



Industrie Service

# Determination Report

Estonian SSC-JI-Project  
“Virtsu III Wind Power JI Project”

Determination of  
the  
“Virtsu III Wind Power JI-Project”,  
Estonia

**Report No. 907 564**

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Industrie Service

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<b>Client:</b>		LHCarbon OÜ c/o Royal Danish Embassy Wismari 5 15047 Tallinn Estonia		
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<b>Number of pages</b>		15 (excluding cover page and annexes)		
<p><b>Summary:</b></p> <p>The Certification Body “Climate and Energy” of TÜV SÜD Industrie Service GmbH has been ordered by the Estonian company LHCarbon OÜ in Tallinn, Estonia, to determine the above mentioned small scale project.</p> <p>The determination of this SSC 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.</p> <p>The need for corrective action request (CAR) and clarification requests (CR) is described in the report and the attached determination protocol.</p> <p>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.</p> <p>Additionally the assessment team reviewed the estimation of the projected emission reductions.</p> <p>We can confirm that the indicated amount of 90 935 tons CO<sub>2</sub> (ERUs) during the intended crediting period from January 1<sup>st</sup>, 2008 – December 31<sup>st</sup>, 2012 represents a conservative estimation using the assumptions given by the project documents.</p>				
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## **Abbreviations**

<b>BM</b>	Build Margin
<b>CAR</b>	Corrective action request
<b>CR</b>	Clarification request
<b>DFP</b>	Designated Focal Point
<b>DP</b>	Determination Protocol
<b>EIA</b>	Environmental Impact Assessment
<b>ER</b>	Emission reduction
<b>ERU</b>	Emission Reduction Unit
<b>GHG</b>	Greenhouse gas(es)
<b>GSP</b>	Global Stakeholder consultation Process
<b>JI</b>	Joint Implementation
<b>JISC</b>	JI Supervisory Committee
<b>KP</b>	Kyoto Protocol
<b>KPC</b>	Kommunalkredit Public Consulting GmbH
<b>MP</b>	Monitoring Plan
<b>MS</b>	Management System
<b>OM</b>	Operating Margin
<b>PDD</b>	Project Design Document
<b>SCADA</b>	Supervisory Control And Data Acquisition
<b>SEI</b>	Stockholm Environment Institute, Tallinn Centre
<b>TÜV SÜD</b>	TÜV SÜD Industrie Service GmbH
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change

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## **1 INTRODUCTION**

### **1.1 Objective**

The Estonian company LHCarbon OÜ in Tallinn, Estonia, has commissioned TÜV SÜD Industrie Service (in short: TÜV SÜD) to make a determination of the “Virtsu III Wind Power JI project” with regard to the relevant requirements for SSC 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 LHCarbon OÜ. 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 at the west coast of Estonia, close to the village Hanila. The Virtsu III wind farm will have a capacity of 6,9 MW (3 Enercon E-70 turbines à 2,3 MW) and qualifies as a SSC-JI-project. It will feed into the Estonian national grid a total estimated supply of 16 510 MWh per year, resulting in a projected load factor of 27 percent. The electricity generation by the wind turbines will replace energy which is to its largest part produced in the oil shale plants in Narva, East-Estonia.

Virtsu III wind farm will be commissioned end of 2007. The generated ERUs are supplied by OÜ Roheline Ring, a private wind power development company, located in Tallinn, Estonia. OÜ Roheline Ring operates already two other wind farms in Estonia. The project documentation has been developed by the project proponent, LHCarbon OÜ, located in Tallinn, Estonia, with additional support by other institutions.

## **2 METHODOLOGY**

In order to ensure transparency, a determination protocol was customised for the SSC 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 SSC 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.

<b>Determination Protocol Table 1: Mandatory Requirements</b>			
<b>Requirement</b>	<b>Reference</b>	<b>Conclusion</b>	<b>Cross reference</b>
<i>The requirements the project must meet.</i>	<i>Gives reference to the legislation or agreement where the requirement is found.</i>	<i>This is either acceptable based on evidence provided (OK), or a <b>Corrective Action Request (CAR)</b> 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.</i>	<i>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.</i>

<b>Determination Protocol Table 2: Requirement checklist</b>				
<b>Checklist Question</b>	<b>Reference</b>	<b>Means of verification (MoV)</b>	<b>Comment</b>	<b>Draft and/or Final Conclusion</b>
<i>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.</i>	<i>Gives reference to documents where the answer to the checklist question or item is found.</i>	<i>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.</i>	<i>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.</i>	<i>This is either acceptable based on evidence provided (OK), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question (See below). <b>Clarification</b> or <b>Additional Information</b> is used when the independent entity has identified a need for further clarification or more information.</i>

<b>Determination Protocol Table 3: Resolution of Corrective Action and Clarification Requests</b>			
<b>Draft report clarifications and corrective action and additional Information requests</b>	<b>Ref. to checklist question in table 2</b>	<b>Summary of project owner response</b>	<b>Determination conclusion</b>
<i>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.</i>	<i>Reference to the checklist question number in Table 2 where the Corrective Action Request or Clarification or Additional Information Request is explained.</i>	<i>The responses given by the Client or other project participants during the communications with the independent entity should be summarised in this section.</i>	<i>This section should summarise the independent entity’s responses and final conclusions. The conclusions should also be included in Table 2, under “Final Conclusion”.</i>

**Figure 1 Determination protocol tables**



## **2.1 Review of Documents**

A first PDD (v.3) and additional background documents related to the project design and baseline were submitted to TÜV SÜD by LHCarbon on October 25, 2006. Those documents were thoroughly reviewed. Comments were sent back to LHCarbon. As a result of the on-site visit (see section 2.2) and the desk review comments a new PDD-version (v.4) was submitted to TÜV SÜD November 7, 2006. It served as the basis for GSP. Review of additional documents led to more changes in the PDD, resulting in PDD v.5 (issued December 19, 2006). This version is the basis of this determination report.

## **2.2 Follow-up Interviews**

From October 30, 2006 to October 31, 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 LHCarbon OÜ, the wind farm owner OÜ Roheline Ring, the Estonian Ministry for the Environment, the consultant SEI and the Austrian KPC 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**

<b>Interviewed organization</b>	<b>Interview topics</b>
LHCarbon OÜ	Project design, baseline, monitoring plan and procedures, environmental impacts, stakeholder comments, additionality, business plan
OÜ Roheline Ring	Project design, monitoring plan, stakeholder comments, monitoring procedures, measurement equipment, documentation, archiving of data
Estonian Ministry of the Environment	Approval of the project, stakeholder comments, national and sectoral policy; approval procedure
SEI	baseline, environmental impacts, stakeholder comments, additionality



## **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.4. A validation protocol was sent to the LHCarbon with one CAR and four CRs. Two requests were resolved by changes in the PDD (v.5), two requests were resolved by additional information and documentation. One CR has been correctly answered, but the underlying problem (risk of schedule overrun) does still exist.

