretinga) by auditing team of TÜV SÜD **Validation team on-site:** Klaus Nürnberger — TÜV Industrie Service GmbH TÜV SÜD Group Madis Maddison — OÜ Projektkeskus **Interviewed persons:** Monday, 30.10.2006 Alvydas Naujekas, C.E.O., UAB Veju Spektras. Jurate Dociuviene, Business coordinator, UAB Veju Spektras. Vaidotas Kuodys, Project Manager, Ekostrategija Valerijonas Černeckis, Director of Administration, Municipality Kretinga Juozas Mažeika, Deputy Mayor, Municipality Kretinga
2.	Project Design Document “Rudaiciai Wind Power-Plant Project”, Final Draft Oct, 2006.
3.	Project Design Document “Rudaiciai Wind Power-Plant Project”, version PDD 01, Dec, 2006.
4.	Project Design Document “Rudaiciai Wind Power-Plant Project”, version PDD 03, March 2007
5.	Report of Technical part of Feasibility Study, Enercon GmbH Aurich
6.	Kretinga County Council Resolution for approval of land use detail planning for Rudaičiai site, Nr.T2-305 from 26.08.04
7.	Kretinga County Council Resolution for approval of land use detail planning for Kveciu and Kiauleikiu sites, Nr.T2-304 from 26.08.04
8.	Kretinga County Council Resolution for approval of land use detail planning for Kvieciu site, Nr.T2-42 from 23.02.06
9.	Lithuanian Ministry of Environment Klaipeda Department Resolution about environmental impact assessment on planned economical activities, Nr. (8.4.2.)-3-2183 from 2003.10.08

Reference No.	Document or Type of Information
10.	Lithuanian Ministry of Environment Klaipeda Department Resolution about environmental impact assessment on planned economical activities, Nr. (8.4.2.)-3-2184 from 2003.10.08
11.	Lithuanian Ministry of Environment Klaipeda Department Resolution about environmental impact assessment on planned economical activities, Nr. (9.14.2.)-V4-2594 from 2005.07.14
12.	LITHUANIA’S NATIONAL ALLOCATION PLAN FOR GREENHOUSE GAS EMISSION ALLOWANCES FOR THE PERIOD 2008 TO 2012, version 30.06.06, pdf file
13.	Lithuanian Ministry of Environment, Letter of Endorsement of Rudaičiai wind power-plant JI project, Nr. (10-5)-D8-4653 from 2006-05-31
14.	Lithuanian Ministry of Economy, Letter of Endorsement of Rudaičiai wind power-plant JI project, Nr. (27.4-51)-3-2219 from 2006-04-12
15.	Licence for construction nr. 127 from 08.09.2005 issued by Kretinga County Government (for 14 generators)
16.	Licence for construction nr. 120 from 11.07.2005 issued by Kretinga County Government (for 1 generator at Kvieciu site)
17.	Leasing Contract LT025318 Special Conditions, between UAB Veju Spektras and UAB Hansa Lizingas, from 2005-11-17
18.	Leasing Contract LT025302 Special Conditions, between UAB Veju Spektras and UAB Hansa Lizingas, from 2005-11-17
19.	Leasing Contract LT025301 Special Conditions, between UAB Veju Spektras and UAB Hansa Lizingas, from 2005-11-17
20.	Leasing Contract LT024245 Special Conditions, between UAB Veju Spektras and UAB Hansa Lizingas, from 2005-11-17
21.	Wind turbine warranty, operation and maintenance agreement with Enercon (*not copied*)
22.	Land lease agreements with landowners (*not copied*)
23.	Announcements of public consideration in local newspaper Pajurio Naujienos (*not copied*)
24.	Grid Connection Agreement (*not copied*)
25.	Power Purchase Agreement (*not copied*)

Reference No.	Document or Type of Information
26.	Financial calculation tables (Rudaiciai_budget_20years.xls), 28. Nov. 2006
27.	Long term correlation from Enercon, (wind expert opinion), Francisco José Hernández Fillols, 03.02.2005
28.	IRR Benchmark cogeneration plants, kogeneracijos_IRR_skaiciavimas1.xls, 20. Feb. 2007
29.	IRR for cogeneration plant Panevezys, Panevezys_CHP_cash-flow1.xls, 09. Feb. 2007