



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

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SECTION A. General description of the small-scale project

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

Virtsu III Wind Power Joint Implementation Project, Estonia
Ver. no. 4, November 7 2006

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

The proposed project activity is the development of a wind power project at the western coast of Estonia at the municipality of Hanila. The wind farm will consist of three 2.3 MW wind turbines and thus have a total installed capacity of 6.9 MW. The expected net output of this project is 16,510 MWh per year. The renewable electricity produced by the wind power plant will displace carbon intensive electricity produced from fossil fuel sources in the Estonian grid.

A.3. Project participants:

Party involved	Legal entity project participant (as applicable)	Please indicate if the Party involved wishes to be considered as project participant (Yes/No)
Republic of Estonia (host Party)	<ul style="list-style-type: none"> OÜ Roheline Ring - an Estonian private wind power development company that is already operating two wind farms in Estonia incl. one under the JI scheme with the Austrian JI/CDM Programme (Esivere/VirtsuII) 	No
Republic of Austria	<ul style="list-style-type: none"> Kommunalkredit Public Consulting GmbH 	No

The PDD was prepared by an Estonian company LHCarbon OÜ, represented by Hannu Lamp. Tel: +372 51 41 800.

Figure 2. Location of the project, incl. Virtsu II wind farm





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

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

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

The purpose of the project is the development and construction of a wind power project in Estonia. Emission reductions will be generated by the operation of the wind power facility as described in this PDD. The power generation will displace carbon-intensive generation from the Estonian grid.

The project foresees an erection of 3 units of ENERCON E70 2300 kW. The site is located at the western coast of Estonia at Hanila municipality and meets all prerequisites for successful wind power generation – good wind conditions, nearby technical infrastructure (grid, roads, port) and no environmental or other restrictions.

The project will employ state of the art wind turbine technology from one of the world's foremost equipment suppliers, ENERCON. The E70 2300 kW wind energy converter has 85 m hub height steel tower and a 71m rotor diameter designed for class II wind speeds. For further information on the technology and the supplier please visit www.enercon.de.

The chosen wind turbines are well suited for the site's wind conditions as they enable to maximise the green electricity output from the site and to benefit from economies of scale as ENERCON is also servicing four similar E70 wind turbines at the Esivere site and three E44 wind turbines at the Virtsu I site, both located at the same region with the Virtsu III project.

In order to determine the best possible location for the wind turbines within the site, computer programme WindPRO has been used to optimise the location, taking determinants such as wind speed distribution, wind turbine characteristics, terrain characteristics as well as noise and shadow limits into consideration.

An energy production estimate has been completed by ENERCON based on wind measurements at site and detailed modelling using computer software WindPRO. Also operating experience from the nearby Esivere and Virtsu I wind farms provides additional security for the energy production estimate. Wind conditions of the site can be compared with the wind conditions of good wind sites in other European countries. Based on the measured wind data, net annual energy production of the project is estimated at 16,510 MWh.

A contract for grid connection to a nearby 110 kV substation has already been signed with Eesti Energia Main Grid business unit and reconstruction of the substation for the purpose will be finalized by September 2007. According to law Eesti Energia is obliged to provide grid interconnection if adequate capacity exists on the grid. Rights to grid interconnection and sales of electricity will be secured in accordance with legislation and by conclusion of the following additional agreements with Eesti Energia: Network Agreement and Power Purchase Agreement.

The grid connection point is common for the proposed Virtsu III and Virtsu II wind power plant (which is also to be commissioned in 2007). Separate meters will be installed at the 20 kV side of transformer in order to distinguish between the electricity and emission reduction generation of the two projects, taking also the transformer losses relative to the wind power plants' electricity generation into account. The metering equipment will be sealed and calibrated and checked periodically for accuracy.



Negotiations with ENERCON for the delivery of wind turbines have been finalized. The wind turbine supplier will be contracted to construct the wind turbine generators on a fixed-priced basis, according to an EPC contract. Local civil construction companies will be sub-contracted for construction of project infrastructure. Technical operation and maintenance of the wind farm will be taken care of by ENERCON in cooperation with OÜ Roheline Ring. The expected technical lifetime of the wind turbines is 20 years.

