

VCS 2007.1 Verification Report of the project entitled " Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II "



Voluntary Carbon Standard Version 2007.1  
Final Verification Report

Project No: **53153808/02-08/480**

Name of Verification company:	Date of the issue:
TÜV NORD CERT GmbH	2010-01-11
Report Title:	Approved by:
Bundled Wind Power Project in Tamil Nadu managed by Enercon India Limited - II	Eric Krupp
Client:	Project Title:
Enercon (India) Limited	Bundled Wind Power Project in Tamil Nadu managed by Enercon India Limited - II
Summary:	

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Enercon (India) limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the verification of the project - "Bundled Wind Power project in Tamil Nadu managed by Enercon India Limited - II", with regard to the relevant requirements of VCS 2007.1 Standard.

The purpose of this project activity is to generate electricity using renewable sources (wind) and export it to the connected state grid i.e. TNEB (Tamil Nadu state electricity Board) which is a part of Southern regional grid of India<sup>/CEA/</sup> thereby displacing the grid generated electricity and use it for captive purpose that would have been generated predominantly from fossil fuel based power generation.

A risk based approach has been followed to perform this verification. In the course of the verification (03) Corrective Action Requests (CAR) and (01) clarification request (CL) were raised and successfully closed out.

The verification is based on Validated VCS-PD<sup>/VCS-PD/</sup> under version 2007.1, FVR<sup>/FVR/</sup>, monitoring report<sup>/MR1/,/MR2/</sup>, emission reduction calculation sheet<sup>/XLS1/,/XLS2/</sup> and other supporting documents made available to the verifiers by project proponent.

Based on the above and subsequent verification, the verifiers confirm that:

The GHG emission reductions in the reported monitoring period 01/04/2006 to 07/10/2009 (inclusive both the days) is: 203,770 tCO<sub>2e</sub>.

Work carried out by:	Number of pages:
Mr. Manoj Kumar Borekar Mr. Jimmy Sah Mr. Prasad Jakkaraju Mr. Sukanta Das	21

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## 1 Introduction

### 1.1 Objective

The purpose of this verification, by independent checking of objective evidence, is as follows:

- to verify that the project is implemented as described in the Project Document;
- to confirm that the monitoring system is implemented and fully functional to generate Voluntary Emission Reductions (VERs/VCUs<sup>1</sup>) without any double counting, and
- to establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

### 1.2 Scope and Criteria

The verification of this VCS project is based on the monitoring report<sup>/MR1/,/MR2/</sup>, Final Validation report<sup>/FVR/</sup>, VCS PD<sup>/VCS-PD/</sup> and other supporting documents made available to the verifier and information collected through performing interviews during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The TÜV NORD JI/CDM CP has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

### 1.3 VCS project Description

The project under consideration is set up to produce clean power from the wind electric converters. The generated electricity is wheeled using the state transmission system for captive consumption. The Project leads to reduced greenhouse gas (GHG) emissions because it displaces electricity from fossil fuel based electricity generation plants. The project is helping in

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<sup>1</sup> As per VCS, Verified Emission Reductions (VERs) are considered to be VCUs only after successful registration in an approved VCU Registry

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bridging the demand supply gap by using wind as a source of generating electrical energy.

The project activity consists of the 45 machines of Enercon make of 800 KW each, aggregating to the capacity of 36 MW. The project considered harnessed renewable resources in the region, thereby displacing non-renewable natural resources thereby ultimately leading to sustainable economic and environmental development. Enercon (India) Ltd (“Enercon” or “EIL”) is the equipment supplier and the operations and maintenance contractor for the project

The emission reduction for the reported monitoring period is based on net electricity of 219.832 GWh supplied to TNEB grid which is connected to the Southern regional grid of India and the validated ex-ante grid emission factor (0.9269 tCO<sub>2</sub>e/MWh) <sup>/cea/,/FVR/</sup> of southern regional grid is in accordance with methodology ACM0002 version: 10 <sup>/ACM0002/</sup>. The Net electricity supplied from project activity was calculated as the difference between electricity exported to the grid and the electricity imported from the grid which are derived from the continuously measured export and import electricity meters respectively. The net electricity supplied to the grid is the basis of the emission reduction calculation.