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 LHCarbon OÜ 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 planned wind turbines are of modern, state-of-the-art systems and amongst the few turbines in Estonia with a capacity of more than 2 MW. The project reflects a professional standard small scale wind park as it can be found in many European countries (where – in contrast to Estonia - appropriate support mechanisms guarantee the profitability of such projects). In Estonia, those wind farms are still very rare. 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 quite tight and there are several risks for delay:

- At the time of finalizing this report the delivery contract with the turbine manufacturer is not yet signed. Delaying this decision could lead to re-negotiations and delivery delays.
- Even the existing (unsigned) contract includes the option to shift the delivery data by up to 4 months. This could delay the delivery up to April 08 and the commissioning even further.

In the first two 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. Thereafter there will be a gradual phase-over between the turbine manufacturer and the wind farm operator. This includes training on-site and at the manufacturer's plant.

Estonia has appointed a national focal point to UNFCCC and has ratified the Kyoto Protocol. Also a DFP is officially nominated. The project is preliminary approved by the Estonian government, represented by the Ministry of the Environment. The project ERUs are included in the second reserve of the Estonian NAP (2008 – 2012).

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

### **3.1.2 Issued CARs / CRs**

#### Clarification Request 1 (CR #1):

The project owner has to deliver an updated schedule and additional information to prove that the implementation schedule is realistic.

#### Response:

Verbal information by the project owner was received December 21, 2006: There is no additional input to update the schedule. The contract with the turbine manufacturer has not been signed yet.

### **3.1.3 Conclusion**

The SSC project fulfils the prescribed requirements completely. Formally CR #1 has been covered. There is no aspect disqualifying the project for registration. However, there is considerable risk that the anticipated schedule cannot be maintained. As none of the important decisions has been taken in the last 2 months the risk for the project has been even increased since the on-site audit.

## **3.2 Baseline**

### **3.2.1 Findings**

The baseline of the Estonian SSC JI-project “Virtsu III Wind Power JI project” is established in a project specific manner. ACM 0002, version 06, has been used as baseline and monitoring methodology. An alternative option would have been the simplified baseline and monitoring methodology I.D for SSC-projects (“grid connected renewable energy generation”. This is a simplified subset of ACM 0002 and insofar the audit team accepts the stricter and therefore more conservative ACM 0002 methodology.

The baseline is based on the assumption that the Narva power plants are upgraded and partially closed (refurbishing of 200 MW units at Eesti and Balti power stations from pulverized bed to circulating fluidized bed combustion technology by 2005/2006, and closing down of units 1 - 8 at Balti power station). These upgrades are contained in the National Fuel and Energy Development Plan. The baseline is a plausible assumption and appropriate.

The (implementation of the) envisaged wind park project is additional. Detailed financial modelling and sensitivity analysis shows that the existing Estonian feed-in tariff results in an inadequate rate of return. No large wind turbine exists in Estonia which is not supported by a JI-project or other grants.

According to the PDD the sale of ERUs during 2008-12 improves the project IRR by ca. 2 percentage points, turns the net present value of the investment from negative to positive and thus makes the project more attractive for the investors to undertake. However, analysis of the finan-

cial data by the assessment team could not confirm the figure of a 2% IRR-increase by ERU-income.

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.

The baseline is established in a project specific manner and refers to the characteristics of the Estonian power plants. The baseline does take into account the major national and/or sectoral policies, macro-economic trends and political developments. 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.

### **3.2.2 Issued CARs / CRs**

#### Clarification Request 2 (CR #2):

Additional information has to be delivered to prove the IRR effect of about 2%.

#### Response:

A new PDD version (v.5) was delivered by e-mail December 14, 2006, taking account of the CR. The statement in version 4 of the PDD was erroneous. The PDD was changed. It states now that the project IRR is improved by ca. 1 percentage point, turning the net present value of the investment from negative to positive.

### **3.2.3 Conclusion**

One additional IRR percent means an increase of 17% and is insofar still a considerable improvement of an otherwise unattractive project. This issue is considered to be resolved.

The SSC 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 ( $EG_y$  – net electricity 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 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) serves as back-up.

### **3.3.2 Issued CARs / CRs**

#### Corrective Action Request No. 2 (CAR #2):

Add ex ante required data to PDD chapter D.2

#### Response:

The final version of the PDD (v.5) has been changed accordingly. All required parameters have been added to PDD chapter D.2.

### **3.3.3 Conclusion**

The SSC project fulfils all the prescribed requirements completely.

## **3.4 Calculation of GHG Emissions**

### **3.4.1 Findings**

The Baseline study (annex 2 of the PDD) describes that the simple OM approach has been used to calculate the Operating Margin (low cost / must run resources less than 50% of total generation). The OM is calculated ex-ante. The Build Margin is also calculated ex-ante on the basis of the power plants which constitute the most recent 20% of the system generation.

The clarification in the EB 23 session “that even if a part of the plant capacity enables meeting the requirement of 20% (of the generation capacity in the systems) for estimating the build margin emission factor, the total plant capacity should be considered in estimating the build margin emission factor” was taken into consideration and led to a different BM-approach than in previous JI determination projects.

$EF_y$ , the operating margin emission factor of the grid, is calculated using the most recent information on the generation and the fuel consumption of the power plants in the Estonian grid. This implies some changes, which have been made retroactively by the Estonian government for former years. This leads to some small changes compared to previous  $EF_y$  values, used in other JI determination projects.

The project’s spatial boundaries are clearly described. Regarding emission sources all aspects are covered. Only CO<sub>2</sub> emissions have correctly been identified as relevant for the project. Leakage calculations are not required.

### **3.4.2 Issued CARs / CRs**

There are no CARs / CRs

### **3.4.3 Conclusion**

The SSC project fulfils all the prescribed requirements completely.

## **3.5 Environmental Impacts**

### **3.5.1 Findings**

The concerned municipality has decided that a "limited scale EIA" is sufficient. Such a study is just under work and will be finalized until the end of 2006. It is not expected that there will be any adverse environmental effects.

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.

Environmental aspects have been discussed as part of the Detailed Land Use plan. All stakeholders have been consulted. Account has been taken of any comments. As this process is still ongoing, the implementation of any activities initiated by the stakeholders' comments has not yet been finalized. This has to be checked during the initial verification.

The local stakeholder process is well described in the PDD, but some supporting documentation is still missing.

### **3.5.2 Issued CARs / CRs**

#### Clarification Request 3 (CR #3):

Evidence has to be given what media have been used to invite comments by local stakeholders.

#### Response:

An e-mail with the following information was received December 21, 2006: The public stakeholder meeting was announced with an ad in two newspapers published two weeks earlier - in local newspaper "Lääne-Elu" and in an all-Estonian business newspaper "Äripäev". Copies of the ad are available.

#### Clarification Request 4 (CR #4):

A meeting protocol of the public meeting on October 24, 2006, is required

#### Response:

A copy of the meeting protocol was delivered by e-mail December 21, 2006.

### **3.5.3 Conclusion**

The missing information was delivered; above discussed issues are therefore resolved. As of today the SSC project fulfils all the prescribed requirements completely.

As the EIA process has not yet been finalized the implementation of any activities initiated by the stakeholders' comments is still open and has to be checked during the initial verification.

## **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 November 22, 2006. open for comments till December 21, 2006. No comments have been received.

## **5 DETERMINATION OPINION**

TÜV SÜD has performed a determination of the Estonian SSC JI Project “Virtsu III Wind Power JI Project, Estonia”.

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 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<sub>2</sub> emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

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.”