The detailed land use planning and limited-scale ENVIRONMENTAL IMPACT ASSESSMENT of the project is ongoing and it is expected that the building permit is issued by the local municipality by the end of 2006. All necessary agreements for construction and operation of the wind farm are expected to be signed by Q1 2007 so that the implementation of the wind farm can start in Q2 and full operation can be achieved by latest end of Q4 2007. No risks are foreseen with approval of the ENVIRONMENTAL IMPACT ASSESSMENT and issuing of the building permit as the developer has reached principle agreements for establishment of the wind farm with the municipality, environmental authorities and other key stakeholders.

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

The renewable electricity produced by the wind power plant will displace carbon intensive electricity produced from fossil fuel sources in the Estonian grid.

The wind power project has been under development for several years. The project supports Estonia's goals under the Long Term Development Plan for Estonian Fuel and Energy Sector for the promotion of the renewable energy sector. In line with the EU RES directive Estonia's goal is to reach a 5,1% share of renewable electricity in final electricity consumption (RES-E) by year 2010. Furthermore, Estonia's goal under the National Electricity Sector Development Plan 2005-15 is to reach a 8% share of RES-E by year 2015.

This is assisted by the Electricity Market Act, adopted in early 2003, which sets out the framework for further harmonisation with EU market such as ongoing liberalisation and wider use of renewables incl. an obligatory purchase of electricity generated from renewable sources.

The wind energy sector in Estonia is yet small (currently ca. 35 MW installed) but showing signs of growth. However, large financing barriers exist, and therefore only a few modern wind farms financed under the Joint Implementation schemes with the Finnish and Austrian JI/CDM programme have been constructed. The principal barrier is the low rate of return due to the low feed-in tariff. The tariff is fixed at level of EEK 0.81 or ca. € 0.052 / kWh. A recent report of the European Commission concludes that the supported price level for onshore wind power is clearly insufficient and below marginal abatement costs.¹

As Estonia has a favourable investment climate, and a support mechanism (albeit insufficient for a commercial return) there has been some interest in developing wind project. However, it is very unlikely that future project will proceed without further financial interventions such as Joint Implementation (JI).

¹ P. 28, Communication from the Commission. The support of electricity from renewable energy sources. Commission of the EC. Brussels 7.12.2005



A.4.4.1. Estimated amount of emission reductions over the <u>crediting period</u>:	
Length of the crediting period	5 years
Year	Estimate of annual emission reductions in tonnes of CO2 equivalent
2008	18 186,9
2009	18 186,9
2010	18 186,9
2011	18 186,9
2012	18 186,9
Total estimated emission reductions over the crediting period (tonnes of CO2 equivalent)	90 935
Annual average of estimated emission reductions over the crediting period (tonnes of CO2 equivalent)	18 186,9

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

The Virtsu III Wind Power JI Project is not a debundled component of a larger project. There exist nearby wind turbines and wind power development projects but:

- The project participants of these projects are different.
- The project boundary of Virtsu III project is at minimum ca. 2 km distance of the project boundary of the closest wind power plant at the closest point. Further to this, the closest Virtsu I 1,2 MW wind farm was not implemented as a JI project.

A.5. <u>Project approval by the Parties involved</u>:
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Written approvals by the Parties involved, including the necessary authorisations, will be attached to the final PDD.

Once the draft determination report is available, the necessary request to issue a host country Letter of Approval will be made to the relevant Estonian authorities. To avoid double counting, the project has already been included in the set-aside reserve of the National Allocation Plan for 2008-12.

The investor country approval will be issued prior to submission of the PDD and Determination Report to the JI Supervisory Committee.



SECTION B. Baseline

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

Approved CDM methodology ACM0002/Version 6 (May 2006) has been applied to the project which is a consolidated baseline methodology for grid-connected electricity generation from renewable sources

The relevant applicability conditions of ACM0002 are as follows:

“Applies to electricity capacity additions from...Wind sources...”

“This methodology is not applicable to project activities that involve switching from fossil fuels to renewable energy at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site;”

“The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available”

All of these conditions are met in the case of the proposed Virtsu III wind power JI project.

More specifically, the Operating and Build Margins have been calculated on the basis of detailed electricity generation and fuel consumption data from years 2003-2005 of 19 Estonia’s oil shale, natural gas and other fossil fuels consuming as well as renewable energy plants supplying power to the grid. The below table provides an overview of the aggregate generation and fuel consumption data for these plants.