Each meter is a two way tri-vector export-import meter installed by TNEB at the high voltage side of the step up transformer installed at the Project site. The metering is done at 22 kV bay by two-way export meter installed by TNEB. These continuous meters provide cumulative readings in kWh and were calibrated before installation by TNEB as per the TNEB guidelines confirming the regulations of the Central Electricity Authority. None of the meters have been changed during the reported monitoring vintage period <sup>/CAL/</sup>. The installed meters measure the electricity export and electricity import for each WEC of the project which are designated by unique identification no. i.e. HT SC (High Tension Service Connection) No. which was verified on-site and was found to be correct.

### 1.4 Level of assurance

The verification report is based on VCS-PD <sup>/VCS-PD/</sup>, Monitoring report <sup>/MR1/, /MR2/</sup> and Final Validation report <sup>/FVR/</sup>, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. The verification opinion is assured provided the credibility of all above.

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### 2 Methodology

The onsite visit for the project was carried out in December 2009 and the assessment of verification is carried out from December 2009 to January 2010”.

Preparations	:	2009-12-09 to 2009-02-23
On-site verification	:	2009-12-24 to 2009-12-25
(Draft) Reporting	:	2009-12-29
(Final) Reporting	:	2010-01-11

The verification consists of the following steps:

- A desk review of the VCS-PD <sup>/VCS-PD/</sup> and supporting documents with the use of the relevant sections of a customised protocol according to the VCS 2007.1 guidelines;
- A desk review of the Monitoring Report <sup>/MR1/, /MR2/</sup> and additional supporting documents which were submitted by the client. The relevant sections of the above mentioned customised protocol according to the VCS 2007.1 were used;
- Verification audit planning;
- On-Site assessment;
- Background investigation
- follow-up interviews with personnel of the project developer and
- Verification reporting (Draft Verification Report and Final Verification Report).

The criteria of this verification include the relevant rules and steps as set out in the VCS 2007.1.

### 3 Verification Findings

#### 3.1 Remaining issues, including any material discrepancy, from previous validation

The raised CARs were successfully closed during the validation of the project design. There are no remaining issues. The verification has been carried out based on the validated VCS PD<sup>/VCS PD/</sup> and FVR<sup>/FVR/</sup>.

However, during validation a forward action request was raised which is successfully closed out for this 1st periodic verification.

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Consideration of FAR<sub>VAL</sub> 1 raised during the validation process

FAR <sub>VAL</sub> 1	References	Summary of project owner response	Revised sections (as applicable)	Conclusion
<p>If the PLF of the project activity exceeds the range sensitivity analysis (PLF 26.25%) the additionality of the project will be re-assessed during every monitoring period, The VEs will be issued if the project is additional.” (Refer Annex 66,67 of EB48, 10.C (i))</p>	<p>/MR/, /FVR/</p>	<p>For the monitoring period of April 2006 to October 2009 the PLF of the project activity comes out to be in the range of 21.47% to 26.25%. which is within the sensitivity range of project additionality i.e. 26.25%), it clearly shows that project is additional for the monitoring period of April 2006 to October 2009.</p>	<p>/MR2// XLS2/</p>	<p>The PLF Calculation is checked by TUV/XLS2 / and found correct for this monitoring period. The actual PLF for the monitoring period of April 2006 to October 2009 for all the PP's falls within the sensitivity range, of project additionality i.e.</p>

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FAR <sub>VAL1</sub>	References	Summary of project owner response	Revised sections (as applicable)	Conclusion
				<p>21.47% to 26.25%. The Actual PLF assessed are described below:</p> <ol style="list-style-type: none"> <li>1. Premier Spg &amp; Wvg Mills Pvt Ltd - 24.08%</li> <li>2. Premier Fine Yarns Pvt Ltd- 23.58%</li> <li>3. Coimbatore Twisted (Premier Mills)- 24.43%</li> <li>4. Coimbatore Polytex (Premier Mills)- 23.64%</li> <li>5. Bannari Amman Spinning Mills- 24.16%</li> </ol>

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FAR <sub>VAL1</sub>	References	Summary of project owner response	Revised sections (as applicable)	Conclusion
				<p>The upper limit for the sensitivity analysis considered during the Validation was 26.25%. Thus this clearly shows that the project activity is additional for the prescribed monitoring period. Hence, FAR is closed for this 1st monitoring period. However, the additionality should be re-assessed</p>

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<b>FAR<sub>VAL1</sub></b>	<b>References</b>	<b>Summary of project owner response</b>	<b>Revised sections (as applicable)</b>	<b>Conclusion</b>
				for the subsequent verifications.