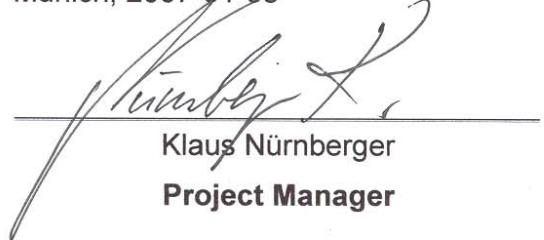
Munich, 2007-01-08



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Munich, 2007-01-08



Klaus Nürnberger

**Project Manager**



**Determination Report of the Estonian JI-Project  
“Virtsu III Wind Power JI Project, Estonia”**



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**Annex 1**

# JI-SSC-Determination Protocol

Project Title:

Virtsu III Wind Power JI Project, Estonia

Date of Completion:

Number of Pages:

27



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
<b>A. General description of the project</b>				
<b>A.1. Title of the small-scale project:</b>				
A.1.1. Does the used project title clearly enable to identify the unique JI activity?	5	The project title clearly enables the identification of the JI activity. There are other wind farms near Virtsu, some JI-supported, others not, and their name differs just by the numbering. This is, however, a common approach and is therefore accepted by the auditing team.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indication concerning the revision number and the date of the revision?	5	The revision number and the date of the issuance of this revision is correctly indicated (version 4, Nov. 7, 2006).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the project's history?	1,2,5	The given dates are in consistency with the time line of the project development.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.2. Description of the small-scale project:</b>				
A.2.1. Is the description delivering a transparent overview of the project activities?	1,2,5	The description of the project activity delivers a transparent overview of the project activities.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1,2,3,5,6,7,10,12	A meeting with the Estonian focal point proved that the project is preliminary approved and that it is included in the second reserve of the Estonian NAP (2008 – 2012). The draft order for the wind turbines and related e-mails between turbine vendor and project developer were presented. The business plan as well as the SEI Baseline Study were presented. The wind expertise by Enercon and the production results of a near-by wind farm were presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1,2,3,5,6,7,	The information provided by the PDD corresponds exactly with the information surveyed by the determination team.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

# JI-SSC-Determination Protocol

Project Title:

Virtsu III Wind Power JI Project, Estonia

Date of Completion:

Number of Pages:

27



Industrie Service

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
	10,12			
A.2.4. Is all information provided consistent with details provided by further chapters of the PDD?	5	Detail information as well as summaries are consistent throughout the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.3. Project participants:</b>				
A.3.1. Is the form required for the indication of project participants correctly applied?	1,5	Yes, all project participants are clearly indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.2. Is the participation of all listed entities or Parties confirmed by each one of them?	1,2,3,4	Responsible persons of all parties involved and of all project participants have been contacted directly or by phone. Participation has been confirmed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.3. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1,2,3,5	Name and function of project participants is consistently used throughout the PDD, including annex 1.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4. Technical description of the small-scale project:</b>				
<i>A.4.1. Location of the small-scale project:</i>				
A.4.1.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1,2,5	In the PDD there is one overview map and one detail map which indicate clearly the position of the wind farm and even of the individual turbines. This is important because there are also other wind farms close to the project Virtsu III.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.1.2. How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	13,14	The ground needed for the turbines has been bought by the wind park owner via a separate company (Oma Invest OÜ). The detailed land use planning process has started; this includes the limited scale EIA. The building permit has not yet been issued, but no problems are expected. Some contracts like the activity license (from the Energy Inspection), the Usage permit (from the local municipality) and the PPA (from Eesti Energia) will be signed only later in 2007 but there are no indications of potential problems.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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<b>A.4.2. Small-scale project type(s) and category(ies):</b>				
A.4.2.1. To which category(ies) is the project activity belonging to? Is the category correctly identified and indicated?	1,2,5	The project belongs to type I SSC-projects (renewable energy projects). This is correctly identified and indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.3. Technology(ies) to be employed, or measures, operations or actions to be implemented by the small-scale project:</b>				
A.4.3.1. Does the project design engineering reflect current good practices?	1,5,16	The project reflects a professional standard small scale wind park as it can be found in many European countries (where – in contrast to Estonia - appropriate support mechanisms guarantee the profitability of such projects). In Estonia, those wind farms are still very rare.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	1,5,12,16	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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.3. Is the technology implemented by the project activity environmentally safe?	1,2,5,16	There were no environmental problems with the surrounding wind farms (e.g. with birds) and - according to the present knowledge - also for Virtsu III no problems are to be expected. More details will be known when the EIA has been finished.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.4. Is the information provided in compliance with actual situation or planning?	5,10	The PDD reflects the actual situation correctly.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.5. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1,16	The planned wind turbines are modern state-of-the-art turbines. In Estonia there are up to now very few wind turbines erected which are all quite new and therefore comparable to the planned turbines.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.6. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	16	It is not expected that today's highly efficient wind turbines will be substituted by better technologies within the project period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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A.4.3.7. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	1,5	In the first two years the turbine manufacturer will be responsible for support and maintenance. Thereafter there will be a gradual phase-over between the turbine manufacturer and the wind farm operator. This includes training on-site and at the manufacturer's plant.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.8. Is information available on the demand and requirements for training and maintenance?	1,5	Training for support and maintenance is already now being planned, even if it will be needed only after the 2 year's warranty period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.9. Is a schedule available for the implementation of the project and are there any risks for delays?	1,5	<p>An implementation schedule exists. It is quite tight and there are several risks for delay:</p> <ul style="list-style-type: none"> <li>The delivery contract with the turbine manufacturer is not yet signed. Delaying this decision could lead to re-negotiations and delivery delays.</li> <li>Even the existing (unsigned) contract includes the option to shift the delivery data by up to 4 months. This could delay the delivery up to April 08 and the commissioning even further.</li> </ul> <p><b>Clarification Request #1:</b></p> <p>The project owner has to deliver an updated schedule and additional information to prove that the implementation schedule is realistic.</p>	CR 1	<input checked="" type="checkbox"/>
<p><b>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:</b></p>				
A.4.4.1. Is the form required for the indication of projected emission reductions correctly applied?	5	The form is filled out correctly.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4.2. Are the figures provided consistent with other data presented in the PDD?	5	The figures in the form correspond to the other data presented in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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<b>A.4.5. Confirmation that the proposed small-scale project is not a debundled component of a larger project:</b>														
A.4.5.1. Is there a registered SSC-JI project or an application to register which fulfills all of the following criteria? Comment at least every line answered with "Yes"	1,2,3	<table border="1"> <thead> <tr> <th>Applicability checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Same project participants?</td> <td>No</td> </tr> <tr> <td>Same project category and technology / measure?</td> <td>Yes</td> </tr> <tr> <td>Registered within the previous 2 years?</td> <td>Yes</td> </tr> <tr> <td>Project boundary is within 1 km of the project boundary of the proposed small-scale?</td> <td>No</td> </tr> </tbody> </table> <p>There are other wind farms near by. Wind farm Virtsu I is as close as 1,5 km at the closest point, and it is not a SSC-JI-project. Wind farm Virtsu II is a JI-project, but with other project participants and it is 3,5 km away.</p>	Applicability checklist	Yes / No	Same project participants?	No	Same project category and technology / measure?	Yes	Registered within the previous 2 years?	Yes	Project boundary is within 1 km of the project boundary of the proposed small-scale?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Same project participants?	No													
Same project category and technology / measure?	Yes													
Registered within the previous 2 years?	Yes													
Project boundary is within 1 km of the project boundary of the proposed small-scale?	No													
<b>A.5. Project approval by the Parties involved:</b>														
Open issues related to the approval of the Parties involved are covered in a separate "completeness checklist"														
<b>B. Baseline</b>														
<b>B.1. Description and justification of the baseline chosen</b>														
B.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	5,6	Both methodologies (ACM 0002, version 06) are clearly indicated in section B.1 resp. D.1 of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
B.1.2. Is the applied version the most recent one and / or is this version still applicable?	5,6	ACM 0002, version 06, is the most recent version.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
B.1.3. Is the applied methodology considered being the most appropriate one?	5,6	An alternative option would have been the simplified baseline and monitoring methodology I.D for SSC-projects ("grid connected renewable energy generation". This is a simplified subset of ACM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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		0002 and insofar the audit team accepts the stricter and therefore more conservative ACM 0002 methodology.												
Fill in the required amount of sub checklists for applicability criteria as given by the methodology applied and comment at least every line answered with "No".														
B.1.4. Criterion 1: Type of capacity addition by renewable energy	5,6	<table border="1"> <thead> <tr> <th data-bbox="1010 536 1621 571">Applicability checklist</th> <th data-bbox="1621 536 1771 571">Yes / No</th> </tr> </thead> <tbody> <tr> <td data-bbox="1010 571 1621 606">Criterion discussed in the PDD?</td> <td data-bbox="1621 571 1771 606">Yes</td> </tr> <tr> <td data-bbox="1010 606 1621 641">Compliance provable?</td> <td data-bbox="1621 606 1771 641">Yes</td> </tr> <tr> <td data-bbox="1010 641 1621 676">Evidences provided in the PDD?</td> <td data-bbox="1621 641 1771 676">Yes</td> </tr> <tr> <td data-bbox="1010 676 1621 711">Compliance verified?</td> <td data-bbox="1621 676 1771 711">Yes</td> </tr> </tbody> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Evidences provided in the PDD?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Evidences provided in the PDD?	Yes													
Compliance verified?	Yes													
B.1.5. Criterion 2: Exclusion of fuel switching activities	5,6	<table border="1"> <thead> <tr> <th data-bbox="1010 762 1621 798">Applicability checklist</th> <th data-bbox="1621 762 1771 798">Yes / No</th> </tr> </thead> <tbody> <tr> <td data-bbox="1010 798 1621 833">Criterion discussed in the PDD?</td> <td data-bbox="1621 798 1771 833">Yes</td> </tr> <tr> <td data-bbox="1010 833 1621 868">Compliance provable?</td> <td data-bbox="1621 833 1771 868">Yes</td> </tr> <tr> <td data-bbox="1010 868 1621 903">Evidences provided in the PDD?</td> <td data-bbox="1621 868 1771 903">Yes</td> </tr> <tr> <td data-bbox="1010 903 1621 938">Compliance verified?</td> <td data-bbox="1621 903 1771 938">Yes</td> </tr> </tbody> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Evidences provided in the PDD?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Evidences provided in the PDD?	Yes													
Compliance verified?	Yes													
B.1.6. Criterion 3: Defined electricity grid boundaries	5,6	<table border="1"> <thead> <tr> <th data-bbox="1010 989 1621 1024">Applicability checklist</th> <th data-bbox="1621 989 1771 1024">Yes / No</th> </tr> </thead> <tbody> <tr> <td data-bbox="1010 1024 1621 1059">Criterion discussed in the PDD?</td> <td data-bbox="1621 1024 1771 1059">Yes</td> </tr> <tr> <td data-bbox="1010 1059 1621 1094">Compliance provable?</td> <td data-bbox="1621 1059 1771 1094">Yes</td> </tr> <tr> <td data-bbox="1010 1094 1621 1129">Evidences provided in the PDD?</td> <td data-bbox="1621 1094 1771 1129">Yes</td> </tr> <tr> <td data-bbox="1010 1129 1621 1165">Compliance verified?</td> <td data-bbox="1621 1129 1771 1165">Yes</td> </tr> </tbody> </table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Evidences provided in the PDD?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Evidences provided in the PDD?	Yes													
Compliance verified?	Yes													
B.1.7. Criterion 4: Approved inclusion in other methodologies (if applied only)		According to a JI SC decision CDM-methodologies like ACM 0002 methodology can be used within JI methodologies.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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<b>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</b>				
Description of how the baseline scenario is identified and description of the identified baseline scenario				
B.2.1. Is it clearly described that the baseline is represented by the combined margin of the grid the activity will be connected to?	1,5	It is made clear that the baseline is computed on the basis of the Estonian power grid.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.2. In case of any modification or retrofit of existing facilities: Is data available to determine the historic production level?		Not applicable.		
B.2.3. In case of any modification or retrofit of existing facilities: Have conservative assumptions been applied in order to estimate the point in time when the existing equipment needs to be replaced?		Not applicable.		
B.2.4. Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?	1,5, 6,7	ACM0002 defines a standard baseline scenario: "Electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described below." This statement has been supported by discussing in more detail four different baseline scenario alternatives in the baseline study.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.5. Have realistic and credible alternatives been identified providing comparable outputs or services? (step 1a)	1,5, 6,7	According to our knowledge above mentioned alternatives are indeed the scenarios which have been discussed in Estonia. There are no further scenarios that might present attractive options to those ones presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.6. Is the project activity without JI included in these alternatives? (step 1a)	1,5, 6,7	Yes, scenario 3 is such an alternative.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.7. Is a discussion provided for all identified	1,5,	Yes. Scenario 1 ("continuation of current production and operation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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alternatives concerning the compliance with applicable laws and regulations? (step 1b)	6,7	of Balti and Eesti power plants”) has been excluded as it does not comply with environmental regulations.		
B.2.8. In case the PDD argues that specific laws are not enforced in the country or region: Is evidence available concerning that statement? (step 1b)	5	This argument is not used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.9. In case of applying step 2 of the additionality tool: Is the analysis method appropriately identified (step 2a)?	1,5,6,7	Option III (benchmark analysis) is identified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.10. In case of Option I (simple cost analysis): Is demonstrated that the activity produces no economic benefits other than JI income?		Not applicable.		
B.2.11. In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?		Not applicable.		
B.2.12. In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified?	1,5,6,7	The IRR (internal rate of return) has been used as financial indicator. This is the most suitable indicator for investors.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.13. 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?	1,5,6,7	The various baseline scenario alternatives are supporting the standard baseline, defined by ACM0002. No financial comparison is made nor is it needed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.14. In case of Option II or Option III: Is the analysis presented in a transparent manner providing public available proofs for data?		Not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.15. In case of applying step 3 (barrier analy-	1,5,	Clear reasons are given to exclude two more scenarios:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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sis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	6,7	<ul style="list-style-type: none"> <li>Scenario 3 (“closure of Balti power plant and replacement by non-JI wind power”) is excluded due to financial reasons. It is shown that none of the Estonian wind farms has been built without JI-support or donor grant support</li> <li>Scenario 4 („close part of Balti power plant and replace with gas fired power“) is excluded due to financial and political reasons (dependency on foreign resources)</li> </ul>		
B.2.16. In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1,5,6,7	The importance and the effect of the barrier “investment” is clearly demonstrated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.17. 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?	1,5,6,7	It is shown that scenario 2 is financially viable and that current renovation projections follow this development path.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.18. Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	1,3,5,6,7	Other wind farm projects are being planned. A list of those projects was presented by the focal point and it was shown that all of them suffer from the same barriers and need therefore support by external grants or the JI-program.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.19. 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)?	1,3,5,6,7	As mentioned above, it was demonstrated that none of the similar activities are expected to succeed without JI-support.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.20. Is it appropriately explained how the approval of the project activity will alleviate the economic and financial hurdles or other identified barriers (step 5)?	1,5,6,7	<p>The PDD states that the impact of the JI-support on the IRR is about 2%. This is not deducible from the Business plan calculation spread sheet.</p> <p><b><u>Clarification Request #2:</u></b></p> <p>Additional information has to be delivered to prove the IRR effect of about 2%.</p>	CR 2	<input checked="" type="checkbox"/>