Table. Power Plants' Aggregate Data for Combined Margin

	Capacity <i>(MW)</i>	Generation			Fuel consumption for electricity production		
		<i>Net output (GWh)</i>			<i>(TJ)</i>		
	2006	2003	2004	2005	2003	2004	2005
Total fossil fuel based plants	2 699,2	9 076,4	9 193,6	9 025,8	101 866	101 283	97 682
Total RES plants	54,0	25,0	38,0	88,0	0	0	0
Imports		93,0	347,0	345,0			
Total net output	2 753,2	9 101	9 232	9 114	101 866	101 283	97 682
Gross output from plants		10159	10304	10205			
Exports		1989	2141	1953			
Total domestic consumption (incl. PP self consumption)		8077	7816	7907			

The average Operating Margin was calculated to be 1,081 tCO₂/MWh and average Build Margin was calculated to be 1,164 tCO₂/MWh. Applying default weights of the methodology of 0,75 (Operating Margin) and 0,25 (Build Margin) the Combined Margin was calculated to be 1,102 tCO₂/MWh. Please refer to the enclosed Baseline Study for more information.



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

Additionality of the project is shown using the CDM Tool for the Demonstration and Assessment of Additionality as approved by the CDM Executive Board, and as used in ACM0002. Please refer to the Baseline Study for the detailed application of the additionality tool.

Additionality of the proposed project is further supported by recent determinations of wind power JI projects in Estonia, namely the Esivere/VirtsuII Wind Power JI Project (also developed by OÜ Roheline Ring) and Viru-Nigula Wind Power JI Project.

The wind energy sector in Estonia is yet small (currently ca. 35 MW installed) but showing signs of growth. However, large financing barriers exist, and therefore only a few modern wind farms financed under the Joint Implementation schemes with the Finnish and Austrian JI/CDM programme have been constructed. The principal barrier is the low rate of return due to the low feed-in tariff. The tariff is fixed at level of EEK 0.81 or ca. € 0.052 / kWh. Further to this there exists a risk for further deterioration of the investment climate due to proposed amendments to the Estonian Electricity Market Act that would establish an annual quantitative market limitation to the wind power purchase obligation.

Given investor requirements and the risks associated with this project, a higher tariff would be required to make the project financially viable if it were not an approved JI project. This tariff is substantially higher than the feed-in tariff available during the first 12 years of operation, and the gap is even greater compared to potential prices post the 12 year period after which wind power would have to compete at the free market.

Also a recent report of the European Commission concludes that the supported price level for onshore wind power is clearly insufficient and below marginal abatement costs.²

The financial modelling and sensitivity analysis show that the financial income from sale of emission reduction units during 2008-12 improves the project IRR by ca. 2 percentage points and makes the project thus attractive for the investors to undertake.

Furthermore, it is important to point out that following a rapid reorganisation of the Estonian economy, opportunities for short-term profitable business are diminishing in Estonia. Therefore, local and foreign investors are increasingly interested in projects offering lower but at the same time stable income in the longer term, a.o. wind power projects.

a) Baseline scenario

In the current situation, over 93% of electricity is produced in thermal power plants at Narva using pulverised oil shale combustion technology. This is highly polluting energy generation due to high sulphur dioxide (10-20 g/KWh), CO₂ (1350 –1400 g /kWh) and a large amount of fly ash (12-20 g/kWh).

The baseline analysis presented in more detail in Annex 2 shows that the only credible future scenario is Scenario 2 (Upgrade and partial closure of Narva power plants), as it is the only one able to meet

² P. 28, Communication from the Commission. The support of electricity from renewable energy sources. Commission of the EC. Brussels 7.12.2005



environmental targets set out in local and EU accession legislation, is economically viable, and reflects current renovation projects underway.

This scenario includes the refurbishing of 200MW units at Eesti and Balti power stations from pulverized bed to circulating fluidized bed combustion (CFBC) technology and closing down of units 1-8 at Balti power station. At the Balti power station, the renovated units 11 and 12 will be used for normal operation, while units 9 and 10 will be used for standby. The net output of the plant will be 1481 GWh/year, as opposed to current production of 2134 GWh/year.

This follows the plan stated in the Position Paper "Acceptance of Acquis 2001, Chapter 22, Environment" as part of Estonia's accession to the EU. These upgrades are also contained in the National Fuel and Energy Development Plan, and have already commenced construction, and will allow the plants to meet necessary environmental targets.

b) Project scenario

The project scenario foresees an establishment of a 6.9 MW wind power plant at Virtsu III, Hanila municipality. The renewable electricity produced by the wind power plant will displace carbon intensive electricity produced from fossil fuel sources in the Estonian grid.

c) Emission reductions will occur due the simple fact that the Baseline scenario represents a higher emission factor than the Project scenario. Please refer to the Baseline Study in annex 2 for a more detailed analysis.