### 3.2 Project Implementation

The project activity consists of the 45 machines of Enercon make of 800 KW each, aggregating to the capacity of 36 MW. The Project considered harnessed renewable resources in the region, thereby displacing non-renewable natural resources thereby ultimately leading to sustainable economic development in the region. Enercon (India) Ltd (“Enercon” or “EIL”) is the equipment supplier and the operations and maintenance contractor for the Project

During the monitoring period, the net electricity supplied to the grid by the project activity is 219,832,788 KWh and thus the total baseline emission for this monitoring period is computed to 203,770 tCO<sub>2e</sub>.

It was verified in the course of this verification and onsite visit that the actual project activity was implemented in accordance with the VCS PD.

Nevertheless following CARs were raised and closed successfully based on revised Monitoring report.

<b>CAR 3.2.1</b>	<b>References</b>	<b>Summary of project owner response</b>	<b>Revised sections (as applicable)</b>	<b>Conclusion</b>
PP is requested to incorporate the location of WEC connected to the feeders and the respective	MR1	The table having details regarding location no and feeder has been incorporated in	MR2	During the onsite visit assessment team

CAR 3.2.1	References	Summary of project owner response	Revised sections (as applicable)	Conclusion
connected substations for the project activity in section A of the MR.		section A of the MR.		checked <sup>/I</sup> <sub>M01/</sub> the location of the WEC and connected feeder. The same is incorporated in the revised MR. Hence, CAR is closed.

### 3.3 Completeness of Monitoring

The reporting <sup>/MR2/</sup> <sup>/XLS2/</sup> is in line with the requirements of the validated monitoring plan as well as with the applied methodology ACM002 version 10<sup>/ACM002/</sup>.

The reporting procedures reflect the requirements of the monitoring plan <sup>/VCS-PD/</sup>. The monitoring parameters are recorded as per the monitoring plan.

The monthly JMR (Joint Meter Reading) provides the net export and import for each HTSC i.e. individual/grouped WECs which belongs to PP. The Net electricity supplied is calculated based on the Electricity exported and electricity imported to the grid which is monitored from the export and import meter. The exports and imports value are sourced from the JMR sheets<sup>/JMR/</sup> which is an authenticate document for the calculation of emission reduction.

None of the meters have been changed during the reported monitoring vintage. No abnormality was found in the metering system<sup>/cal/</sup>.

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Each of the meters is of same make, ie, M/s Elster Metering (P) Ltd, Daman India. The dedicated combined CTPT (Current Transformer and Potential Transformer) unit of specific rating installed at 22 KV side of the step up (110/22KV) substation provides the required signals to the respective digital continuous meters at the designated HTSC point. The multiplication factor of the individual meters is predetermined by TNEB before installation which is endorsed in the respective calibration reports.

All the CTPT units are of 0.5 % accuracy and connected with HTSC specific meter in one to one connection. All the meters were calibrated before installation by TNEB per the TNEB guidelines confirming the regulations of the Central Electricity Authority. The following table provides the details of the calibration.

