



# VERIFICATION REPORT WIND WORLD (INDIA) LIMITED

## VERIFICATION OF THE ENERCON WIND FARMS IN KARNATAKA BUNDLED PROJECT - 30.40 MW

REPORT No.BVC/INDIA -VR/648.49/2014

REVISION No. 01


BUREAU VERITAS CERTIFICATION

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## VERIFICATION REPORT

<b>Date of first issue:</b> 27/09/2014	<b>Organizational unit:</b> Bureau Veritas Certification Holding SAS
<b>Client:</b> Wind World (India) Limited	<b>Client ref.:</b> Mr. Yogesh Mehra
<b>Summary:</b> <p>Bureau Veritas Certification has conducted the 4<sup>th</sup> periodic verification of <b><u>"Enercon Wind Farms in Karnataka Bundled Project - 30.40 MW"</u></b>, CDM Registration Reference Number 1291, owned by Wind World (India) Limited, which is located in Chitradurga &amp; Gadag District of Karnataka and applying the methodology ACM0002, Version 6.0, on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.</p> <p>The verification scope is defined as an independent and objective review and ex-post determination of the monitored GHG emission reductions, and consisted of the following three phases: i) desk review of the project design, the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report &amp; Opinion, was conducted using Bureau Veritas Certification internal procedures.</p> <p>In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in the approved revised project design documents. Installed equipments being essential for generating emission reduction run reliably and are calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.</p> <p>The GHG emission reductions are calculated without material misstatements, and the emission reductions verified totalize 69,405 tons of CO<sub>2</sub>e for the monitoring period.</p> <p>Our opinion relates to the projects' GHG emissions and resulting GHG emission reductions reported and related to the valid and registered project baseline, approved revised monitoring plan and its associated documents.</p> <p>Reporting period: 01/10/2012 to 31/03/2014  Baseline emissions: 69,405 t CO<sub>2</sub> equivalents.  Project emissions: 0 t CO<sub>2</sub> equivalents.  Leakage emissions: 0 t CO<sub>2</sub> equivalents.  Emission Reductions: 69,405 t CO<sub>2</sub> equivalents.</p>	

<b>Report No.:</b> BVC-India/VR/648.49/2014	<b>Subject Group:</b> CDM
<b>Project title:</b> Enercon Wind Farms in Karnataka Bundled Project - 30.40 MW	
<b>Work carried out by:</b> Mr. Anurag Juyal - Team Leader	
<b>Internal Technical Review carried out by:</b>  Mr. Sanjay Patankar – Internal Technical Review	
<b>Date of this revision:</b> 03/11/2014	<b>Rev. No.:</b> 01
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**Indexing terms****Work approved by:**Ms. Anna Kalacheva 
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## Abbreviations

CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CL	Clarification Request
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
DOE	Designated Operational Entity
DRR	Daily Reading Record
ETN	Electricity Transaction Note
FAR	Forward Action Request
GHG	Green House Gas(es)
MoV	Means of Verification
MP	Monitoring Plan
MR	Monitoring Report
MRR	Monthly Reading Record
PDD	Project Design Document
PLF	Plant Load Factor
PP	Project Participant
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard



<b>Table of Contents</b>	<b>Page</b>
1. INTRODUCTION .....	5
1.1. Objective	5
1.2. Scope	5
1.3. GHG Project Description	6
1.4. Verification Team	7
2. METHODOLOGY .....	8
2.1. Review of Documents	8
2.2. Follow-up Interviews	8
2.3. Resolution of Clarification, Corrective and Forward Action Requests	9
2.4. Internal Technical Review	10
3. VERIFICATION CONCLUSIONS.....	10
3.1. Remaining issues from validation or previous verification (213)	10
3.2. Compliance of the project implementation with the registered project design document (228)	11
3.3. Compliance of the monitoring plan with the monitoring methodology including applicable tool(s) (232)	13
3.4. Compliance of monitoring activities with the monitoring plan (235-236)	14
3.5. Compliance with the calibration frequency requirements for measuring instruments (243)	17
3.6. Assessment of data and calculation of emission reductions (246)	21
4. VERIFICATION OPINION.....	24
5. REFERENCES .....	25
6. CURRICULA VITAE OF THE DOE'S VERIFICATION TEAM MEMBERS .....	26
APPENDIX A: CDM PROJECT VERIFICATION PROTOCOL...	



## 1. INTRODUCTION

Wind World (India) Limited has commissioned Bureau Veritas Certification to verify the emissions reductions of its CDM project **"Enercon Wind Farms in Karnataka Bundled Project - 30.40 MW"**, (hereafter called "the project") located at Chitradurga and Gadag District, Karnataka State in India.

This report summarizes the findings of the verification of the Project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

### 1.1. Objective

The objective of CDM verification is to conduct a thorough, independent assessment of the registered project activities.

In carrying out its verification work, the DOE shall ensure that the project activity complies with the requirements of paragraph 62 of the CDM modalities and procedures. In particular, this assessment shall:

- (a) Ensure that the project activity has been implemented and operated as per the registered PDD or any approved revised PDD, and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- (b) Ensure that the monitoring report and other supporting documents provided are complete in accordance with latest applicable version of the completeness checklist for requests for issuance of CERs, verifiable, and in accordance with applicable CDM requirements;
- (c) Ensure that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan or any revised approved monitoring plan, and the approved methodology including applicable tool(s);
- (d) Evaluate the data recorded and stored as per the monitoring methodology including applicable tool(s).

### 1.2. Scope

The verification scope is defined as an independent and objective review and ex-post determination of the monitored GHG emission reductions. The verification is based on the validated and registered project design document, the monitoring report, emission reduction calculation spreadsheet, and supporting documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The verification is not meant to provide any consulting service towards the PPs. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

### 1.3. GHG Project Description

The project activity comprises of installation of 38 (E-53) WECs of capacity 800 kW each. The cumulative capacity of the project activity is 30.40 MW.

The installations are done by a set of 18 investors. The entire electricity generated from the registered project activity is exported to the state grid with a firm PPA in place.

The annual estimated emission reductions are 65,774 tCO<sub>2</sub>e.

Project title:	"Enercon Wind Farms in Karnataka Bundled Project - 30.40 MW"
UNFCCC ref number:	1291
Registration Date:	18/03/2010
Crediting Period:	18/03/2010- 17/03/2020 (fixed)
Monitoring Period:	01/10/2012- 31/03/2014
Project Participants:	Wind World (India) Limited
Methodologies used	ACM0002 version 6.0
Location of the Project:	Gadag & Chitradurga District of Karnataka
Geo coordinates:	Geo coordinates of the WECs are provided in Section A.2 of MR.
UNFCCC view page:	<a href="http://cdm.unfccc.int/Projects/DB/SGS-UKL1187092432.51/view">http://cdm.unfccc.int/Projects/DB/SGS-UKL1187092432.51/view</a>

#### [Post Registration Changes]

#### **Following post-registration changes have been applied in the project activity-**

##### **(1) Permanent changes from registered monitoring plan or applied methodology**

A request for approval of permanent change from the registered monitoring plan as described in the registered PDD has been submitted prior to the submission of the request for issuance and approved by the Board on 21/07/2011.

The details regarding the post-registration changes can be found in the validation opinion on revision in monitoring plan.

The changes were with respect to changes in monitoring plan which was more transparently described in the revised monitoring plan.

##### **(2) Changes to project design of registered project activity**

###### **(a) Previously approved**

The ownership of one WEC was transferred from "RK Marbles" to Power Link System Private Limited". The same was corrected in the revised PDD Version 6.0 dated 16/04/2011 which was approved by the board on 16/06/2011.

###### **(b) During current verification**

(1) Due to the demise of Sri Balasaheb Ladkat, the ownership of WECs owned by him has been changed to his son Sameer Ladkat for a commissioned capacity of 1.6 MW (bearing Location No. 59 & 69, Unique Identification No. BMLGH2-01, BMLGH2-02). Revised PDD reflecting this



change was not submitted and hence CAR 1 was raised. Subsequently revised PDD version 7.0 dated 19/08/2014 was submitted and hence CAR 1 was closed.

(2) The verification team noted that name of Enercon (India) Ltd. has been changed to Wind World (India) Ltd. effective from 01/01/2013 and the PP submitted revised MoC in reference to the same to UNFCCC dated 08/10/2013. The UNFCCC webpage of the project activity also reflects the name of project participant as M/s Wind World (India) Ltd.

The verification team also noted that the participant of M/s Japan Carbon Finance was also voluntarily withdrawn through revised MoC dated 17/06/2013.

The UNFCCC webpage of the project activity also reflects the status of participation of M/s Japan Carbon Finance as "withdrawn".

The above will be submitted as a post-registration change along with the Issuance Request.

The verification team is of the opinion that the above change do not affects the following -

- (a) The applicability and application of the applied methodology under which the project activity has been registered
- (b) The additionality of the project activity.
- (c) The scale of the project activity.

Hence prior approval is not required from board.

The project activity involves supply, erection, commissioning and operation of 38 (E-53) WECs (800 kW). The WECs generates 3-phase power at 400V, which is stepped up to 33 KV. The project activity can operate in the frequency range of 47.5–51.5 Hz and in the voltage range of 400 V  $\pm$  12.5%.