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<b>B.3. Description of how the definition of the project boundary is applied to the small scale project:</b>														
B.3.1. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by the PDD?	1,5	Spatial and technological boundaries comply with the statements in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
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: Fugitive Emissions from non-condensable gases (geothermal activities only) Gas(es): CO <sub>2</sub> , CH <sub>4</sub> Type: Project Emissions		Not applicable.												
B.3.3. Source: Emissions from combustion of fossil fuels (geothermal activities only) Gas(es): CO <sub>2</sub> Type: Project Emissions		Not applicable.												
B.3.4. Source: Emissions from the reservoir (new hydroelectric activities only) Gas(es): CO <sub>2</sub> , CH <sub>4</sub> Type: Project Emissions		Not applicable.												
B.3.5. Source: emissions from electricity generation in fossil fuel fired power plants of any connected electricity system Gas(es): CO <sub>2</sub> Type: baseline emissions	5	<table border="1"> <thead> <tr> <th>Boundary checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Source and gas(es) discussed by the PDD?</td> <td>Yes</td> </tr> <tr> <td>Inclusion / exclusion justified?</td> <td>Yes</td> </tr> <tr> <td>Explanation / Justification sufficient?</td> <td>Yes</td> </tr> <tr> <td>Consistency with monitoring plan?</td> <td>Yes</td> </tr> </tbody> </table>	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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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													
B.3.6. Source:		Imports are from connected electricity systems located in another	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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Emissions from electricity generation in fossil fuel fired power plants of imported electricity Gas(es): CO <sub>2</sub> Type: Baseline Emissions			country and their emission factor is set to 0 tons CO <sub>2</sub> per MWh.		
<b>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>					
B.4.1.	Is there any indication of a date when determining the baseline?	5	The date of the baseline setting is indicated (November 2006).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.2.	Is this in consistency with the time line of the PDD history?	5	The date of the baseline study corresponds with the PDD date.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	2,5	Stockholm Environmental Institute (SEI) is named as responsible for the baseline study.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.4.	Is information provided whether this person / entity is also a project participant?	2,5	This information is given; SEI is no project participant.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>C. Duration of the project activity / crediting period</b>					
C.1.	Are the project's starting date and operational lifetime clearly defined and reasonable?	5	The project's starting date and the operational lifetime are correctly indicated and reflect the envisioned schedule for the implementation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2.	Is the assumed crediting time clearly defined and reasonable (crediting period between 2008 and 2012)?	5	The crediting period and its type are clearly defined (from Jan. 1, 2008 to Dec. 31, 2012).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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<b>D. Monitoring plan</b>				
<b>D.1. Description of monitoring plan chosen:</b>				
D.1.1. Is the applied methodology considered being the most appropriate one?	5	The consolidated monitoring methodology ACM0002 “Consolidated monitoring methodology for zero-emissions grid-connected electricity generation from renewable sources” has been used. This is an integral part of the respective baseline methodology and therefore the most appropriate approach.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>D.2. Data to be monitored:</b>				
In the following “data checklists” are shown for all data which are fixed at determination time, and “monitoring checklists” for all data which have to be monitored during the life-time of the project.				
D.2.1. Is the list of parameters presented by chapter D.2. considered to be complete with regard to the requirements of the applied methodology?		PDD chapter D.2 covers only the data which are to be monitored during project operation (net electricity supplied to the grid). It is required that also other data which are determined just once ex ante, are covered.  <b><u>Corrective Action Request #1:</u></b> Add ex ante required data to PDD chapter D.2 (see following sections D.2.2. to D.2.13.).	<b>CAR 1</b>	
D.2.2. Is the choice of ex-ante or ex-post vintage of OM and BM factors clearly specified in the PDD?		It is clearly stated that the ex-ante approach is used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fill in the required amount of sub checklists for fixed data parameter and comment any line answered with “No”				
D.2.3. Parameter Title: Annual electricity supplied to the grid prior to retrofit (applicable only for retrofit and modification activities)		Not applicable.		

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D.2.4. Parameter Title: $EF_y$ Emission factor of the grid (CM)	6,8,9	<table border="1" data-bbox="1010 376 1771 695"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description of parameter?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>Yes</td> </tr> </tbody> </table> <p data-bbox="1010 730 1861 799">The emission factor is calculated as weighted average of Operating Margin (D.2.5.) and Build Margin (D.2.6.).</p>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	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	See D.2.1.	
Data Checklist	Yes / No																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	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																					
D.2.5. Parameter Title: $EF_{OM}$ Operating Margin emission factor of the grid	6,8,9	<table border="1" data-bbox="1010 866 1771 1185"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>Yes</td> </tr> </tbody> </table> <p data-bbox="1010 1220 1861 1422"><math>EF_y</math> is calculated using the most recent information on the generation and the fuel consumption of the power plants in the Estonian grid. This implies some changes, which have been made retroactively by the Estonian government for former years. This leads to some small changes compared to previous <math>EF_y</math> values, used in other JI determination projects.</p>	Data Checklist	Yes / No	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	See D.2.1.	
Data Checklist	Yes / No																					
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																					
D.2.6. Parameter Title:	6,8,9		See																			