S. No.	Name of Customers	HTH C No.	Commissioning Date	Main Meter No.	Calibration Date
1	Premier Spg & Wvg Mills Pvt Ltd	D47	21-Mar-07	04863734	18-Jun-09
2	Premier Spg & Wvg Mills Pvt Ltd	D49	21-Mar-07	04890022	18-Jun-09
3	Premier Spg & Wvg Mills Pvt Ltd	D52	26-Mar-07	04863759	18-Jun-09
4	Premier Spg & Wvg Mills Pvt Ltd	D54	26-Mar-07	04865534	18-Jun-09
5	Premier Spg & Wvg Mills Pvt Ltd	D79	25-Apr-07	04865507	17-Jun-09
6	Premier Spg & Wvg Mills Pvt Ltd	D80	25-Apr-07	TNB02400	17-Jun-09
7	Premier Spg & Wvg Mills Pvt Ltd	D81	25-Apr-07	04865535	18-Jun-09
8	Premier Spg & Wvg Mills Pvt Ltd	D82	9-May-07	04865504	17-Jun-09
9	Premier Spg & Wvg Mills Pvt Ltd	D83	9-May-07	04865503	17-Jun-09
10	Premier Spg & Wvg Mills Pvt Ltd	D84	11-May-07	04865505	17-Jun-09
11	Premier Fine Yarns Pvt Ltd	D26	26-Feb-07	04865399	17-Jun-09
12	Premier Fine Yarns Pvt Ltd	D27	26-Feb-07	04865401	17-Jun-09
13	Premier Fine Yarns Pvt Ltd	D28	26-Feb-07	04865402	17-Jun-09
14	Premier Fine Yarns Pvt Ltd	D29	26-Feb-07	04865403	17-Jun-09

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S. No.	Name of Customers	HTH C No.	Commissioning Date	Main Meter No.	Calibration Date
15	Premier Fine Yarns Pvt Ltd	D30	27-Feb-07	04863758	17-Jun-09
16	Premier Fine Yarns Pvt Ltd	D30	27-Feb-07	04863758	17-Jun-09
17	Premier Fine Yarns Pvt Ltd	D32	7-Mar-07	04863757	17-Jun-09
18	Premier Fine Yarns Pvt Ltd	D32	7-Mar-07	04863757	17-Jun-09
19	Premier Fine Yarns Pvt Ltd	D33	7-Mar-07	04863762	17-Jun-09
20	Premier Fine Yarns Pvt Ltd	D34	7-Mar-07	04865400	17-Jun-09
21	Coimbatore Twisted (Premier Mills)	D37	14-Mar-07	04863761	18-Jun-09
22	Coimbatore Polytex (Premier Mills)	D38	14-Mar-07	04865383	18-Jun-09
23	Coimbatore Polytex (Premier Mills)	D43	21-Mar-07	04865533	18-Jun-09
24	Coimbatore Polytex (Premier Mills)	D43	21-Mar-07	04865533	18-Jun-09
25	Coimbatore Polytex (Premier Mills)	D44	21-Mar-07	04865526	18-Jun-09
26	Coimbatore Polytex (Premier Mills)	D45	21-Mar-07	04865528	18-Jun-09
27	Coimbatore Polytex (Premier Mills)	D68	29-Mar-07	04865501	18-Jun-09
28	Coimbatore Polytex (Premier Mills)	D73	30-Mar-07	04959599	18-Jun-09
29	Coimbatore Polytex (Premier Mills)	D74	30-Mar-07	04865530	18-Jun-09
30	Coimbatore Polytex (Premier Mills)	D75	30-Mar-07	04865531	18-Jun-09
31	Coimbatore Polytex (Premier Mills)	D78	16-Apr-07	04865500	18-Jun-09
32	Bannari Amman Spinning Mills	1067	17-Jan-06	04721986	22-Jun-09
33	Bannari Amman Spinning Mills	1068	17-Jan-06	TNB02327	22-Jun-09
34	Bannari Amman Spinning Mills	1069	17-Jan-06	04725673	22-Jun-09
35	Bannari Amman Spinning Mills	1070	17-Jan-06	04725674	22-Jun-09
36	Bannari Amman Spinning Mills	1070	17-Jan-06	04725674	22-Jun-09
37	Bannari Amman Spinning Mills	1071	17-Jan-06	02373937	22-Jun-09