*The verification team confirms that there have been no modifications or alterations to the project activity during this monitoring period.*

#### 1.4. Verification Team

The assessment team and internal technical reviewer team consist of the following personnel:

FUNCTION	NAME	TA 1.2	TA X.X	TASK PERFORMED*
Team Leader	Mr. Anurag Juyal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input type="checkbox"/> RI <input type="checkbox"/> TR
Technical Specialist	N.A.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> DR <input checked="" type="checkbox"/> SV <input type="checkbox"/> RI <input type="checkbox"/> TR
Internal Technical Reviewer (ITR)	Mr. Sanjay Patankar	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> DR <input type="checkbox"/> SV <input type="checkbox"/> RI <input checked="" type="checkbox"/> TR
Report approval	Ms. Anna Kalacheva	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> DR <input type="checkbox"/> SV <input checked="" type="checkbox"/> RI <input type="checkbox"/> TR

\*DR = Document Review; SV = Site Visit; RI = Report issuance; TR = Internal Technical Review



## 2. METHODOLOGY

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a verification protocol was customized for the project, according to the version 07.0 of the Clean Development Mechanism Validation and Verification Standard, issued by CDM Executive Board after its 79<sup>th</sup> meeting on Ref/1/. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

- It organizes, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent verification process where the verifier will document how a particular requirement has been verified and the result of the verification.

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

### 2.1. Review of Documents

The assessment of the project documentation provided by the project participant is based upon both quantitative and qualitative information on emission reductions. Quantitative information comprises the reported numbers in the monitoring report (MR) version 2 dated 27/09/2014 (/2/) and emission reduction calculation spreadsheet (/3/). Qualitative information comprises information on internal management controls, calculation procedures, procedures for transfer of data, frequency of emissions reports, and review and internal audit of calculations.

The monitoring report version 01 submitted by the project participant was also web hosted on the UNFCCC-CDM web site on 25/06/2014 and thus, was available in the public domain.

In addition to the monitoring documentation provided by the project participants, the DOE reviews:

- (a) The approved revised PDD, revised PDD submitted during current verification (/4/) the approved revised monitoring plan and changes from the registered PDD, and the corresponding validation opinion.
- (b) The validation report
- (c) The applied monitoring methodology (/5/);
- (d) Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board
- (e) Other information and references relevant to the project activity's resulting emission reductions (e.g. IPCC reports, laboratory analysis or national regulations).

### 2.2. Follow-up Interviews

On 24/07/2014, Bureau Veritas Certification conducted the site visit to confirm selected information and to discuss issues identified in the document review. Representatives of Wind World (India) Limited were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Wind World (India) Limited	<ul style="list-style-type: none"> <li>➤ Project Design and implementation</li> <li>➤ Technical equipment, calibration and operation</li> </ul>



	<ul style="list-style-type: none"> <li>➤ Monitoring Plan and management procedures</li> <li>➤ Monitoring data</li> <li>➤ Data uncertainty and residual risks (QA/QC)</li> <li>➤ GHG Calculation</li> <li>➤ Environmental Impacts</li> <li>➤ Compliance with National Laws and Regulations</li> </ul>
Wind World (India) Limited	<ul style="list-style-type: none"> <li>➤ Monitoring Plan</li> <li>➤ Monitored data and Monitoring Report</li> <li>➤ GHG Calculations</li> </ul>
Wind World (India) Limited (O & M contractor)	<ul style="list-style-type: none"> <li>➤ Metering System at the site</li> <li>➤ Technical Equipment and operation</li> <li>➤ Monitoring</li> <li>➤ Data Recording and archiving</li> <li>➤ Calibration of measuring equipments</li> <li>➤ Data uncertainty and residual risks</li> </ul>

### 2.3. Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification is to resolve issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions prior to Bureau Veritas Certification's positive conclusion on the GHG emission reduction calculation.

Findings established during the verification can either be seen as a non-fulfillment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

A Corrective Action Request (CAR) is raised, if one of the following situations occurs:

- (a) Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- (b) Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- (c) Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- (d) Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

A Clarification Request (CL) is raised, if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

A Forward Action Request (FAR) is raised, for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.



## 2.4. Internal Technical Review

The verification report underwent an Internal Technical Review (ITR) before requesting issuance of CERs for the project activity.

The ITR is an independent process performed to examine thoroughly that the process of verification has been carried out in conformance with the requirements of the verification scheme as well as internal Bureau Veritas Certification procedures.

The Team Leader provides a copy of the verification report to the reviewer, including any necessary verification documentation. The reviewer reviews the submitted documentation for conformance with the verification scheme. This will be a comprehensive review of all documentation generated during the verification process.

When performing an Internal Technical Review, the reviewer ensures that:

- The verification activity has been performed by the team by exercising utmost diligence and complete adherence to the CDM rules and requirements.
- The review encompasses all aspects related to the project which includes project design, baseline, additionality, monitoring plans and emission reduction calculations, internal quality assurance systems of the project participant as well as the project activity, review of the stakeholder comments and responses, closure of CARs, CLs and FARs during the verification exercise, review of sample documents.

The reviewer may raise Clarification Requests to the verification team and discusses these matters with Team Leader.

After the agreement of the responses on the Clarification Requests from the verification team as well as the PP(s), the finalized verification report is accepted for further processing such as uploading via the UNFCCC interface.

## 3. VERIFICATION CONCLUSIONS

In the following sections, the conclusions of the verification are stated.

The findings from the desk review of the original monitoring documents and the findings from interviews during the follow up visit are described in the Verification Protocol in Appendix A.

The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 05 CAR(s), 03 CL(s) and 00 FAR(s).

The CARs, CLs and FARs were closed based on adequate responses from the Project Participant(s) which meet the applicable requirements. They have been reassessed before their formal acceptance and closure.

The number between brackets at the end of each section corresponds to the VVS paragraph.

### 3.1. Remaining issues from validation or previous verification (258)

All CARs and CLs raised were successfully closed during the validation and previous verification stage and no remaining issues were left.

### 3.2. Compliance of the project implementation with the registered project design document (273)

#### Implementation status of project activity

The project activity involves supply, erection, commissioning and operation of 38 (E-53) WECs (800 kW) leading to a cumulative capacity of the project activity as 30.40 MW. The WECs under the project activity were commissioned between 29/03/2006 and 29/12/2006.

All the equipments as described in the approved revised PDD have been installed at the project site. The project activity does not involve any phase wise implementation.

#### Actual operation of the CDM project activity

During the site visit on 24/07/2014, it was observed that all the WEC's were operating and supplying electricity to the southern regional grid in accordance with the approved revised PDD. The location details of the project activity are tabulated below:

Sr. No.	Project Owner	Unique Identification No.	Loc. No.	Commissioning Date
1	Enercon Wind Farms (Chitradurga) Ltd.	EWCLA-01	1	06/05/2006
		EWCLA-02	2	06/05/2006
		EWCLA-03	3	06/05/2006
		EWCLA-04	4	06/05/2006
		EWCLA-05	5	06/05/2006
		EWCLA-06	6	06/05/2006
		EWCLA-07	7	31/03/2006
		EWCLA-08	8	31/03/2006
		EWCLA-09	9	31/03/2006
		EWCLA-10	10	31/03/2006
		EWCLA-11	11	31/03/2006
2	Panama Business Centre	PBCGH2-01	65	31/03/2006
		PBCGH2-02	66	31/03/2006
3	Sameer Ladkat	BMLGH2-01	67	31/03/2006
		BMLGH2-02	68	31/03/2006
4	Elpro International	EILGH2-01	59	31/03/2006
5	Gautam Ladkat	GLGH2-01	69	31/03/2006
6	Panama Infrastructure	PIPPGH2-01	43	31/03/2006
		PIPPGH2-02	44	31/03/2006
7	Sameer Ladkat	SLGH2-01	45	31/03/2006
8	Steelfab Offshore	SFOGH2-01	71	31/03/2006
9	MK Agrotech Private Ltd.	MKAGH2-01	61	31/03/2006
		MKAGH2-02	62	31/03/2006
10	Srinivas Sirigeri	SSHD-01	7	29/03/2006
11	Dempo Industries	DIPLHD-01	6	29/03/2006
12	Desai Brothers	DBLHD-01	1	29/03/2006
13	Dewanchand Ramsaran	DRGH2-01	72	31/03/2006
14	Abhilash Garments & Estates (P) Ltd.	AGEGA-01	11	29/12/2006

## VERIFICATION REPORT

15	Prasad Global Solutions	PGSGA-01	1	29/12/2006
		PGSGA-02	17	29/12/2006
16	Gangadhar Narsingdas Agarwal	GNAGA-01	6	29/12/2006
		GNAGA-02	7	29/12/2006
		GNAGA-03	8	29/12/2006
		GNAGA-04	12	29/12/2006
		GNAGA-05	13	29/12/2006
17	Siddaganga Oil Extractions Ltd.	SOEGA-01	14	31/03/2006
		SOEGA-02	15	31/03/2006
18	Power Link System Private Limited	PLSHD-01	5	29/03/2006

The verification team based on the physical verification of site and documentary evidence is able to conclude that the specification and the rated capacity of the project activity has remained the same. The verification team confirms that there is no change in the scale of project activity.

The supply of electricity to the southern grid is measured by tri-vector energy meters installed at 33 KV metering location for each investor (referred as WEC metering location from herein). The electricity exported to and imported from the grid is recorded at WEC metering location, bearing unique RR nos. Electricity export and import is measured at each WEC metering location through energy meters (main and check).