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$EF_{BM}$ Build Margin emission factor of the grid		<table border="1" data-bbox="1010 347 1771 663"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>Yes</td></tr> <tr><td>Data unit correctly expressed?</td><td>Yes</td></tr> <tr><td>Appropriate description?</td><td>Yes</td></tr> <tr><td>Source clearly referenced?</td><td>Yes</td></tr> <tr><td>Correct value provided?</td><td>Yes</td></tr> <tr><td>Has this value been verified?</td><td>Yes</td></tr> <tr><td>Choice of data correctly justified?</td><td>Yes</td></tr> <tr><td>Measurement method correctly described?</td><td>Yes</td></tr> </tbody> </table> <p data-bbox="1010 699 1872 935">The clarification in the EB 23 session “that even if a part of the plant capacity enables meeting the requirement of 20% (of the generation capacity in the systems) for estimating the build margin emission factor, the total plant capacity should be considered in estimating the build margin emission factor” was taken into consideration and led to a different BM-approach than in previous JI determination projects.</p>	Data Checklist	Yes / No	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	D.2.1.	
Data Checklist	Yes / No																					
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																					
D.2.7. Parameter Title: F fuel consumption: amount of each fossil fuel consumed by each power source / plant	6,8,9	<table border="1" data-bbox="1010 1007 1771 1323"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr><td>Title in line with methodology?</td><td>Yes</td></tr> <tr><td>Data unit correctly expressed?</td><td>Yes</td></tr> <tr><td>Appropriate description?</td><td>Yes</td></tr> <tr><td>Source clearly referenced?</td><td>Yes</td></tr> <tr><td>Correct value provided?</td><td>Yes</td></tr> <tr><td>Has this value been verified?</td><td>Yes</td></tr> <tr><td>Choice of data correctly justified?</td><td>Yes</td></tr> <tr><td>Measurement method correctly described?</td><td>Yes</td></tr> </tbody> </table> <p data-bbox="1010 1358 1872 1430">Details of fuel consumption are available to the AIE, but otherwise confidential. Cumulated data are public.</p>	Data Checklist	Yes / No	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	See D.2.1.	
Data Checklist	Yes / No																					
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																					

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D.2.8. Parameter Title: COEF CO2 emission coefficient of each fuel type	6,8,9	<table border="1"> <thead> <tr> <th data-bbox="1010 379 1621 416">Data Checklist</th> <th data-bbox="1621 379 1771 416">Yes / No</th> </tr> </thead> <tbody> <tr> <td data-bbox="1010 416 1621 453">Title in line with methodology?</td> <td data-bbox="1621 416 1771 453">Yes</td> </tr> <tr> <td data-bbox="1010 453 1621 489">Data unit correctly expressed?</td> <td data-bbox="1621 453 1771 489">Yes</td> </tr> <tr> <td data-bbox="1010 489 1621 526">Appropriate description?</td> <td data-bbox="1621 489 1771 526">Yes</td> </tr> <tr> <td data-bbox="1010 526 1621 563">Source clearly referenced?</td> <td data-bbox="1621 526 1771 563">Yes</td> </tr> <tr> <td data-bbox="1010 563 1621 600">Correct value provided?</td> <td data-bbox="1621 563 1771 600">Yes</td> </tr> <tr> <td data-bbox="1010 600 1621 636">Has this value been verified?</td> <td data-bbox="1621 600 1771 636">Yes</td> </tr> <tr> <td data-bbox="1010 636 1621 673">Choice of data correctly justified?</td> <td data-bbox="1621 636 1771 673">Yes</td> </tr> <tr> <td data-bbox="1010 673 1621 710">Measurement method correctly described?</td> <td data-bbox="1621 673 1771 710">Yes</td> </tr> </tbody> </table>	Data Checklist	Yes / No	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	See D.2.1.	
Data Checklist	Yes / No																					
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																					
D.2.9. Parameter Title: GEN electricity generation of each power source	6,8,9	<table border="1"> <thead> <tr> <th data-bbox="1010 804 1621 841">Data Checklist</th> <th data-bbox="1621 804 1771 841">Yes / No</th> </tr> </thead> <tbody> <tr> <td data-bbox="1010 841 1621 877">Title in line with methodology?</td> <td data-bbox="1621 841 1771 877">Yes</td> </tr> <tr> <td data-bbox="1010 877 1621 914">Data unit correctly expressed?</td> <td data-bbox="1621 877 1771 914">Yes</td> </tr> <tr> <td data-bbox="1010 914 1621 951">Appropriate description?</td> <td data-bbox="1621 914 1771 951">Yes</td> </tr> <tr> <td data-bbox="1010 951 1621 987">Source clearly referenced?</td> <td data-bbox="1621 951 1771 987">Yes</td> </tr> <tr> <td data-bbox="1010 987 1621 1024">Correct value provided?</td> <td data-bbox="1621 987 1771 1024">Yes</td> </tr> <tr> <td data-bbox="1010 1024 1621 1061">Has this value been verified?</td> <td data-bbox="1621 1024 1771 1061">Yes</td> </tr> <tr> <td data-bbox="1010 1061 1621 1098">Choice of data correctly justified?</td> <td data-bbox="1621 1061 1771 1098">Yes</td> </tr> <tr> <td data-bbox="1010 1098 1621 1134">Measurement method correctly described?</td> <td data-bbox="1621 1098 1771 1134">Yes</td> </tr> </tbody> </table>	Data Checklist	Yes / No	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	See D.2.1.	
Data Checklist	Yes / No																					
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																					
D.2.10. Parameter Title: surface area of full reservoir level (for new hydroelectric activities only)		Not applicable.																				
D.2.11. Parameter Title: fraction of time with low costs /must run plant at the margin (for simple adjusted		Not applicable.																				



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OM only)																										
D.2.12. Parameter Title: GEN <sub>IMPORTS</sub> electricity imports to the project electric- ity system	6,8,9	<table border="1"> <thead> <tr> <th>Data Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>Yes</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Choice of data correctly justified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>Yes</td> </tr> </tbody> </table>	Data Checklist	Yes / No	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	See D.2.1.					
Data Checklist	Yes / No																									
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																									
D.2.13. Parameter Title: COEF <sub>IMPORTS</sub> CO2 emission coefficient of fuels used in connected electricity systems	6	CO2 emissions of imported electricity is set to 0 tons CO2 per MWh.	See D.2.1.																							
Fill in the required amount of sub checklists for monitoring parameter and comment any line answered with "No"																										
D.2.14. Parameter Title: EG <sub>y</sub> Net electricity supplied to the grid	1,5, 10,15	<table border="1"> <thead> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Title in line with methodology?</td> <td>See re- mark</td> </tr> <tr> <td>Data unit correctly expressed?</td> <td>Yes</td> </tr> <tr> <td>Appropriate description?</td> <td>Yes</td> </tr> <tr> <td>Source clearly referenced?</td> <td>Yes</td> </tr> <tr> <td>Correct value provided for estimation?</td> <td>Yes</td> </tr> <tr> <td>Has this value been verified?</td> <td>Yes</td> </tr> <tr> <td>Measurement method correctly described?</td> <td>Yes</td> </tr> <tr> <td>Correct reference to standards?</td> <td>Yes</td> </tr> <tr> <td>Indication of accuracy provided?</td> <td>Yes</td> </tr> <tr> <td>QA/QC procedures described?</td> <td>Yes</td> </tr> </tbody> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	See re- mark	Data unit correctly expressed?	Yes	Appropriate description?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	QA/QC procedures described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																									
Title in line with methodology?	See re- mark																									
Data unit correctly expressed?	Yes																									
Appropriate description?	Yes																									
Source clearly referenced?	Yes																									
Correct value provided for estimation?	Yes																									
Has this value been verified?	Yes																									
Measurement method correctly described?	Yes																									
Correct reference to standards?	Yes																									
Indication of accuracy provided?	Yes																									
QA/QC procedures described?	Yes																									

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		<table border="1" data-bbox="1010 347 1771 384"> <tr> <td data-bbox="1010 347 1621 384">QA/QC procedures appropriate?</td> <td data-bbox="1621 347 1771 384">Yes</td> </tr> </table> <p>The PDD uses the term “net electricity production” instead of the methodology term “electricity production”. The approach of adding the term “net” clarifies the parameter better and is supported by the auditing team.</p> <p>The estimated value is base on a wind expert’s report by Enercon. Conservative reduction factors have been considered for method uncertainties, availability and electrical losses. Comparison with the results of near-by wind farm Virtsu I confirm the conservative approach.</p> <p>QA/QC procedures are well described and appropriate. As the substation and meters have not yet been built realization of QA/QC procedures has to be checked during the initial verification.</p>	QA/QC procedures appropriate?	Yes		
QA/QC procedures appropriate?	Yes					
D.2.15. Parameter Title: Quantity of steam produced (for geothermal projects only)		Not applicable.				
D.2.16. Parameter Title: Fraction of CO2 in steam produced (for geothermal projects only)		Not applicable.				
D.2.17. Parameter Title: Fraction of CH4 in steam produced (for geothermal projects only)		Not applicable.				
D.2.18. Parameter Title: Quantity of steam generated during well testing (for geothermal projects only)		Not applicable.				
D.2.19. Parameter Title: Fraction of CO2 in steam during well testing (for geothermal projects only)		Not applicable.				