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S. No.	Name of Customers	HTH C No.	Commissioning Date	Main Meter No.	Calibration Date
38	Bannari Amman Spinning Mills	1072	17-Jan-06	04721860	22-Jun-09
39	Bannari Amman Spinning Mills	1072	17-Jan-06	04721860	22-Jun-09
40	Bannari Amman Spinning Mills	1073	17-Jan-06	04721859	22-Jun-09
41	Bannari Amman Spinning Mills	1077	1-Feb-06	04721982	22-Jun-09
42	Bannari Amman Spinning Mills	1077	1-Feb-06	04721982	22-Jun-09
43	Bannari Amman Spinning Mills	1086	8-Feb-06	04725696	22-Jun-09
44	Bannari Amman Spinning Mills	1106	8-Mar-06	04726631	22-Jun-09
45	Bannari Amman Spinning Mills	1106	8-Mar-06	04726631	22-Jun-09

### 3.4 Accuracy of Emission Reduction Calculations

The value of the emission reductions depends on the net electricity supplied by the project activity.

The baseline emissions reductions are based on the net electricity supplied to the grid by the WECs. The project emissions are zero as there is no auxiliary firing taking place. Also, as per the methodology the leakage emission need not be calculated for this project activity. Therefore the baseline emission equals the Emission Reductions.

The total net electricity supplied by WECs during the monitoring period is 219,832,788 KWh. The baseline emission factor has been fixed ex-ante as 0.9269 tCO<sub>2</sub>/MWh based on the CEA data for Southern Regional Grid<sup>/CEA/</sup>.

Based on the net electricity supplied and the emission factor the baseline emissions for the present monitoring period are computed to be 203,770 tCO<sub>2e</sub>. All the figures as per the monitoring plan were cross-checked by the verification team against basic monitored data /XLS2/ and the calculations were found to be correct”

Nevertheless following CAR and CR were raised and closed successfully based on revised MR and ER calculation sheet.

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<b>CAR 3.4.1</b>	<b>References</b>	<b>Summary of project owner response</b>	<b>Revised sections (as applicable)</b>	<b>Conclusion</b>
During the site visit and subsequent document review with the JMR sheets mismatch of electricity export and import was observed for Coimbatore Polytex (Premier Mills) during the month of June 2008 to Oct 2009. In addition to this, mismatch was also observed for the month of December 2007, June 2007 for the other Project participants. Correction is sought in the entire emission reduction calculation sheet for the monitoring period.	/XLS1/	Corrections have been made for the above mentioned customers in the emission reduction sheet as well as in the MR.	/XLS2/	The required correction is done in the revised ER sheet. Hence, CAR is closed.

<b>CL3.4.1</b>	<b>References</b>	<b>Summary of project owner response</b>	<b>Revised sections (as applicable)</b>	<b>Conclusion</b>
The billing period for the WEC having HTSC number D30, D32 And D43 is 10th of every month. However, during the site visit and the	/XLS1/	For HTSC number 30, 32, and 43 the TNEB persons took the random reading in the month of April 2008 and June	/XLS2/	The justification is acceptable to the verification

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CL3.4.1	References	Summary of project owner response	Revised sections (as applicable)	Conclusion
<p>subsequent document review it was found that the export and import value for above WEC is inconsistent for the month of April 2008 and June 2007 respectively with respect to the billing period. Clarification is sought in this regard.</p>		<p>2007 for testing the accuracy of meters, that is the only reason the meter reading for the month is in two slots.</p>		<p>team and is cross checked with the JMR sheet and found correct. Hence, CL is closed.</p>

### 3.5 Quality of Evidence to Determine Emission Reductions

Proper data management inclusive of data acquisition and aggregation, data management system is being followed for the project activity.

All records needed for monitoring are archived in line with the requirements of the registered monitoring plan /VCS-PD/. No significant, lack of evidence and missing data were detected during on-site verification.

It is evident from the monitoring data that the monitoring system ensures for continuous (except some routine breakdowns or outage) operation.

All internal data are subjected to QA/QC measures. Enercon (India) Limited (EIL) is ISO 9001:2000<sup>/ISO/</sup> certified and has proper procedures for data handling which is cross checked by the verification team to ensure that the QA/QC procedure is followed as per the ISO standard.

The monitoring personnel at site are well trained and follow reproducible routines. The training records <sup>/TRA/</sup> of

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the plant personals have been cross checked and found OK. Thus, they are competent to carry out the relevant tasks with sufficient accuracy. All necessary monitored and measured raw data were checked during on-site verification (Ref Annex-2 of this report). The electricity exported to the grid and imported from the grid are the basic monitoring parameters. The net electricity is the difference between the export and import values which is cross checked by the verification team with JMR sheets and the commercial invoices, found OK.