Apart from the readings taken at WEC metering location, the electricity export readings are also taken at the grid interconnection point or state-utility substation through bulk meters<sup>1</sup>. All the project and non-project WECs are connected to the following meters at substation-

Sr. No.	Name of Customer	Capacity (MW)	Wind World Sub-station	State Utility Sub-station
1	Enercon Wind Farms (Chitradurga) Ltd.	8.8	Wind World Sub-station at Imangala	Aiamangala, 66/11 kV KPTCL sub-station
2	Steelfab Offshore	0.8	GIM-II Sub-station at Gownalli	Hiriyur, 220/66/11 kV KPTCL sub-station
3	Dewanchand Ramsaran	0.8		
4	Elpro International	0.8		
5	Gautam Ladkat	0.8		
6	Sameer Ladkat	0.8		
7	Panama Business Centre	1.6		
8	Sameer Ladkat	1.6		
9	Panama Infrastructure	1.6		
10	MK Agrotech Private Ltd.	1.6	EP-II Sub-station at Nandana Hosuru	Ramagiri, 66/11 kV KPTCL substation
11	Srinivas Sirigeri	0.8		
12	Dempo Industries	0.8		
13	Power Link Systems Pvt. Ltd.	0.8		
14	Desai Brothers	0.8	Gadag Sub-station at Banikoppa	Dambal, 110/33/11 kV KPTCL sub-station.
15	Siddganga Oil Extraction	1.6		
16	Abhilash Garments	0.8		
17	Prasad Global Solution	1.6		
18	Gangadhar Narsingdas Agarwal	4.0		

<sup>1</sup> This included electricity export/import by project activity as well as non-project WECs



Since the electricity export recorded at the substation represent the cumulative electricity exported by the entire wind farm (including Non-project WECs), hence based on the two readings taken at WEC metering location and substation respectively, state electricity utility viz. State Utility prepares a monthly statement/B-form of electricity supplied by each investor after accounting for the transmission loss and import of electricity<sup>2</sup> by each WECs of each investor.

The verification team cross-checked all the Form B statements (Ref /6/) issued by State Utility, invoices raised by PP (Ref /7/) and sales receipt<sup>3</sup> (Ref /8/) and confirms that the generated electricity has been sold to the grid and not used for any other purpose throughout the current monitoring period.

Through the site visit, document review and from the Form B statements, the verification team also confirms that there have been no changes in effective output capacity of the project activity. Information provided in the monitoring report is in accordance with that stated in the approved revised PDD. Further analysis of monitored parameters as reported in the MR compared to those estimated in the PDD is explained in section 3.4 of this report.

#### **[Management and Operation]**

The PP has operated the Project as per the approved revised PDD. The monitoring organization has been set up and all monitoring staffs have been trained. Meter reading records of all the meters are based on continuously measurement and monthly recorded by the PP. The State Utility issues the Form B to the PP every month to confirm the electricity exported to and imported from the grid.

✌ Corresponding to the paragraph 273 of VVS version 07.0, Bureau Veritas Certification can confirm that:

- The implementation of the Project is consistent with the approved revised PDD and approved revised monitoring plan.
- The Project is operated as per the approved revised PDD by the PP.

### **3.3. Compliance of the monitoring plan with the monitoring methodology including applicable tool(s) (277)**

The monitoring plan is in accordance with the approved methodology applied by the proposed CDM project activity. The primary monitoring in the project activity is that of the net electricity supplied to the state electricity grid.

The verification team hereby confirms that the monitoring plan is in accordance with the approved methodology applied by the proposed CDM project activity.

✌ Corresponding to the paragraph 277 of VVS version 07.0, Bureau Veritas Certification can confirm that the monitoring plan is in accordance with the approved methodology including applicable tool(s) applied by the Project.

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<sup>2</sup> This procedure is detailed below in section 3.4

<sup>3</sup> Based on the invoice raised by the PP, State Utility issues a sales receipt against each invoice, specifying the payment to be made against electricity sale.

### 3.4. Compliance of monitoring activities with the monitoring plan (280-281)

Permanent changes to the monitoring plan as described in the registered PDD have occurred and identified during previous verification.

A request for approval of changes was submitted prior to submitting the request for issuance and approved by the Board on 21/07/2011.

Monitoring has been carried out in accordance with the approved revised monitoring plan.

#### [Parameters and information flow]

The parameters required by the monitoring plan and how Bureau Veritas Certification has verified the information flow (from data generation, aggregation, to recording, calculation and reporting) for these parameters including the values in the monitoring report are described below:

#### *Parameters monitored:*

Sr. no.	Parameter	Data information flow
(1)	<b>Transmission loss for export between the metering location at 33 kV metering point and the high voltage side of the substation to which the subproject is connected (<math>T_E</math>)</b>	<p>The verification team noted that the electricity exported to and imported from the grid is recorded through energy meters at the WEC metering location and also through energy meters located at the substation (referred as the grid interconnection point).</p> <p>On a particular day of a month, joint meter reading is taken both at WEC metering location as well as the grid interconnection point viz. State Utility substation by representatives of the state utility and the PP.</p> <p>Since the electricity measured at the substation represents the electricity supplied by the entire wind farm (including Non-PP WEC), hence a transmission loss is calculated for the cumulative generation and the transmission loss percentage is applied to energy export readings taken at each WEC metering location.</p> <p>The cumulative transmission loss% is calculated in the following manner.</p> $Z = ((X1+X2+X3.....Xn) - Y) \times 100 / ((X1+X2+X3.....Xn)$ <p>Where,</p> <p>Z = Percentage transmission loss for export incurred in transmission line between the meters located at 33 kV metering point (including the machines of the project activity and other project developers) and the meters located at high voltage side (bulk meter: main and check) of receiving sub-</p>

		<p>station.</p> <p><math>X_i</math> (where, <math>i</math> can vary from 1 to <math>n</math>) = Energy Export Reading (<math>X_i</math>) noted at energy meter installed at 33kV metering point and represents the meters connected to project activity and other project developers. <math>X_1, X_2, X_3, \dots, X_n</math> are the meters that are installed at 33kV metering point (including the machines of the project activity and other project developers) and further connected to the receiving substation by internally connected lines.</p> <p><math>Y</math> = Energy Export Reading at bulk meter installed at high voltage side of transformer of the receiving sub-station (including project and non-project WEC)</p> <p><b><math>T_E = \text{Transmission Loss}\%(Z) \times \text{Energy Export at 33 KV metering point } (EG_{\text{Export}})</math></b></p> <p><i>Based on the above, the verification team concludes that the monitoring of transmission line loss is in line with the provision described in the monitoring plan.</i></p>
(2)	<p><b>Electricity Export recorded at the designated meter. All the subprojects included in the project activity have dedicated main and check meters at 33 kV metering point (<math>EG_{\text{Export}}</math>)</b></p>	<p>The verification team noted that the electricity exported to the grid is recorded through energy meters at the WEC metering location.</p> <p>Main and check meters have been installed at each WEC metering location.</p> <p>On a particular day of a month, joint meter reading is taken at all the WEC metering location by representatives of the state utility and the PP.</p> <p><i>Based on the above, verification team concludes that the monitoring of electricity export to grid by all project activity WECs is in line with the provision described in the monitoring plan.</i></p>
(3)	<p><b>Electricity Import recorded at the meters (main and check meters). All the subprojects included in the project activity have dedicated main and check meters at 33 kV metering point (<math>EG_{\text{Import}}</math>)</b></p>	<p>The verification team noted that the electricity imported from the grid is recorded through energy meters at the WEC metering location.</p> <p>Main and check meters have been installed at each WEC metering location.</p> <p>On a particular day of a month, joint meter reading is taken at all the WEC metering location by representatives of the state utility and the PP.</p> <p><i>Based on the above, verification team concludes that the monitoring of electricity import from grid by all project activity WECs is in line with the provision described in the monitoring plan.</i></p>



(4)	<p><b>Net electricity supplied to the grid by the Project (<math>EG_y</math>)</b></p>	<p>The verification team noted that the based on monitored value of the above parameters, the state utility calculates the electricity supplied by each investor in accordance with the following formula-</p> $EG_y = EG_{Export} - 115\% ^4 \times EG_{Import} - Transmission Loss (T_E)$ <p>Based on the above formula, a monthly statement/B form is prepared by state utility, to calculate the electricity supplied by each investor in a particular month and sent to respective project owners.</p> <p>The validation team has cross-checked the above mentioned calculation procedure through an actual sample calculation for a particular month and observed that the procedure is in accordance with the above procedure as described in the monitoring plan.</p> <p>Based on the value in the monthly statements/B form, the PP raises an invoice to state utility. The value in the invoice is cross-checked with the sale receipts which are issued by State Utility on receiving the B forms and invoice for a particular month.</p> <p>Since B forms are the certificate issued by the state utility viz. and based on this only the project participant raises the invoices and receives payment for the electricity supplied; hence the same is considered as authentic and reliable.</p> <p>The verification team verified the monthly statements/B forms for all the investors in the project activity and for all the months in the current monitoring period.</p> <p>Based on the above, the verification team concludes that the monitoring of net electricity supplied to grid by the project activity is in line with the provision described in the monitoring plan. <math>EG_y</math> forms the basis for the estimation of baseline emissions from the project activity.</p>
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**Parameters determined ex-ante:**

- (1)  $EF_{CM,y}$  Combined margin emission factor of southern regional electricity grid

The emission factor of the Project has been determined ex-ante in the registered PDD. The emission factor used in the monitoring report has been verified against the PDD and found them to be consistent.