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D.2.20. Parameter Title: Fraction of CH <sub>4</sub> in steam during well testing (for geothermal projects only)		Not applicable.		
D.2.21. Parameter Title: CO <sub>2</sub> emission coefficient of fuel used by the geothermal plant (for geothermal projects only)		Not applicable.		
<b>D.3. Quality control (QC) and quality assurance (QA) procedures undertaken for data monitored:</b>				
This aspect is covered for the relevant data in section D.2.14 – D.2.21.				
<b>D.4. Please describe the operational and management structure that the project operator will apply in implementing the monitoring plan:</b>				
D.4.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	1,5,10	The operational and management structure is clearly described and matches with the envisioned situation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.4.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1,5	The responsibilities are with the manager of Roheline Ring OÜ, the wind farm operator.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.4.3. Does the monitoring plan provide current good monitoring practice?	1,5	The monitoring plan is not yet fully worked out but covers all necessary aspects. It corresponds with the set-up of other small wind farm projects. The operator is also involved in other wind farms and has therefore ample experience. Check of the completed monitoring plan will be done during the initial verification.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.4.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?		Not applicable.		

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<b>D.5. Name of person(s)/entity(ies) establishing the monitoring plan:</b>				
D.5.1. Is information of the person(s) / entity(ies) responsible for the monitoring methodology provided in consistency with the actual situation?	1,5	The information is consistent with the actual situation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.5.2. Is information provided whether this person / entity is also a project participant?	5	This information is indirectly given, as Roheline Ring is named as project participant.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E. Estimation of greenhouse gas emission reductions</b>				
<b>E.1. Estimated project emissions and formulae used in the estimation</b>				
Explanation of methodological choices				
E.1.1. Is it explained how the procedures provided by the methodology are applied by the proposed project activity?	1,5,6	<p>The Baseline study (annex 2 of the PDD) describes that the simple OM approach has been used to calculate the Operating Margin (low cost / must run resources less than 50% of total generation). The OM is calculated ex-ante. The Build Margin is also calculated ex-ante on the basis of the power plants which constitute the most recent 20% of the system generation.</p> <p>The clarification in the EB 23 session “that even if a part of the plant capacity enables meeting the requirement of 20% (of the generation capacity in the systems) for estimating the build margin emission factor, the total plant capacity should be considered in estimating the build margin emission factor” was taken into consideration and led to a different BM-approach than in previous JI determination projects.</p> <p>The Combined Margin is calculated with the default weights <math>w_{OM} = 0.75</math> and <math>w_{BM} = 0.25</math>, as indicated for wind projects.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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E.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1,2,3,5,6	It could be verified that the methodology has been properly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.3. Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1.5,6,15	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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ex-ante calculation of emission reductions				
E.1.4. Is the projection based on the same procedures as used for future monitoring?	5	The projection is done by the same algorithms as used for later monitoring.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.5. Are the GHG calculations documented in a complete and transparent manner?	5,6,7	The detailed calculation of operating margin and build margin up to the combined margin can be checked transparently in the spreadsheet provided by SEI as part of the Baseline study. The calculation of the emission reduction is clearly demonstrated in the PDD and the business plan.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.6. Is the data provided under this section in consistency with data as presented by other chapters of the PDD?	5,6,7	The estimated value of the wind farm production is consistently used throughout the PDD and attached documents.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.7. Is the choice of options to determine the emissions factor (OM, BM) justified in a suitable and transparent manner?	5,6,7	The choice of options to calculate the emission factors is suitable and takes also recent EB / JISC-decisions into account	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.8. In case of alternative weighing factors for the Combined Margin: Is the quantification of the alternative weighing factor justified in a suitable and transparent manner?	5,6	The standard weighting factor for wind energy projects has been used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.9. In case of alternative weighing factors for		Not applicable.		

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the Combined Margin: Is the guidance for the PDD concerning the acceptability of alternative weights considered in the discussion?				
<b>E.2. Estimated leakage and formulae used in the estimation, if applicable:</b>				
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?	5,6	There are no leakage emissions in this wind power project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.3. The sum of E.1. and E.2.:</b>				
E.3.1. Is the data provided under this section in consistency with data as presented by other chapters of the PDD?	5	The section is correctly filled out; the data are consistent with other data in the PDD and associated documents.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.4. Estimated baseline emissions and formulae used in the estimation:</b>				
E.4.1. Are formulae required for the estimation of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	5,6	The formulae in the PDD and especially in the baseline study by SEI are correctly presented and allow the identification of parameters used / monitored.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.5. Difference between E.4. and E.3 representing the emission reductions of the project:</b>				
E.5.1. Are formulae required for the determination of emission reductions correctly presented?	5	The formulae are correctly presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.6. Table providing values obtained when applying formulae above:</b>				
E.6.1. Will the project result in fewer GHG emissions than the baseline scenario?	5	The project activity will result in emission reductions.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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E.6.2. Is the form/table required for the indication of projected emission reductions correctly applied?	5	The form is correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.6.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	5	The projection of emission reductions corresponds with the envisioned time schedule and the indicated crediting period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.6.4. Is the data provided under this section in consistency with data as presented by other chapters of the PDD?	5,6,7	The data are consistent with other data in the PDD and associated documents.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F. Environmental impacts</b>				
<b>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:</b>				
F.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	5,13	The analysis of the environmental impact will be described in a small scale EIA. This study is at present under work and will be finalized until the end of 2006.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	5,13	The concerned municipality has decided that a "limited scale EIA" is sufficient. Such a study is just under work and will be finalized until the end of 2006 (see above).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.3. Will the project create any adverse environmental effects?	1,5	It is not expected that there will be any adverse environmental effects.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.4. Are transboundary environmental impacts considered in the analysis?	1,5,6	There are no transboundary environmental impacts by the wind farm project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
<b>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:</b>				
F.2.1. Have identified environmental impacts been addressed in the project design?	1,5	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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.2.2. Does the project comply with environmental legislation in the host country?	1,5	It can be assumed that the project complies with the environmental legislation in the host country. The planning process, however, is not yet so far advanced that the respective statement of the local environmental authority exists.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>G. Stakeholders' comments</b>				
<b>G.1. Information on stakeholders' comments on the project, as appropriate:</b>				
G.1.1. Have relevant stakeholders been consulted?	1,2, 3,5	As part of the Detailed Land Use plan all stakeholders have been consulted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G.1.2. Have appropriate media been used to invite comments by local stakeholders?	5	<b>Clarification Request #3:</b> Evidence has to be given what media have been used to invite comments by local stakeholders.	CR 3	<input checked="" type="checkbox"/>
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?	1,5, 17	The stakeholder process has been carried out in accordance with the Detailed Land Use plan process.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?	1,5	The process is well described in the PDD; some supporting documentation is still missing (see CR3 / CR4).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
G.1.5. Is a summary of the stakeholder comments received provided?	1,5, 17	A summary has been provided in the PDD, but no meeting protocol exists. <b>Clarification Request #4:</b> A meeting protocol of the public meeting on October 24, 2006, is required.	CR 4	<input checked="" type="checkbox"/>
G.1.6. Has due account been taken of any stakeholder comments received?	1,5, 17	Account has been taken of any comments. As this process is still ongoing, the implementation of any activities initiated by the stakeholders' comments has not yet been finalized. This has to be checked during the initial verification.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## H. Annexes 1 – 4

