

# MONITORING REPORT NO. 1

FOR PERIOD 01.09.2008-31.12.2009

## SUDENAI AND LENDIMAI WIND POWER

JOINT IMPLEMENTATION PROJECT

UNFCCC No. LT2000007

PREPARED BY:

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## 1. GENERAL INFORMATION

Project name:	Sudenai and Lendimai Wind Power Joint Implementation Project
Project location:	Sudenu and Lendimu villages in Kretingos county in Lithuania
Project owner:	<p>UAB Lariteksas (Sudenai) and UAB Vejo Elektra (Lendimai)</p> <p>UAB Lariteksas Reg. adr. Lentvario g. 15A, LT-02300 Vilnius, Lithuania Address for correspondence: Šv. Ignoto 1, 01120 Vilnius</p> <p>UAB Vejo Elektra Laisves pr. 3 LT-04215 Vilnius, Lithuania Address for correspondence: Šv. Ignoto 1, 01120 Vilnius</p>
Carbon credit purchaser:	Nordic Environment Finance Corporation, NEFCO in its capacity as Fund Manager to the Baltic Sea Region Testing Ground Facility Emission Reduction Purchase Agreement (ERPA) as of 2007-12-11
Project description:	<p>The project involves an 8 MW wind farm at Sudenai (consisting of 4 Enercon E82 2000 kW wind turbines) and a 6 MW wind farm at Lendimai (consisting of 3 Enercon E82 2000 kW wind turbines).</p> <p>GHG emission reduction is achieved via displacement of carbon intensive electricity produced from fossil fuel sources in the Lithuanian power network.</p> <p>Crediting period for emission reductions: September 1 2008 – December 31, 2012</p>
Operation during monitoring period:	During the whole monitoring period in question (2009) both Sudenai and Lendimai wind farms operated without major technical interruptions.

## 2. MONITORING METHODOLOGY

Description:	Monitoring is based on the procedures defined in the document "Sudenai and Lendimai Wind Power Joint Implementation Project Design Document. Version 01. October 27 2006", Section D "Monitoring Plan". The amount of net electricity supply to the grid from the JI project is defined as the key activity to monitor.
Grid connection and measuring meters:	<p>Data is directly measured with metering equipment at the connection point to AB Lietuvos Energetika grid at the 110 kV side of the transformer. This equipment is sealed, calibrated and checked periodically for accuracy. In addition, all metered data is double checked by receipts of electricity sales, with SCADA system as back-up.</p> <p>The wind farm connection to the Main Grid (110 kV) is established via one connection point. Totally there are 7 wind turbines. The main grid meter is connected to Main Grid SCADA and monitored remotely. The meter is backed up with backup meter.</p> <p>There are 3 20kV lines on the 20kV side of the 110/20kV transformer. 2 lines have 2 turbines connected each and 3<sup>rd</sup> line has 3 turbines connected. These lines are equipped with separate power meters. These meters are read monthly to verify if any deviation from data of the main meter exists. If it was then data from the backup meter would be read.</p> <p>Calibration is processed according to Lithuanian legislation and standards.</p> <p>Additionally each turbine has separate meters which sends data to Enercon SCADA database. The database data are used monthly to verify the production. It can be read any moment and real time as well.</p> <p>No meters have been changed and all meters functioned properly during 2009 and can therefore be properly used as basis for the calculation of achieved emission reductions.</p>

## 3. ACHIEVED EMISSION REDUCTIONS

In accordance with the PDD, the formula for calculation of achieved emission reductions is the following:





$$ER_y (tCO_2e) = EG_y (MWh) \times EF_y (tCO_2/MWh)$$

Emission reductions have been calculated in accordance with the Monitoring Plan as following:

	<u>2008</u>	<u>2009</u>
<u>Project constants</u>		
Emission factor EF <sub>y</sub> , tCO <sub>2</sub> /MWh	0,629	0,629
<u>Actual data</u>		
Net power generation EG <sub>y</sub> , kWh, Sudenai	1 112 700	15 820 720
Net power generation EG <sub>y</sub> , kWh, Lendimai	708 504	11 867 113
Annual Emission reduction, tCO <sub>2</sub> , Sudenai	699,888	9 951,233
Annual Emission reduction, tCO <sub>2</sub> , Lendimai	445,649	7 464,414
<b>Total emission reduction, tCO<sub>2</sub>e, Sudenai &amp; Lendimai</b>	<b>1146</b>	<b>17 416</b>

Sudenai & Lendimai Wind Power JI Project generated 1146 tCO<sub>2</sub>e of emission reductions during the monitoring period of year 2008 and 17333 tCO<sub>2</sub>e of emission reductions during the monitoring period of 2009. Thus, in total **18562 tCO<sub>2</sub>e during 2008-2009**.

## 1. ANNEXES

1	Annual production report of Sudenai wind farm 2008
2	Annual production report of Lendimai wind farm 2008
3	Annual production report of Sudenai wind farm 2009
4	Annual production report of Lendimai wind farm 2009
5	Monthly production reports of Sudenai wind farm 2008-2009
6	Monthly production reports of Lendimai wind farm 2008-2009

Tadas Navickas  
 Managing Director  
 UAB Vejo Elektra and UAB Lariteksas



## Annex 1. Annual production report of Sudenai wind farm, 2008

	Actual power production (kWh)*	Active power consumption (kWh)*	Net power production (kWh)
September	0	0	0
October	0	0	0
November	0	2972	-2972
December	1 117 388	1 716	1 115 672
<b>Total</b>	<b>1 117 388</b>	<b>4 688</b>	<b>1 112 700</b>

\* Data according to AB Lietuvos Energija powermeter.



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## Annex 2. Annual production report of Lendimai wind farm, 2008

	Actual power production (kWh)*	Active power consumption (kWh)*	Net power production (kWh)
September	0	0	0
October	0	0	0
November	0	9602	-9602
December	719 172	1 066	718 106
<b>Total 2008</b>	<b>719 172</b>	<b>10 668</b>	<b>708 504</b>

\* Data according to AB Lietuvos Energija powermeter.



### Annex 3. Annual production report of Sudenai wind farm, 2009

	Actual power production (kWh)*	Active power consumption (kWh)*	Net power production (kWh)
January	1 485 996	690	1 485 306
February	986 048	770	985 278
March	1 024 780	1 375	1 023 405
April	953 267	634	952 633
May	1 263 576	703	1 262 873
June	1 296 637	455	1 296 182
July	986 182	1 202	984 980
August	1 091 321	356	1 090 965
September	1 594 226	263	1 593 963
October	1 612 696	580	1 612 116
November	2 130 928	241	2 130 687
December	1 403 030	698	1 402 332
<b>Total 2009</b>	<b>15 828 687</b>	<b>7 967</b>	<b>15 820 720</b>

\* Data according to AB Lietuvos Energija powermeter.

### Annex 4. Annual production report of Lendimai wind farm, 2009

	Actual power production (kWh)*	Active power consumption (kWh)*	Net power production (kWh)
January	1 114 627	518	1 114 109
February	739 624	579	739 045
March	768 676	1 032	767 644
April	715 034	476	714 558
May	947 793	527	947 266
June	972 592	342	972 250
July	739 724	903	738 821
August	818 586	267	818 319
September	1 195 805	193	1 195 612
October	1 209 664	249	1 209 415
November	1 598 381	179	1 598 202
December	1 052 394	522	1 051 872
<b>Total 2009</b>	<b>11 872 900</b>	<b>5 787</b>	<b>11 867 113</b>

\* Data according to AB Lietuvos Energija powermeter.