<sup>4</sup> In case of energy import, the state utility conservatively applies adjustment of 15% to the import values noted at 33 KV metering point.



Corresponding to the paragraph 280 and 281 of VVS version 07.0, Bureau Veritas Certification can confirm that:

- The monitoring has been carried out in accordance with the approved revised monitoring plan.
- All parameters required by the monitoring plan have been sufficiently monitored and correctly listed. The monitored data for required parameters have been verified by checking the whole information flow.

### 3.5. Compliance with the calibration frequency requirements for measuring instruments (288)

The revised monitoring plan indicates the frequency of calibration of the main/check meter at the WEC metering location and the sub-station as once in a year.

The verification team reviewed the calibration reports of the main/check meter at the WEC metering location and sub-station (Ref /9/ & /10/) and noted that the calibration was conducted as follows:

#### Energy meters at respective WEC metering location<sup>5</sup>

Sr. No.	Project Owner	RR No.	Meter Type	Meter Sr. No.	Latest Calibration Done	Calibration due on
1	Enercon Wind Farms (Chitradurga) Ltd.	EWFA-01	Main Meter	5463842	11/06/2012 27/02/2013 28/10/2013	27/10/2014
			Check meter	5463855	11/06/2012 27/02/2013 28/10/2013	27/10/2014
2	Desai Brothers	EP2-25	Main Meter	5437948	26/12/2011 26/12/2012 22/03/2013 09/01/2014	08/01/2015
			Check meter	5463853	26/12/2011 26/12/2012 22/03/2013 09/01/2014	08/01/2015
3	Dempo Industries	EP2-27	Main Meter	5463847	26/12/2011 28/12/2012 22/03/2013 10/01/2014	09/01/2015
			Check meter	5463838	26/12/2011 28/12/2012 22/03/2013 10/01/2014	09/01/2015
4	Power Link System Private Limited	EP2-28	Main Meter	5437934	26/12/2011 28/12/2012 22/03/2013	09/01/2015

<sup>5</sup> The instances where calibration has been delayed have been highlighted



## VERIFICATION REPORT

					10/01/2014	
			Check meter	5462964	26/12/2011 28/12/2012 22/03/2013 10/01/2014	09/01/2015
5	Srinivas Sirigeri	EP2-29	Main Meter	5463840	26/12/2011 28/12/2012 22/03/2013 10/01/2014	09/01/2015
			Check meter	5462963	26/12/2011 28/12/2012 22/03/2013 10/01/2014	09/01/2015
6	Panama Infrastructure	ELP-23	Main Meter	5390229	15/05/2012 21/02/2013 24/05/2013	23/05/2014
			Check meter	5271055	15/05/2012 21/02/2013 24/05/2013	23/05/2014
7	Sameer Ladkat	ELP-24	Main Meter	07022973	21/02/2012 21/02/2013 24/05/2013	23/05/2014
			Check meter	07022907	21/02/2012 21/02/2013 24/05/2013	23/05/2014
8	Elpro International	ELP-29	Main Meter	5436130	15/05/2012 21/02/2013 24/05/2013	23/05/2014
			Check meter	5436135	15/05/2012 21/02/2013 24/05/2013	23/05/2014
9	MK Agrotech Private Ltd	ELP-31	Main Meter	5389904	15/05/2012 21/02/2013 24/05/2013	23/05/2014
			Check meter	5386140	15/05/2012 21/02/2013 24/05/2013	23/05/2014
10	Panama Business Centre	ELP-33	Main Meter	8001400	15/05/2012 21/03/2013 31/05/2013	30/05/2014
			Check meter	5390230	15/05/2012 21/03/2013 31/05/2013	30/05/2014
11	Sameer Ladkat	ELP-34	Main Meter	5390421	15/05/2012 21/03/2013 31/05/2013	30/05/2014
			Check meter	5341085	15/05/2012 21/03/2013 31/05/2013	30/05/2014
12	Gautam Ladkat	ELP-35	Main Meter	5389971	15/05/2012 21/03/2013 31/05/2013	30/05/2014
			Check meter	5389974	15/05/2012 21/03/2013 31/05/2013	30/05/2014



## VERIFICATION REPORT

13	Steelfab Offshore	ELP-37	Main Meter	5437939	15/05/2012 21/03/2013 31/05/2013	30/05/2014
			Check meter	5437956	15/05/2012 21/03/2013 31/05/2013	30/05/2014
14	Dewanchand Ramsaran	ELP-38	Main Meter	5389379	15/05/2012 21/03/2013 31/05/2013	30/05/2014
			Check meter	5389378	15/05/2012 21/03/2013 31/05/2013	30/05/2014
15	Abhilash Garments & Estates (P) Ltd.	GDG/TL & SS/WF/A GEM/Loc No-11/46	Main Meter	5463841	26/11/2011 09/05/2013	08/05/2014
			Check meter	6760772	26/11/2011 09/05/2013	08/05/2014
16	Prasad Global Solutions	GDG/TL & SS/WF/P GSM/Loc No-1/41	Main Meter	6607372	25/01/2012 09/05/2013	08/05/2014
			Check meter	5389381	25/01/2012 09/05/2013	08/05/2014
	Prasad Global Solutions	GDG/TL & SS/WF/P GSR/Loc No-17/50	Main Meter	6675385	26/11/2011 15/06/2013	14/06/2014
			Check meter	6675392	26/11/2011 15/06/2013	14/06/2014
17	Gangadhar Narsingdas Agarwal	GDG/TL & SS/WF/G NAM/Loc No-12 & 13/47	Main Meter	6675414	26/11/2011 31/07/2014	30/07/2015
			Check meter	6675384	26/11/2011 31/07/2014	30/07/2015
	Gangadhar Narsingdas Agarwal	GDG/TL & SS/WF/G NAM/Loc No-6,7 & 8/45	Main Meter	6675390	25/01/2012 31/07/2014	30/07/2015
			Check meter	6760764	25/01/2012 31/07/2014	30/07/2015
18	Siddaganga Oil Extractions Ltd.	GDG/TL & SS/WF/G NAM/Loc No 14 & 15/48	Main Meter	5463849	26/11/2011 31/07/2014	30/07/2015
			Check meter	6605127	26/11/2011 31/07/2014	30/07/2015

**Energy meters at Substation**

Sr. No.	Name of Substation	Meter RR No.	Main Meter	Check Meter	Latest Calibration done	Calibration due on
1	Wind World Substation at Imangala	EWFA-01	05463842	05463855	11/06/12 27/02/13 28/10/13	27/10/14

2	EP-II Sub-station at Nandana Hosuru	EP2-01	03097652	02048064	15/09/12 28/03/13 22/09/14 <sup>6</sup>	21/09/15
		EP2-02	02048052	02048043	06/03/12 28/03/13 22/09/14 <sup>7</sup>	21/09/15
3	GIM-II Sub-station at Gownalli	ELP-17	05271046	05389972	13/06/12 20/03/13 23/07/14 <sup>8</sup>	22/07/15
		ELP-41	05389983	05389985	13/06/12 20/03/13 23/07/14 <sup>9</sup>	22/07/15
4	Gadag Sub-station at Banikoppa	Line I (GDG/TL&SS/WF/ ELB/110LINE-I/39)	06607369	06606801	14/07/11 22/10/12 25/07/13	24/07/2014
		Line II (GDG/TL&SS/WF/ ELB/110LINE-II/39)	06605135	06607373	25/09/12 25/07/13	24/07/2014

As can be seen from above, calibration has been delayed for ten WEC metering location and four substation meters. Error factor was not applied for delay in calibration of substation meters and hence CAR 4 was raised. Subsequently error factor was applied for all instances where calibration was delayed and hence CAR 4 was closed. A conservative approach is adopted in the calculation of emission reductions as follows. Conservative approach to calculate the net electricity supplied has been followed in line with EB 52 Annex 60 wherever applicable as follows:

Measured Value	Parameter	Error identified during calibration	Corrected values
X MWh	Electricity export	$\pm 0.2\%$	X (1 -Max . permissible error%/100)
X MWh	Electricity import	$\pm 0.2\%$	X (1+Max . permissible error%/100)

#### **Procedure followed for meters at WEC metering location**

As per the calibration records available after the delayed calibration, the energy meters were found to be within maximum permissible error and hence for the above procedure the maximum permissible error of energy meters viz. 0.2 was used.

Accordingly, energy export readings were reduced by 0.2% and energy import reading were increased by 0.2% in all cases where calibration was delayed.

#### **Procedure followed for Bulk meters at substation**

As explained above in section 3.4, that Bulk meter export readings are only used for calculation of transmission loss% and hence PP has conservatively increased the value of transmission line

<sup>6</sup> Calibration has been delayed

<sup>7</sup> Calibration has been delayed

<sup>8</sup> Calibration has been delayed

<sup>9</sup> Calibration has been delayed



loss by 0.2% for meter readings of all the investors connected to EP-II and GIM-II substations in cases where the calibration was delayed.

The above procedure is considered to be conservative by the verification team since the PP do not have access to the bulk meter readings and hence applying the error factor to the entire value of transmission loss is considered to be conservative for ER calculation.

Thus the verification team confirms that there are no data uncertainties in the monitored data and therefore the calculation of emission reductions is correct and reliable.