### Annex 1: Contact Information

H.1.1. Is the information provided in consistency with the one given under section A.3?	1,2	OK.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H.1.2. Is information on all private participants and directly involved Parties presented?	1,2	OK.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Annex 2: Baseline study

H.1.3. If additional background information on baseline data is provided: Is this information in consistency with data presented by other sections of the PDD?	2,6,8 ,9	The information in the baseline study is an expanded version of the summary in the PDD. All information is consistent with the PDD-information.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H.1.4. Is the data provided verifiable? Has sufficient evidence been provided to the determination team?	2,6,8 ,9	The data provided have been checked against recent publications and against company-internal data which were made available for the Estonian NAP-process. Generation data are made public per power plant. Fuel use data per power plant are confidential; they are available to the AIE but are not to be disclosed to the public.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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		Cumulated data, however, are made public. Additionally plausibility checks have been applied. No discrepancies were found.			
H.1.5.	Does the additional information substantiate statements given in other sections of the PDD?	2,6,8,9	All information is consistent with the PDD-information and supports many statements about the renewable energy policy of Estonia and wind farm barriers.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Annex 3: Monitoring information</b>					
H.1.6.	If additional background information on monitoring is provided: Is this information in consistency with data presented by other sections of the PDD?		Not applicable.		
H.1.7.	Is the information provided verifiable? Has sufficient evidence been provided to the determination team?		Not applicable.		
H.1.8.	Do the additional information / procedures substantiate statements given in other sections of the PDD?		Not applicable.		

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**Table 2 Resolution of Corrective Action and Clarification Requests**

Clarifications and corrective action requests by determination team	Ref. to table 1	Summary of project owner response	Validation team conclusion
<p><b><u>Clarification Request #1:</u></b></p> <p>The project owner has to deliver an updated schedule and additional information to prove that the implementation schedule is realistic.</p>	<p>A.4.3.9.</p>	<p>Verbal information by the project owner was received December 21, 2006: There are no updates on the schedule. The contract with the turbine manufacturer has not been signed yet.</p>	<p>As detailed in section a.4.3.9. the implementation schedule is quite tight. The project owner's response confirms the view of the validation team that there is a considerable danger to miss the scheduled dates by some quarters. As none of the important decisions has been taken in the last 2 months the risk for the project has been even increased. This is not regarded as an aspect disqualifying the project for registration.</p>
<p><b><u>Clarification Request #2:</u></b></p> <p>Additional information has to be delivered to prove the IRR effect of about 2%.</p>	<p>B.2.20.</p>	<p>A new PDD version (v.5) was delivered by e-mail December 14, 2006, taking account of the CR.</p> <p>The statement in version 4 of the PDD was erroneous. The PDD was changed. It states now that the project IRR is improved by ca. 1 percentage point, turning the net present value of the investment from negative to positive.</p>	<p>The changed statement corresponds to the results of the financial analysis. The open issue was therefore resolved.</p>
<p><b><u>Corrective Action Request #1:</u></b></p> <p>Add ex ante required data to PDD chapter D.2 (see sections D.2.2 to D.2.8.).</p>	<p>D.2.1.</p>	<p>A new PDD version (v.5) was delivered by e-mail December 14, 2006, taking account of the CAR.</p> <p>All required parameters have been added to PDD chapter D.2.</p>	<p>The open issue was resolved by changes in the PDD.</p>

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<p><b><u>Clarification Request #3:</u></b> Evidence has to be given what media have been used to invite comments by local stakeholders.</p>	<p>G.1.2.</p>	<p>An e-mail with the following information was received December 21, 2006:  The public stakeholder meeting was announced with an ad in two newspapers published two weeks earlier - in local newspaper "Lääne-Elu" and in an all-Estonian business newspaper "Äripäev". Copies of the ad are available.</p>	<p>Announcement in newspapers is considered as an appropriate way to inform stakeholders.  The open issue was resolved by additional information.</p>
<p><b><u>Clarification Request #4:</u></b> A meeting protocol of the public meeting on October 24, 2006, is required.</p>	<p>G.1.5.</p>	<p>[a copy of the meeting protocol was delivered by e-mail December 21, 2006]</p>	<p>The open issue was resolved by the additional document (#17 of the information reference list).</p>

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

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

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**Annex 2**

## Information Reference List

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Reference No.	Document or Type of Information
1.	<p>On-site interview with the project developer and the JI-consultant at the site of the Virtsu III wind park in Virtsu, <u>Estonia at October 30, 2006</u>, by auditing team of TÜV SÜD Industrie Service GmbH</p> <p>Validation team on-site: Dr. Thyge Weller                      TÜV SÜD Industrie Service GmbH Ranno Mellis                              OÜ Projektkeskus, Tallin, Estonia</p> <p>Interviewed persons: Tullio Liblik                              OÜ Roheline Ring (Board Member), Kuressaare, Estonia Hannu Lamp                                LH Carbon OÜ, Tallinn, Estonia</p>
2.	<p>On-site interview with representative of the Stockholm Environment Institute (SEI), Tallin Centre, at SEI's office in Tallinn <u>at October 30, 2006</u> by auditing team of TÜV SÜD Industrie Service GmbH</p> <p>Validation team on-site: Dr. Thyge Weller                      TÜV SÜD Industrie Service GmbH Ranno Mellis                              OÜ Projektkeskus, Tallin, Estonia</p> <p>Interviewed person: Valdur Lahtvee                           SEI, director Tallinn Centre, Tallinn, Estonia</p> <p>Further participant: Hannu Lamp                                LH Carbon OÜ, Tallinn, Estonia</p>
3.	<p>On-site interview with representative of the national focal point for JI at <u>the Estonian Ministry for the environment at October 30, 2006</u> by auditing team of TÜV SÜD Industrie Service GmbH</p> <p>Validation team on-site: Dr. Thyge Weller                      TÜV SÜD Industrie Service GmbH Ranno Mellis                              OÜ Projektkeskus, Tallin, Estonia</p> <p>Interviewed person: Karin Radiko                                Ministry of the Environment (JI - Officer), Tallinn, Estonia</p>