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

The project boundary is drawn simply around the physical boundary of the wind power plants (i.e. the wind turbines and generators). The project activity will reduce the equivalent electricity production on the grid.

The spatial extent of the project boundary includes the project site and all power plants connected physically to the electricity system that the project power plant is connected to. The project electricity system is the Estonian National Grid, because the power plants on that system can be dispatched without significant transmission constraints. The plants and their characteristics are presented in Annex A of the Baseline Study. In addition, the electricity system in neighbouring Russia and Latvia are considered connected electricity systems. Imports from connected electricity systems in other countries are taken as having an emission factor of 0 (zero), as per ACM0002 requirements.

Justification of the selected Project Boundary is given in ACM0002.

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

Baseline Study date: November 6 2006

Conducted by: Valdur Lahtvee and Dr Tiit Kallaste, Stockholm Environment Institute Tallinn Centre.

Tel: + 372 6276100

Several other baseline studies have been undertaken due to the development of other wind power JI projects in Estonia. Also these studies have been used for this PDD and namely the baseline study for



the Esivere/Virtsu II Wind Power JI Project under the Austrian JI/CDM Programme. The study that obtained a positive determination opinion in March 2005 by TÜV SÜD Group indicated a similar carbon emission factor for the Estonian power sector over the crediting period 2005-2012. Stockholm Environmental Institute is not considered as a project participant.

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

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

The wind farm construction will start on May 1 2007.

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

20 years, 0 months

C.3. Length of the crediting period:

Total crediting period: 5 years (2008-12)

Starting date. January 1, 2008



SECTION D. Monitoring plan

D.1. Description of monitoring plan chosen:

1. ACM0002/Version 6:Consolidated monitoring methodology for zero-emissions grid-connected electricity generation from renewable sources”

The applicability conditions for this methodology are:

Applies to electricity capacity additions from:

Run-of-river hydro power plants; hydro power projects with existing reservoirs where the volume of the reservoir is not increased;

Wind sources:

Geothermal sources;

Solar sources;

Wave and tidal sources.

2. This methodology is not applicable to project activities that involve switching from fossil fuels to renewable energy at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site;

3. The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available;”

All of these applicability criteria are met by the proposed project activity.



D.2. Data to be monitored:

Data to be collected in order to monitor emission reductions from the project, and how these data will be archived:

ID number <i>(Please use numbers to ease cross-referencing to D.2.)</i>	Data variable	Source of data	Data unit	Measured (m), calculated (c), estimated (e)	Recording frequency	Proportion of data to be monitored	How will the data be archived? (electronic/paper)	Comment
1	EG _y – Net electricity supplied to the grid	Project proponent	kWh	Measurement. Directly measured with electricity meter, and checked with sales data	Constant recording	100%	Electronic and in paper form	See below.*.

* Data will be aggregated monthly and yearly and double checked with receipt of sales, with the SCADA system as a back-up.

As there is a common substation with the planned Virtsu II wind power plant, in addition to one common meter at the 110 kV side, separate meters will also be installed at the 20 kV side of transformer in order to distinguish between the electricity and emission reduction generation of the two projects, taking also the transformer losses relative to the wind power plants' electricity generation into account.



D.3. Quality control (QC) and quality assurance (QA) procedures undertaken for data monitored:		
Data (Indicate table and ID number)	Uncertainty level of data (high/medium/low)	Explain QA/QC procedures planned for these data, or why such procedures are not necessary.
1. EG _y	The maximum allowed deviation of the meters is 0,5% (at 110 kV) and their verifications has to be carried out at minimum every eight years.	As explained above data will be directly measured with metering equipment at the connection point of Virtsu II and Virtsu III wind power plants to the Eesti Energia's grid at the 110 kV side of the transformer. Separate meters will also be installed at the 20 kV side of transformer in order to distinguish between the electricity and emission reduction generation of the two projects, taking also the transformer losses relative to the wind power plants' electricity generation into account. All equipment will be sealed, calibrated and checked periodically for accuracy. In addition, all metered data will be double checked by receipts of electricity sales, with SCADA system as back-up.
2. all other data	Low	This data is all either default data (e.g. IPCC) or from official statistics and publicly available utility and government data that has already been gathered and checked for quality. All data sources are well known and reputable.