Nevertheless following CAR was raised during the verification process and was closed successfully.

CAR3.5.1	References	Summary of project owner response	Revised sections (as applicable)	Conclusion
PP needs to detail out all the major break down and maintenance records for the entire monitoring period in section B of the MR.	/MR1/	There is no major breakdown occurred during the monitoring period of April 2006 to October 2009, however regular maintenance has been carried out. Details have been made in section B of the MR.	/MR2/	The breakdown details are cross checked by the verification team. There was no major breakdown except for the scheduled maintenance which is correct and has been detailed in the MR. Hence, CAR is

CAR3.5.1	References	Summary of project owner response	Revised sections (as applicable)	Conclusion
				closed.

### 3.6 Management and Operational System

The allocation of responsibilities is documented in a written form and is followed as described in the VCS-PD. Routines for the archiving of data are defined and documented. Calculations laid down in the monitoring report are in line with VCS-PD.

The overall authority of the project site belongs to EPC contractor EIL. The Joint meter readings are noted in presence of officials from plant personnel and the TNEB officials.

The data archiving of gross generation is directly measured from SCADA system. The monthly export and import values are maintained in monthly JMR sheets, which are signed by both the parties and documented which are subject to QA/QC measures. All monitored data are archived in Physical and Electronic form. The data will be kept for the whole crediting period and additional 2 years as given in the registered PD.

## 4 Verification conclusion

The scope of this verification covers the determination of voluntary greenhouse gas emission reductions generated by the above mentioned project. The verification is based on the registered VCS PD<sup>/VCS-PD/</sup>, Final validation report<sup>/FVR/</sup>, monitoring report<sup>/MR1/, /MR2/</sup>, supporting emission reduction calculation sheet<sup>/XLS1/, /XLS2/</sup> and other supporting documents made available to the verifiers by the project proponent.

As a result of the verification, the verifier confirms that:

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- All operations of the project are implemented and installed as planned and described in the project document<sup>/ISO/,/CAL/</sup>. The installed equipment essential for generating emission reductions runs reliable.
- The monitoring plan is in accordance with the applied approved CDM methodology.
- The installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- The monitoring system is in place and functional. The project has generated GHG emission reduction and the emission reduction from the project activity is real, credible and long term for the whole crediting period<sup>/JMR/, /INV/</sup>.
- GHG emission reductions are calculated without any material misstatements in a conservative and appropriate manner.

All the documents checked during on-site visit and verification process will be kept confidential and will not be disclosed at any time other than the project proponent consent as required by VCSA.

Monitoring period: 01/04/2006 to 07/10/2009 (inclusive both days).

Verified emission reductions generated in the above mentioned monitoring period:

Emission reductions	CO2 [tCO2]	CH4 [t CH4]	N2O [t N2O]	HFCs [t HFC]	PFCs [t PFC]	SF6 [t SF6]	Sum [tCO2e]
01/04/2006 to 07/10/2009	203,770	-	-	-	-	-	203,770
<b>TOTAL:</b>	<b>203,770</b>						<b>203,770</b>

Project emissions	00	t CO2 equivalents
Leakage emissions	00	t CO2 equivalents
Baseline emissions	203,770	t CO2 equivalents
Emission reductions	203,770	t CO2 equivalents

Break up of the emission reduction for the present monitoring period.

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<b>Year</b>	<b>Emission Reductions (tCO<sub>2</sub>e/year)</b>
April 2006 to December 2006	15,785
January 2007 to December 2007	61,078
January 2008 to December 2008	59,007
January 2009 to October 2009	67,900
<b>Total VCU's for the monitoring period</b>	<b>203,770</b>



Manoj kumar Borekar  
Verification Team Leader  
Mumbai, 2010-01-11



Eric Krupp  
Final approval  
Essen, 2010-01-11

Annexure 1:

**Abbreviations**

CAR	Corrective Action Request
CEA	Central Electricity Authority
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
CTPT	Current Transformer and Potential Transformer
CR	Clarification Request
ER	Emission Reduction
FAR	Forward Action request
GHG	Greenhouse gas(es)
ISO	International Standardisation Organisation
kWh	Kilowatt hour
MR	Monitoring Report
MP	Monitoring Plan
MW	Megawatt
MWh	Megawatt Hours
PP	Project Participant
QA/QC	Quality Assurance / Quality Control
TNEB	Tamilnadu State Electricity Borad.
VCS-PD	VCS PD validated under VCS 2007.1
FVR	Final Validation report based on VCS PD 2007.1 Version.
VCU	Voluntary Carbon Units
VER	Voluntary Emission Reduction

Annexure 2:

**Table 1: Documents referred during the course of verification:**

Reference	Documents
/BR/	Breakdown / Annual maintenance record covering the monitoring period, i.e. 01/4/2006 to 7/10/2009 (inclusive of both days).
/CAL/	Calibration certificates for the Export-Import meter installed at the project site for the project entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II for the monitoring period 01/4/2006 to 7/10/2009 (inclusive of both days).
/GHG/	Certificate that the project is not rejected under other GHG programs.
/ISO/	Copy of ISO certificate confirming to ISO 9001:2000 standards.
/INV/	Invoices raised to TNEB by Enercon (India) Limited for the project entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II for the monitoring period 01/4/2006 to 7/10/2009 (inclusive of both days).
/JMR/	JMR sheets for the project activity entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II for the monitoring period 01/4/2006 to 7/10/2009 (inclusive of both days).
/LA/	Layout of the project site, describing the metering positions.
/MR1/	Draft MR for the project entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II for the monitoring period 01/4/2006 to 7/10/2009 (inclusive of both days). Version 1 dated 09/12/2009 which forms the basis for verification.
/MR2/	Final MR for the project entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II for the monitoring period 01/4/2006 to

VCS 2007.1 Verification Report for the project entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II”

Reference	Documents
	7/10/2009 (inclusive of both days) version 2 dated 08/01/2010 which forms the basis of TUV NORD certification report.
/O&M/	Operation and maintenance contract, evidence.
/RD/	Declarations by the project proponents stating no intention of creating and trading of another form of environmental credits out of VERs would be created from this given project (Cp para 1.13 of VCS PD template)
/SC/	Statutory Clearances: Commissioning report of all the wind energy generators connected to the state grid of Tamil Nadu related to the project activity entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II for the monitoring period 01/4/2006 to 7/10/2009 (inclusive of both days)
/TS/	Technical specification of the all the WEC provided by the manufacturer.
/TRA/	Training and Maintenance record/certificates
/SLD/	Single line diagram for WEC.
/XLS1/	Supporting Excel sheets for calculation of emission reduction related to MR1
/XLS2/	Supporting Excel sheets for calculation of emission reduction related to MR2

**Table 2: Background investigation and assessment documents**

Reference	Document
/ACM002/	ACM 0002 Version 10: “Approved Consolidated baseline methodology for grid-connected electricity generation from renewable sources”.
/VCS-PD/	Final Project Document entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II validated under VCS 2007.1 version.

VCS 2007.1 Verification Report for the project entitled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II”

Reference	Document
/FVR/	Final Validation report for the project titled “Bundled Wind Power Project in Tamilnadu managed by Enercon India Limited-II dated 10/11/2009 validated under VCS Version 2007.1.
/VCS/	Voluntary Carbon Standard 2007.1
/VVM/	CDM Validation and Verification Manual Version 1.1

**Table 3: Websites used**

Reference	Link	Organisation
/CEA/	www.cea.nic.in	Central Electricity Authority
/UNFCCC/	http://cdm.unfccc.int	United Nation framework for convention and climate change
/VCS/	http://www.v-c-s.org/	Voluntary carbon standard

**Table 4: Interviewed Persons**

Reference		Name	Organisation / Function
/IM01/	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Himanshu Bhattnagar	CDM-EIL-Corporate
/IM01/	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Rohit Joshi	CDM-EIL-Corporate
/IM01/	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Anushree Mishra	CDM-EIL-Corporate