Corresponding to the paragraph 288 of VVS version 07.0, Bureau Veritas Certification can confirm that:

- For calibration that has been delayed, the conservative approach is adopted in the calculation of emission reductions and deemed as appropriate.

### 3.6. Assessment of data and calculation of emission reductions (291)

A complete set of data for the specified monitoring period is available.

The critical parameter used for the determination of Emission Reductions is the net electricity supplied to the grid by the Project. The data pertaining to the above parameter are maintained in the identified records. All the data are in compliance with that stated in the Monitoring Report version 2.0

As per the methodology ACM0002 version 6.0 and the approved revised PDD, the emission reductions for the Project are calculated as baseline emissions minus the project emissions. Hence the emission reduction is determined by the following formula:

$$ER_y = BE_y - PE_y$$

Where,

ER<sub>y</sub>: Emission reductions

BE<sub>y</sub>: Baseline emissions

PE<sub>y</sub>: Project emissions

The data used for calculation of the GHG emission reductions are as follows:

- a) The net electricity supplied to the grid by the project activity.
- b) The Southern regional grid emission factor.

As per the monitoring plan of the approved revised PDD, the following complete data set was required for the specified monitoring period to calculate the GHG emission reductions resulting from the project activity-



<b>Baseline emission</b>	
<b>Parameter</b>	<b>Source</b>
<b>Net electricity supplied to the grid by the project (EG<sub>y</sub>)</b>	<p><b><u>B-forms based on joint meter reading</u></b></p> <p>All the B-forms showing the energy supplied to grid by the project activity wind mills for the current monitoring period have been cross-checked by the verification team.</p> <p>The value in the B-forms is aggregated to calculate the net electricity exported to the grid by the project activity. The PP has included a separates worksheet in the ER calculation spreadsheet, which mentions monthly statement readings for the project activity for the current monitoring period separately for each billing month.</p>

The verification team confirms that complete data set for all the above mentioned monitored parameters is available for the current monitoring period and hence any theoretical assumption or request for deviation was not required before submitting the request for issuance.

**Cross check of information in monitoring report**

The information in the monitoring report has been cross-checked through other documentary evidence as explained below:

<b>Baseline emission</b>	
<b>Parameter</b>	<b>Cross-check Source</b>
<b>Net electricity supplied to the grid by the project (EG<sub>y</sub>)</b>	The value of net electricity supplied to the grid as reflected in the B-forms has been compared with the invoices submitted to state utility and the sales receipt.

**Calculation procedure of baseline emissions, project emissions and leakage**

<b>Calculation procedure</b>	
<b>Baseline emissions</b>	<p>Baseline emission calculations have been done in the monitoring report as per the following equation -</p> $BE_y = EG_y * EF_{CM,y}$ <p>Where –</p> <p><b>BE<sub>y</sub></b> – Baseline emissions</p> <p><b>EG</b> – Net electricity supplied to the grid by the project activity</p> <p><b>EF<sub>CM,y</sub></b> – Baseline emission factor for southern regional grid</p> <p>The above mentioned calculation procedure is in line with the procedure described in the registered PDD.</p>
<b>Project emissions</b>	Not applicable since there are no emissions attributed to the project activity outside the project boundary.



<b>Leakage</b>	Not applicable since there are no emissions attributed to the project activity outside the project boundary.
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*The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed.*

### **Emission factor and default values**

**Baseline emission factor of southern regional grid** - The emission factor taken for the calculation of baseline emissions (0.93204 tCO<sub>2</sub>e/MWh) is determined ex-ante and fixed for the crediting period. The same is in line with the registered PDD.

The verification team confirms that the emission factor is in line with the requirement of the applied methodology and associated tools.

### **[Comparison of ERs]**

The estimated emission reductions for the monitoring period are 98,661 tCO<sub>2</sub>e as per the approved revised PDD. The actual operation period of the Project in the monitoring period is 18 months. The corresponding estimate in the monitoring period are  $(65774/12) \times (18) = 98,661$  (approx) tCO<sub>2</sub>e. The actual emission reductions are 69,405 tCO<sub>2</sub>e and hence lower than the estimated value in the monitoring period.

Corresponding to the paragraph 291 of VVS version 07.0, Bureau Veritas Certification can confirm that:

- Data used for the determination of the emission reductions are available and monitored in accordance with the approved revised monitoring.
- Information and data provided in the monitoring report have been cross-checked with other sources such as invoices, B-forms and calibration records.
- Appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed.
- Assumptions, emission factors and default values that were applied in the calculations have been justified.



#### 4. VERIFICATION OPINION

Bureau Veritas Certification has performed the 4<sup>th</sup> periodic verification of “**Enercon Wind Farms in Karnataka Bundled Project – 30.40 MW**” CDM Registration Reference Number 1291, which is located in Chitradurga & Gadag District of Karnataka India and applying the methodology ACM0002/version 06.0. The verification was performed based on the requirements set by the CDM and relevant guidance provided by CMP and the CDM Executive Board.


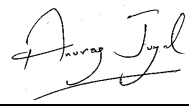
The verification consisted of the following three phases: i) desk review of the project design, the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The management of Wind World (India) Limited is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions of the project on the basis set out within the monitoring plan contained in the approved revised PDD. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification has verified the project Monitoring Report version 2.0 dated 27/09/2014 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as described in the approved revised project design documents. Installed equipments being essential for generating emission reductions run reliably and are calibrated appropriately. The monitoring system is in place and the Project is generating GHG emission reductions as a CDM project.

Bureau Veritas Certification can confirm that the GHG emission reductions are calculated without material misstatements. Our opinion relates to the projects' GHG emissions and resulting GHG emission reductions reported and related to the approved revised monitoring plan and its associated documents. Based on the evidence and information that are considered necessary to guarantee that GHG emission reductions are appropriately calculated, Bureau Veritas Certification confirms the following statement:

Reporting period:	01/10/2012- 31/03/2014
Baseline emissions:	69,405 t CO <sub>2</sub> equivalents
Project emissions:	0 t CO <sub>2</sub> equivalents
Leakage emissions:	0 t CO <sub>2</sub> equivalents
Emission Reductions:	69,405 t CO <sub>2</sub> equivalents

	
Mr. Sanjay Patankar	Mr. Anurag Juyal
Internal Technical Reviewer	Team Leader
06/10/2014	06/10/2014



## 5. REFERENCES

### Documents reviewed:

/1/	VVS version 7.0
/2/	Revised Final Monitoring Report, version 2.0, dated 27/09/2014
/3/	Emission Reduction Calculation Spreadsheet
/4/	Approved revised PDD version 6.0 dated 16/04/2011 and Revised PDD version 7.0 dated 19/08/2014 submitted along with current issuance request
/5/	ACM0002 / version 6.0 " <i>Consolidated baseline methodology for grid-connected electricity generation from renewable sources</i> "
/6/	Monthly B-forms for the project activity for the current monitoring period.
/7/	Invoices raised by the project participant on state utility, for the current monitoring period
/8/	Sales receipt against the invoices raised for the current monitoring period
/9/	Calibration certificate of the main meter and check meter installed at WEC metering location in 2012, 2013 and 2014.
/10/	Calibration certificate of the main meter and check meter installed at substation location in 2012, 2013 & 2014.

### Persons interviewed:

	<b>Wind World (India) Limited</b>	
/11/	Ms. Poorvi Joshi	CDM Consultant
/12/	Mr.K Selvaganapathi	Asst. Engineer
/13/	Mr. Kapil Gupta	Assistant Engineer
/14/	Mr. Uttkarsh	Engineer



## 6. CURRICULA VITAE OF THE DOE'S VERIFICATION TEAM MEMBERS

Mr. Anurag Juyal	Bureau Veritas Certification, India	<p>Team Leader, Climate Change Lead Verifier</p> <p>Mr. Anurag Juyal is a Post-graduate in Energy Systems with more than 6 years of experience in the field of climate change services. He is working in Bureau Veritas Certification (India) Pvt. Ltd. as Lead Verifier-Climate Change. Prior to joining Bureau Veritas, he worked on GS/CDM/VCS projects as a consultant. He has received extensive training in CDM validation and verification processes and participated in assessment of CDM projects.</p>
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Ms. Sanjay Patankar	Bureau Veritas Certification, India	<p>Internal Technical Reviewer, Climate Change Local Product Manager</p> <p>Educational qualifications: B.E. (Mech.) M.E. (Mech.)</p> <p>He has over 20 years of experience in engineering manufacturing industry covering various functions like enterprise management, product design, engineering, tool &amp; die design, improvements in the production shop, quality assurance &amp; control and systems planning and implementation, including ISO 9001 based quality management systems. Working for the last 2 years in Bureau Veritas Certification (India) Pvt. Ltd. as Lead Auditor for ISO 9001, 14001 and OHSAS 18001 standards/specifications. Has undergone training related to Clean Development Mechanism and is currently involved in validation and verification of CDM project activities.</p>
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## APPENDIX A: CDM PROJECT VERIFICATION PROTOCOL (Rev 08)

**Table 1 Verification requirements based on VVS version 07.0 (EB 79 Annex 4), PS version 07.0 (EB 79 Annex 3), PCP version 07.0 (EB 79 Annex 5), and Guidelines for completing the Monitoring Report Form version 04.0 (EB 75 Annex 7)**