Brief description the operational and management structure that the project operator will apply in implementing the monitoring plan:

The basic guidelines of the Monitoring Plan to be established in more detail at a later stage are as following:

The project proponent will measure only the electricity output (MP1) of the plant. All other data has been collected at the beginning of the project, and presented in the Baseline Study and this PDD.

The following management and operational system is proposed for internal audits of GHG project compliance with operational requirements, for project performance and corrective actions.

In order to ensure a successful operation of the project and the credibility and verifiability of the ERs achieved, OÜ Roheline Ring recognises that the project must have a well defined management and operational system. The management and operation of the project is the responsibility of OÜ Roheline Ring i.e. ensuring the environmental credibility of the project through accurate and systematic monitoring of the project's implementation and operation for the purpose of achieving trustworthy ERs. Independent verifiers will audit the operator and his management systems to ensure credibility and transparency of the projects reported ERs and other performance indicators.



Data handling:

The establishment of a transparent system for the collection, computation and storage of data, including adequate record keeping and data monitoring systems.

Quality assurance:

OÜ Roheline Ring's competent manager who will be in charge of and accountable for the generation of ERs including monitoring, record keeping, computation of ERs, audits and verification. He will officially sign-off on all GHG Emission worksheets.

Well-defined protocols and routine procedures as outlined in the MP:

Proper management processes and systems records must be kept by the operator as the auditors will request copies of such records to judge compliance with the required management systems. RR recognises that auditors will accept only one set of official information, and any discrepancies between the official, signed records and on-site records will be questioned.

Reporting:

OÜ Roheline Ring will prepare reports as needed for audit and verification purposes.

OÜ Roheline Ring will prepare a brief annual report which should include: information on overall project performance, emission reductions generated and verified and comparison with targets. The report will be combined with the periodic verification report.

Reporting will be provided to the verifiers and to the Estonian JI focal point.

Training:

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

Verification and commissioning:

The management and operational system and the capacity to implement this MP will be put in place before the project can start generating ERs.

Corrective Actions

OÜ Roheline Ring will periodically undertake performance reviews as part of its ongoing operation and management

Where corrective actions are required by the Estonian authorities or the verifiers, these will be acted upon within a reasonable timescale as dictated by relevant authorities.



Data collection

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

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

Tullio Liblik, OÜ Roheline Ring. OÜ Roheline Ring is also a project participant as listed in annex 1.



SECTION E. Estimation of greenhouse gas emission reductions

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

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

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

No leakage estimate is required in ACM0002 for wind power.

E.3. The sum of E.1. and E.2.:

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

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

Baseline emissions (BE) are calculated as following:

$$BE_y (tCO_2) = EG_y (MWh) \times EF_y (tCO_2/MWh)$$

EG_y – Net electricity supplied to the grid

EF_y – Emission factor of the Estonian grid

Please refer to the enclosed Baseline Study using ACM0002 methodology for detail on how the emission factor is calculated for the Estonian grid.

	2008	2009	2010	2011	2012	∑ 2008-2012
Baseline emissions (in t CO _{2e})	18 186,9	18 186,9	18 186,9	18 186,9	18 186,9	90 935

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

	2008	2009	2010	2011	2012	∑ 2008-2012
Baseline emissions = Project emissions (in t CO _{2e})	18 186,9	18 186,9	18 186,9	18 186,9	18 186,9	90 935



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

Year	Estimated <u>project</u> emissions (tonnes of CO2 equivalent)	Estimated <u>leakage</u> (tonnes of CO2 equivalent)	Estimated <u>baseline</u> emissions (tonnes of CO2 equivalent)	Estimated emission reductions (tonnes of CO2 equivalent)
Year 2008	0	0	18 186,9	18 186,9
Year 2009	0	0	18 186,9	18 186,9
Year 2010	0	0	18 186,9	18 186,9
Year 2011	0	0	18 186,9	18 186,9
Year 2012	0	0	18 186,9	18 186,9
Total (tonnes of CO2 equivalent)	0	0	90 935	90 935

SECTION F. Environmental impacts

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

In accordance with the Estonian Environmental Impact Assessment and Environmental Management System Act par. 35, which is in line with the respective EU EIA legislation, Strategic Environmental Impact Assessment is initiated for energy sector projects (that may cause considerable environmental impact) during the preparation of strategic planning documents. Hanila Municipality has thus in consultation with the Lääne Environmental Service of Ministry of Environment on September 13 considered it necessary to initiate the Strategic Environmental Impact Assessment (SEIA) for the Detailed Land Use Plan of the real estate at which the wind farm is planned.