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>Part I Cover Page</b>					
(a) Is the title of the project activity provided?	MR		The title of the project activity has been provided as " <i>Enercon Wind farms in Karnataka Bundled Project – 30.40 MW</i> ".	OK	OK
(b) Is the reference number of the project activity provided?	MR		Reference number of the project activity has been provided as 1291	OK	OK
(c) Is the version number of the monitoring report indicated?	MR		Version number is indicated as 1.	OK	OK
(d) Is the completion date of the monitoring report provided in DD/MM/YYYY format?	MR		Completion date of the monitoring report is provided in DD/MM/YYYY format.	OK	OK
(e) Is the registration date of the project activity provided in DD/MM/YYYY format?	MR		Registration date of the project activity is provided in DD/MM/YYYY format.	OK	OK
(f) Are the monitoring period number and duration of this monitoring period (first and last days included in DD/MM/YYYY format) provided?	MR		Monitoring period number is provided as 4 <sup>th</sup> and the first and last days of the duration of monitoring period is provided in DD/MM/YYYY format.	OK	OK
(g) Are project participants indicated?	MR		Project participant has been indicated as " <i>Wind World (India) Limited</i> ".	OK	OK
(h) Is the host party (ies) indicated?	MR		Host party has been indicated as India.	OK	OK
(i) Are the sectoral scope(s) and applied methodology (ies) indicated?	MR		Yes. Sectoral scope is indicated as 1, however the title of the applied methodology is not correctly mentioned. Please clarify.	CL 1	
(j) Is the estimated amount of GHG emission	MR		Estimated amount of GHG emission reductions for this	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
reductions or net anthropogenic GHG removals by sinks for this monitoring period in the registered PDD indicated?			monitoring period has been indicated as 98,661 tCO <sub>2</sub> e.		
(k) Are the actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved in this monitoring period indicated?	MR		Actual GHG emission reductions achieved in this monitoring period is indicated as 69,430 tCO <sub>2</sub> e.	OK	OK
(l) Are the actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved during the period up to 31 December 2012 indicated (if applicable)?	MR		Actual GHG emission reductions achieved during the period up to 31 December 2012 is indicated in the MR.	OK	OK
(m) Are the actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved during the period from 1 January 2013 onwards indicated (if applicable)?	MR		Actual GHG emission reductions achieved during the period from 1 January 2013 onwards is indicated.	OK	OK
<b>Part II Monitoring Report</b>					
<b>A. Description of project activity</b>					
<b>A.1 Purpose and general description of project activity</b>					
A.1.1 Is the description of the project activity to be presented in this section a brief summary of the detailed description given in the section B.1 Implementation status of the project activity?	MR		The description provided is a brief summary of the detailed description given in section B.1 Implementation status of the project activity.	OK	OK
A.1.2 Does this description include:					
A.1.2.1 Purpose of the project activity and the measures taken for GHG emission	MR		Purpose of the project activity and the measures taken	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
reductions or net anthropogenic GHG removals by sinks?			for GHG emission reductions are provided in the MR.		
A.1.2.2 Brief description of the installed technology and equipments?	MR		Brief description of the installed technology and equipments is provided in the MR.	OK	OK
A.1.2.3 Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.)?	MR		Relevant dates are provided.	OK	OK
A.1.2.4 Total GHG emission reductions or net anthropogenic GHG removals by sinks achieved in this monitoring period?	MR		Total GHG emission reductions achieved in this monitoring period has been specified in the MR.	OK	OK
<b>A.2 Location of project activity</b>					
A.2.1 Is the information on the location of the project activity provided, including Host Party (ies), Region/State/Province, City/Town/Community, Physical/Geographical location etc.?	MR		Yes, location of the project activity with latitude longitude coordinates of each wind turbine is presented. Details regarding host party, village, District & state is also provided.	OK	OK
<b>A.3 Parties and project participant(s)</b>					
A.3.1 Is the Party (ies) and project participant(s) involved in the project activity listed in the provided table?	MR		Party is mentioned as India and project participant is mentioned as " <i>Wind World (India) Limited</i> ".	OK	OK
<b>A.4 Reference of applied methodology</b>					
A.4.1 Is the exact reference (number, title, version) of the methodology (ies) indicated?	MR		The number and version of the methodology has been correctly indicated as :  Number – ACM0002	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			Version – 6.0 Title is correctly mentioned as <i>Consolidated baseline methodology for grid-connected electricity generation from renewable sources</i> .		
A.4.2 Is the exact reference (number, title, version) of any tools and other methodologies to which the applied methodology (ies) refers indicated?	MR		All the tools used in the PDD, to which the methodology refers are indicated.	OK	OK
<b>A.5 Crediting period of project activity</b>					
A.5.1 Are the type, start date and length of the crediting period corresponding to this monitoring period provided?	MR		Yes, the type, start date and length of the crediting period corresponding to this monitoring period is provided.	OK	OK
<b>B. Implementation of project activity</b>					
<b>B.1 Description of implemented registered project activity</b>					
B.1.1 Is the description of the installed technology, technical processes and equipments provided, include diagrams where appropriate?	MR PS	191(a)	Description of the installed technology and equipments has been provided in the MR.	OK	OK
B.1.2 Is the information on the implementation and actual operation of the project activity, including relevant dates (e.g. construction, commissioning, continued operation periods, etc.) provided?	PS	191(b)	Continued operation period is not stated in the MR. Please clarify.	CL 2	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
B.1.3 Is the description of: (i) the events or situations that occurred during the monitoring period that may impact the applicability of the methodology (ii) how the issues resulting from these events or situations have been addressed provided?	PS	191(c)	There are no events or situation that occurred during the monitoring period that may impact applicability of methodology. Validation team has verified the same during the interview with representatives of O&M service provider during the site visit.	OK	OK
B.1.4 Have the project participants addressed the FARs identified during validation or previous verification(s)?	VVS	213	No FARs were identified during validation or previous verification.	OK	OK
B.1.5 Have the implementation and operation of the project activity been conducted in accordance with the description contained in the registered PDD?	VVS	226	Implementation and operation of the project activity has been conducted in accordance with the description contained in the approved revised PDD.	OK	OK
B.1.6 Are all physical features of the project activity in the registered PDD in place?	VVS	227	All the physical features of the project activity in the revised PDD are in place.	OK	OK
B.1.7 Have the project participants operated the project activity as per the registered PDD or any approved revised PDD?	VVS	227	Yes, the project has been operated as per the approved revised PDD. The same was confirmed during physical site visit on 24/07/2014 by validation team.	OK	OK
B.1.8 Was an on-site visit conducted?	VVS	227	An on-site visit was conducted on 24/07/2014 by a single member verification team.	OK	OK
B.1.9 If an on-site visit is not conducted, is the rationale of the decision justified?	VVS	227	An on-site visit was conducted on 24/07/2014 by a single member verification team.	OK	OK
<b>B.2 Post registration changes</b>					
B.2.1 Temporary deviations from registered monitoring plan or applied methodology					
B.2.1.1 Is it indicated whether any temporary deviations have been applied during this monitoring period?	MR		Not applicable	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
B.2.1.2 Is a description of the deviation(s) in accordance with applicable provisions in the Project standard provided?	MR		Not applicable	OK	OK
B.2.1.3 Are the reasons for the deviation(s), how it deviates from the monitoring plan and/or applied methodology(ies), the duration for which the deviation(s) is(are) applicable and justification on the conservativeness of the approach included in the description?	MR		Not applicable	OK	OK
B.2.1.4 For deviation(s) that require prior approval by the Board, are the date of approval and reference number included in the description?	MR		Not applicable	OK	OK
<b>B.2.2 Corrections</b>					
B.2.2.1 Is it indicated whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report?	MR		Not applicable	OK	OK
B.2.2.2 In cases where the correction(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, are the approval date and reference number provided? Otherwise, are the version number and the completion date of the revised PDD provided?	MR		Not applicable	OK	OK





## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
B.2.3 Permanent changes from registered monitoring plan or applied methodology					
B.2.3.1 Is it indicated whether any permanent changes from the registered monitoring plan or applied methodologies have been approved during this monitoring period or submitted with this monitoring report?	MR		It is that project has undergone changes in monitoring plan and the same was approved by UNFCCC on 21/07/2011.	OK	OK
B.2.3.2 In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, are the approval date and reference number provided? Otherwise, are the version number and the completion date of the revised PDD provided?	MR		Approval date has been provided as 21/07/2011.	OK	OK
B.2.4 Changes to project design of registered project activity					
B.2.4.1 Is it indicated whether any changes to the project design of the project activity have been approved during this monitoring period or submitted with this monitoring report?	MR		(a) From the project webpage, it is observed that there has been changes in the PDD which were approved on 16/06/2011. But there is no information provided in the MR regarding the same. Please explain  (b) It has been stated in the MR that there has been change in ownership for one of the WEC owner. However, revised PDD reflecting this change is not provided.	CAR 1	
B.2.4.2 In cases where the change(s) and the revised PDD are approved prior to the	MR		(a) From the project webpage, it is observed that there has been changes in the PDD which were approved on	(CAR1)	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
submission of this monitoring report for request for issuance, are the approval date and reference number provided? Otherwise, are the version number and the completion date of the revised PDD provided?			16/06/2011. But there is no information provided in the MR regarding the same. Please explain  (b) It has been stated in the MR that there has been change in ownership for one of the WEC owner. However, revised PDD reflecting this change is not provided.		
<b>B.2.5 Changes to start date of crediting period</b>					
B.2.5.1 Is it indicated whether any changes to the start date of the crediting period have been approved during this monitoring period?	MR		Not applicable	OK	OK
B.2.5.2 In cases where the changes and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, are the approval date and reference number provided?	MR		Not applicable	OK	OK
<b>B.2.6 Types of changes specific to afforestation or reforestation project activity</b>					
B.2.6.1 Is it indicated whether any changes specific to afforestation or reforestation project activities have been applied during this monitoring period based on applicable provisions in the Project standard that do not require prior approval by the Board?	MR		Not applicable	OK	OK
B.2.6.2 If changes were applied, are the version number and the completion	MR		Not applicable	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
date of the revised PDD provided?					
<b>C. Description of monitoring system</b>					
<b>C.1 General requirements</b>					
C.1.1 Have project participants described the monitoring system and provided line diagrams (graphical schemes) showing all relevant monitoring points?	MR PS	193	Line diagram included in Appendix 1 is not legible. Please clarify.	CL 3	
C.1.2 Does this description where appropriate include data collection procedures (information flow including data generation, aggregation, recording, calculations and reporting), organizational structure, roles and responsibilities of personnel, and emergency procedures for the monitoring system?	MR PS	193	Description includes data collection procedure, organizational structure, roles and responsibilities of personnel and emergency procedures.	OK	OK
C.1.3 Is the monitoring plan of the project activity in accordance with the applied methodology including applicable tool(s)?	VVS	229	Yes, the monitoring plan implemented is in accordance with the applied methodology.	OK	OK
C.1.4 For monitoring aspects that are not specified in the methodology, particularly in the case of small-scale methodologies (e.g. additional monitoring parameters, monitoring frequency and calibration frequency), are there any issues which may enhance the level of accuracy and completeness of the monitoring plan and	VVS	231	Not Applicable	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
should bring to the attention of the Board?					
C.1.5 Has the monitoring plan been properly implemented and followed by the project participants?	VVS	234(a)	Monitoring plan has been properly implemented and followed by the project participant.	OK	OK
C.1.6 Have all parameters stated in the monitoring plan and relevant Board decisions been monitored and updated as applicable, including:	VVS	234(b)		-	-
C.1.6.1 Project emission parameters?	VVS	234(b)	Project emissions are considered as zero which is in line with the methodology.	OK	OK
C.1.6.2 Baseline emission parameters?	VVS	234(b)	Yes	OK	OK
C.1.6.3 Leakage parameters?	VVS	234(b)	Leakage is not considered.	OK	OK
C.1.6.4 Management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the monitoring plan?	VVS	234(b)	Responsibilities and authorities for monitoring and reporting are in accordance with responsibilities stated in monitoring plan.	OK	OK
<b>D. Data and parameters</b>					
<b>D.1 Data and parameters fixed ex ante or at renewal of crediting period</b>					
D.1.1 For "Purpose of data", is one of the following options chose: (a) Calculation of baseline emissions or baseline net GHG removals by sinks; (b) Calculation of project emissions or actual net GHG removals by sinks; (c) Calculation of leakage?	MR		Purpose of data stated for fixed exante parameters is not as per MR guidelines. Please explain.	CAR 2	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
D.1.2 For "Value(s) applied", if applicable, is one table used to report multiple values referring to the same data and parameter? If necessary, are reference(s) to electronic spreadsheets used?	MR		Value applied has been provided in the MR which is in accordance with the registered PDD.	OK	OK
D.1.3 Is the source of data provide and/or identified?	PS	195(d)	Source of data has been provided in the MR.	OK	OK
D.1.4 Is information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of GHG emission reductions or net GHG removals provided?	PS	195(g)	Information about emission factors has been provided. IPCC default values or any other reference values have not been used.	OK	OK
<b>D.2 Data and parameters monitored</b>					
D.2.1 For "Purpose of data", is one of the following options chose: (a) Calculation of baseline emissions or baseline net GHG removals by sinks; (b) Calculation of project emissions or actual net GHG removals by sinks; (c) Calculation of leakage?	MR		Purpose of data stated for monitored parameters is not as per MR guidelines. Please explain.	CAR 3	
D.2.2 For "Value(s) of monitored parameter", if applicable, is one table used to report multiple values referring to the same data and parameter? If necessary, are reference(s) to electronic spreadsheets used?	MR		For value of parameter, summation value is provided for all the parameters.	OK	OK
D.2.3 Are the values of the monitored parameter for the purpose of calculating GHG emission reductions or net GHG removals	PS	195(a)	For value of parameter, summation value is provided for all the parameters.	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
provided? Where data are measured continuously, are they presented using an appropriate time interval? For default values (such as an IPCC value), where it is ex post confirmed, is the most recent value applied?					
D.2.4 Is the equipment used to monitor each parameter described, including details on accuracy class, and calibration information (frequency, date of calibration and validity), if applicable as per monitoring plan?	PS	195(b)	<p>(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.</p> <p>(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.</p> <p>(3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear wether any error factors has been applied. Please explain.</p>	CAR 4	
D.2.5 Is the equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan, the applied methodology, the Board guidance, local/national standards, or as per the manufacturer's specification?	VVS	234(c)	<p>(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.</p> <p>(2) For Project owner, Sameer Ladkat, there is two set</p>	(CAR4)	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<p>of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.</p> <p>(3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear wether any error factors has been applied. Please explain.</p>		
D.2.6 Is the calibration of those measuring equipments that have an impact on the claimed emission reductions conducted by the project participants at a frequency specified in the applied monitoring methodology and/or the monitoring plan?	VVS	237	<p>(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.</p> <p>(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.</p> <p>(3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear wether any error factors has been applied. Please explain.</p>	(CAR4)	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
D.2.7 If, during verification of a certain monitoring period, the calibration has been delayed and the calibration has been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available), is the following conservative approach adopted in the calculation of emission reductions:	VVS	238			
D.2.7.1 Applying the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error?	VVS	238(a)	<p>(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.</p> <p>(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.</p> <p>(3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear whether any error factors has been applied. Please explain.</p>	(CAR4)	
D.2.7.2 Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment?	VVS	238(b)	(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.	(CAR4)	





## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			<p>(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.</p> <p>(3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear wether any error factors has been applied. Please explain.</p>		
D.2.8 Has the error has been applied:	VVS	239	-	-	-
D.2.8.1 In a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed emission reductions?	VVS	239(a)	<p>(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.</p> <p>(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.</p> <p>(3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for</p>	(CAR4)	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
			one year and hence its validity would end before the end of monitoring period. It is not clear whether any error factors has been applied. Please explain.		
D.2.8.2 For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.	VVS	239(b)	<p>(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.</p> <p>(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.</p> <p>(3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear whether any error factors has been applied. Please explain.</p>	(CAR4)	
D.2.9 In cases where the results of the delayed calibration are not available, or the calibration has not been conducted at the time of verification, prior to finalizing verification, were the project participants requested to conduct the required calibration have the project participants calculated the emission reductions conservatively using the approach	VVS	240	<p>(1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.</p> <p>(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration</p>	(CAR4)	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
mentioned in item "D.2.7" above?			were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.  (3) For meters installed at GIM-II, the last calibration was carried out on 20/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear wether any error factors has been applied. Please explain.		
D.2.10 In cases where it is not possible for the project participants to conduct the calibration at a frequency specified by either the applied methodology, guidance provided by the Board, and/or the registered monitoring plan due to reasons beyond the control of PPs, are the requirements for post registration changes, in section 9.5 of the VVS, followed?	VVS	241	Not applicable	OK	OK
D.2.11 In cases where neither the monitoring methodology nor the monitoring plan specify any requirements for calibration frequency for measuring equipments, are the equipments calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer's specification? If neither local/national standards nor the manufacturer's specification are available, were international standards used?	VVS	242	Not applicable	OK	OK
D.2.12 Is it described how the parameters are	PS	195(c)	Yes, the procedure for measurement & calculation and	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
measured/calculated and the measurement and recording frequency?			measurement & recording frequency is provided in the MR.		
D.2.13 Are monitoring results consistently recorded as per approved frequency?	VVS	234(d)	Yes, monitoring results are recorded on a monthly basis, which is in line with the applied methodology and the approved revised PDD.	OK	OK
D.2.14 Is the source of data (e.g. logbooks, daily records, surveys, etc.) provide and/or identified?	PS	195(d)	Source of data has been identified and provided to verification team.	OK	OK
D.2.15 Where relevant is the calculation method of the parameter provided?	PS	195(e)	Yes. Calculation method of monitored parameter is provided in the MR.	OK	OK
D.2.16 Are the QA/QC procedures applied described (if applicable per monitoring plan)?	PS	195(f)	QA/QC procedure have been described in the MR.	OK	OK
D.2.17 Have quality assurance and quality control procedures been applied in accordance with the monitoring plan or the revised monitoring plan?	VVS	234(e)	QA/QC has been applied in accordance with the monitoring plan.	OK	OK
D.2.18 Is information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of GHG emission reductions or net GHG removals provided?	PS	195(g)	Yes.	OK	OK
<b>D.3 Implementation of sampling plan</b>					
D.3.1 Is a description provided on how project participants implemented the sampling efforts and surveys for those data and parameters according to the sampling plan,	MR		Not applicable.	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
Include:					
D.3.1.1 Description of implemented sampling design?	MR		Not applicable.	OK	OK
D.3.1.2 Collected data (electronic spreadsheets may be attached and referenced)?	MR		Not applicable.	OK	OK
D.3.1.3 Analysis of the collected data?	MR		Not applicable.	OK	OK
D.3.1.4 Demonstration on whether the required confidence/precision has been met?	MR		Not applicable.	OK	OK
<b>E. Calculation of emission reductions or GHG removals by sinks</b>					
<b>E.1 Calculation of baseline emissions or baseline net GHG removals by sinks</b>					
E.1.1 Are the sample calculations for all formulae used and calculation of baseline emissions or baseline net GHG removals by sinks provided, applying actual values?	MR PS	197(a)	Sample calculations has been provided applying actual values.	OK	OK
E.1.2 Are the electronic spreadsheets to present full calculations in the monitoring report attached?	MR		Electronic spreadsheet to present full calculations in the MR is attached.	OK	OK
<b>E.2 Calculation of project emissions or actual net GHG removals by sinks</b>					
E.2.1 Are the sample calculations for all formulae used and calculation of project emissions or actual net GHG removals by sinks provided, applying actual values?	MR PS	197(b)	Not applicable	OK	OK
E.2.2 Are the electronic spreadsheets to present full calculations in the monitoring report	MR		Not applicable	OK	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
attached?					
<b>E.3 Calculation of leakage</b>					
E.3.1 Are the sample calculations for all formulae used and calculation of leakage provided, applying actual values?	MR PS	197(c)	Not applicable	OK	OK
E.3.2 Are the electronic spreadsheets to present full calculations in the monitoring report attached?	MR		Not applicable	OK	OK
<b>E.4 Summary of calculation of emission reductions or net anthropogenic GHG removals by sinks</b>					
E.4.1 Are the results of above sections summarized and GHG emission reductions or net anthropogenic GHG removals by sinks for this monitoring period presented, using the provided table?	MR PS	197(d)	Results of GHG emission reductions for this monitoring period has been presented using the provided table.	OK	OK
E.4.2 Is a complete set of data for the specified monitoring period is available?	VVS	245(a)	Complete set of data viz. JMR's, invoices is available for the entire monitoring period.	OK	OK
E.4.3 Has information provided in the monitoring report been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis?	VVS	245(b)	Information provided in the MR has been cross-checked with invoices.	OK	OK
E.4.4 Have calculations of baseline emissions, and project activity emissions and leakage, as appropriate, been carried out in accordance with the formulae and methods	VVS	245(c)	Yes, the calculations of baseline emissions are carried out in accordance with the formulae and methods described in the monitoring plan and the applied methodology document. PP has also provided the ER	OK	OK

## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
described in the monitoring plan and the applied methodology document?			calculation spreadsheet and the formulae used are in line with approved revised PDD.		
E.4.5 Have any assumptions used in emission calculations been justified?	VVS	245(d)	Assumptions have not been used for emission calculations.	OK	OK
E.4.6 Have appropriate emission factors, IPCC default values and other reference values been correctly applied?	VVS	245(e)	Appropriate emission factors have been applied in the MR.	OK	OK
<b>E.5 Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD</b>					
E.5.1 Is a comparison of actual GHG emission reductions or net anthropogenic GHG removal of the project activity achieved during this monitoring period with the estimates in the registered PDD provided?	MR PS	198	Annual comparison of PLF achieved by the project activity or ERs achieved is not provided in the MR. Please explain.	CAR 5	
<b>E.6 Remarks on difference from estimated value in registered PDD</b>					
E.6.1 For any registered CDM project activity, except A/R project activities, have project participants explained the cause of any increase in the actual GHG emission reductions achieved during the current monitoring period (e.g. higher water availability, higher plant load factor, etc.), including all information (i.e. data and/or parameters) that is different from that stated in the registered PDD?	MR PS	199	Annual comparison of PLF achieved by the project activity or ERs achieved is not provided in the MR. Please explain.	(CAR5)	



## VERIFICATION REPORT

CHECKLIST QUESTION	Ref.	§	COMMENTS	Draft Concl	Final Concl
<b>E.7 Actual emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards</b>					
E.7.1 If the monitoring period starts before 31 December 2012 and ends anytime thereafter, are actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved for the following two periods provided respectively? (a) Up to 31 December 2012 (1st commitment period); (b) From 1 January 2013 onwards.	MR		Actual GHG emission reductions or net anthropogenic GHG removals by sinks achieved for period upto 31 <sup>st</sup> Dec 2012 and 1 <sup>st</sup> Jan 2013 onwards is provided separately.	OK	OK
E.7.2 Is it ensured that the achieved GHG emission reductions or net anthropogenic GHG removals by sinks are calculated proportionally for each period? In cases where annual caps were applied in the calculations, is it ensured that the annual caps are pro-rated to each period?	MR		Not applicable.	OK	OK





Table 2 Resolution of Corrective Action /Clarification / Forward Action Requests

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
<b><u>CL 1</u></b> Yes. Sectoral scope is indicated as 1, however the title of the applied methodology is not correctly mentioned. Please clarify.	1(i)	In the revised version of MR, title of the applied methodology is correctly mentioned.	Title of the methodology is correctly mentioned in MR.  <b>Hence CL 1 is closed.</b>
<b><u>CL 2</u></b> Continued operation period is not stated in the MR. Please clarify.	B.1.2	In the revised version of MR, Section A.1 continued operation period has been mentioned.	Continued operation period has been stated in the MR.  <b>Hence CL 2 is closed.</b>
<b><u>CL 3</u></b> Line diagram included in Appendix 1 is not legible. Please clarify.	C.1.1	Line diagram in Annex 1 of revised version of MR is legible.	Line diagram in Annex 1 of MR is now corrected.  <b>Hence CL 3 is closed.</b>
<b><u>CAR 1</u></b> (a) From the project webpage, it is observed that there has been changes in the PDD which were approved on 16/06/2011. But there is no information provided in the MR regarding the same. Please explain.	B.2.4.1	a) The changes in monitoring plan has been accepted by UNFCCC on 21/07/2011 & the same has been reported in Section B.2.3 of MR.	Information regarding post-registration changes have been reported now in the MR.  <b>Hence CAR 1(a) is closed.</b>
(b) It has been stated in the MR that there has been change in ownership for one of the WEC owner. However, revised PDD reflecting this change is not provided.		b) Revised PDD with relevant changes has been submitted to DOE along with revised version of MR.	Revised PDD has been submitted now to the DOE and hence <b>CAR 1(b) is closed.</b>



## VERIFICATION REPORT

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
<b><u>CAR 2</u></b> Purpose of data stated for fixed ex-ante parameters is not as per MR guidelines. Please explain.	D.1.1	In revised version of MR, purpose of data stated for fixed ex-ante parameters is as per MR guidelines.	Purpose of data is corrected as per MR guidelines.  <b><i>Hence CAR 2 is closed.</i></b>
<b><u>CAR 3</u></b> Purpose of data stated for monitored parameters is not as per MR guidelines. Please explain.	D.2.1	In revised version of MR, purpose of data stated for monitored parameters is as per MR guidelines.	Purpose of data is corrected as per MR guidelines.  <b><i>Hence CAR 3 is closed.</i></b>
<b><u>CAR 4</u></b> (1) Details of calibration of monitoring equipments for some of the project owners prior to start of monitoring period is not provided in the MR. e.g. Desai Brothers, Dempo Industries etc. Please explain.	D.2.4	1. Details of calibration prior to start of monitoring period for investors of EP II site has been provided in revised version of MR.	Details of calibration of energy meters for all the project owners is now provided in the MR.  <b><i>Hence CAR 4(1) is closed.</i></b>



## VERIFICATION REPORT

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
(2) For Project owner, Sameer Ladkat, there is two set of main meter and check meter numbers provided in the MR. With the information in the MR, it is not clear when the meters changed and also the date of calibration were is not clear. This query is also applicable for meters installed at EP-II substation. Please explain.		2. For Project Owner, there is only one set of meter and the same has been rectified in the revised version of MR.  For EP-II the old meter, 04179674 has been replaced by new meter 03097652 & the same has been mentioned in revised version of MR.	(2)For Project owner Sameer Ladkat, there was only one set of meters installed. Inadvertently, the PP had stated regarding two set of meters.  For EP-II, the PP has now clearly stated the period of meter installation and also the calibration dates.  <b>Hence CAR 4(2) is closed.</b>
(3) For meters installed at GIM-II and EP-II, the last calibration was carried out on 20/03/2013 & 28/03/2013 which would be valid for one year and hence its validity would end before the end of monitoring period. It is not clear whether any error factors has been applied. Please explain.		3. In revised version of MR, error factor has been applied for GIM II & EP II for month of Mar-14.	(3) The project participant has applied maximum permissible error of the measuring equipment between scheduled dates of calibration till end of monitoring period.  <b>Hence CAR 4(3) is closed.</b>
<b><u>CAR 5</u></b>  Annual comparison of PLF achieved by the project activity or ERs achieved is not provided in the MR. Please explain.	E.5.1	Annual PLF comparison is not mentioned in the MR as the same is not required as per prescribed MR format. Moreover, considering 4 verifications earlier, actual PLF has remained	Justification provided is in accordance with MR guidelines.



## VERIFICATION REPORT

Draft report clarifications and corrective action requests by verification team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
		below the estimated PLF as per the registered PDD. Hence the annual comparison of PLF is not required.	<b>Hence CAR 5 is closed.</b>