In accordance with the programme for SEIA, it is proposed not to carry out the environmental impact assessment in full scale as environmental impact assessment has already been carried out on several occasions in connection with the nearby Virtsu I, Esivere and Virtsu II wind power developments. Please find below a summary of the main focus areas of the SEIA.

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

The SEIA for the project is carried out by an independent expert company OÜ Vetepere (EIA license KMH0068, contact person Aare Kuusik) and is expected to be completed by end of year 2006.

The environmental impact assessment aims to study especially the essential environmental impacts caused by the implementation of the project including:



- noise and shadow impacts of the wind farm
- impact on bordering Natura 2000 area (“Puhtu-Laelatu” Nature Protection Area)
- impact on fauna and flora with a special focus on birds

The main stakeholders listed in the SEIA programme include:

- residents of the Virtsu municipality
- landowners at the wind farm area
- Hanila Municipal Government
- Eesti Energia AS
- Environmental NGOs

Taken that no people live in the vicinity of the planned wind farm and on basis of preliminary information on impacts on fauna and flora, all environmental impacts are expected to be insignificant and the establishment of the wind power plant would thus not be in conflict with the Estonian planning and environmental legislation.

SECTION G. Stakeholders’ comments

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

Stakeholder comments have been invited and compiled in accordance with all local planning legislation as outlined below.

According to the Planning Act (effective since January 2003), the planning system in Estonia is four levels – National planning, County planning, (Municipal) Comprehensive planning and Detailed planning. On the one hand the planning system is hierarchical, i.e. the more Detailed Land Use Plan has to observe the more general plan. On the other hand – it is interactive, i.e. in case a more detailed plan requires modification of a more general plan, the necessary change comes into effect with enforcement of the more detailed plan.

A Detailed Land Use plan is a plan that is prepared for a smaller part of a town municipality and is the basis for building activities in the short term. The local municipality organises the production of the plan and communication with the public during the planning process. The municipality can transfer organisation and financing of detailed planning to the owner of the land under planning or to a person interested in plan preparation with conclusion of a contract. That is common practice and this is also the case with the Virtsu III wind farm where Hanila Municipal Government has authorized and entered into a contract with OÜ Roheline Ring to prepare a Detailed Land Use Plan for the establishment of the wind farm at the chosen site.

The preparation of the Detailed Land Use Plan is public. It has to be produced in cooperation with the owners of immovable property and inhabitants of the area as well as other stakeholders. Preparation of the plan includes minimum one public discussion and a two-week public display after the adoption of the plan by the local government. In addition, the plan requires approval of corresponding sectoral authorities. Any written suggestions and comments during the public display will be answered by the local municipality, which in this case will also organise a new public discussion. Possible planning disputes will be settled by the county governor. If no objections to the plan arise during the public display, the plan will be enforced by the municipal council.



Arrangement of public discussions has to be pre-announced in the newspaper selected for official announcements by local municipality. Public meetings related to environmental impact assessment and detailed land use planning can be held at the same time.

A public meeting in connection with the Detailed Land Use Plan of the Virtsu III wind power project was held on October 24 2006 and attended by 15 people representing local people, environmental party, municipal government and the project developer.

At the meeting Ants Ink from OÜ Roheline Ring presented the project and reasons why the proposed area is most suitable for an establishment of a wind power plant. The main focus areas will be noise and shadow effects. The closest house is located 980 m from the wind farm. As the site, located close to the sea, is sometimes flooded, there is a need to obtain a special permit from the Minister of Environment to reduce the zone where construction activity is prohibited. Some local people raised concerns about the impact of the wind power plant to neighbouring potential housing development. Mr. Ink promised to address all concerns while carrying out the environmental impact assessment and to answer specific questions at the coming public meetings.



Annex 1

CONTACT INFORMATION ON PROJECT PARTICIPANTS

Organisation:	Roheline Ring OÜ
Street/P.O.Box:	Tallinna
Building:	16
City:	Kuussaare
State/Region:	
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URL:	
Represented by:	Tullio Liblik
Title:	Member of the Management Board
Salutation:	Mr.
Last name:	Liblik
Middle name:	
First name:	Tullio
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Annex 2

BASELINE STUDY

Please see enclosed document “Estonian JI Project Development Baseline Study”, Stockholm Environment Institute Tallinn Centre, Tallinn, November 2006

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