



# VERIFICATION AND CERTIFICATION REPORT

- 1ST PERIODIC –

VISH WIND INFRASTRUCTRE LLP & J.N. INVESTMENT & TRADING  
CO. PRIVATE LIMITED

BUNDLED WIND POWER PROJECT IN JAMNAGAR, GUJARAT

UNFCCC REF. No. : 4964

Monitoring Period: 2011-09-01 to 2012-09-30  
(incl. both days)

**Report No: 8109477171-12/534**

**Date: 2013-02-21**

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1st Periodic Verification and Certification Report: Bundled Wind Power  
Project in Jamnagar, Gujarat



TÜV NORD JI/CDM Certification Program

R-No: 8109477171-12/534

<b>Verification Report:</b>	<b>Report No.</b>		<b>Rev. No.</b>	<b>Date of 1<sup>st</sup> issue:</b>	<b>Date of this rev.</b>
	8109477171-12/534		0	2013-02-21	2013-02-21
<b>Project:</b>	<b>Title:</b>			<b>Registration date:</b>	<b>UNFCCC-No.:</b>
	Bundled Wind Power Project in Jamnagar, Gujarat			2011-07-15	4964
	<b>Crediting period:</b>			<b>Verification No.:</b>	
	<input type="checkbox"/> Renewable (7y) <input checked="" type="checkbox"/> Fixed (10y)			1st periodic verification	
	<b>Project Scale:</b>			<b>From:</b>	<b>To:</b>
	<input type="checkbox"/> Large Scale <input checked="" type="checkbox"/> Small Scale			2011-09-01	2021-08-31
<b>Project Participant(s):</b>	<b>Client:</b>				
	Vish Wind Infrastructre LLP & J.N. Investment & Trading Co. Private Limited				
	<b>Non Annex 1 country:</b>			<b>Annex 1 country:</b>	
	India			NA	
	<b>PP from non Annex 1 country:</b>			<b>PP from Annex 1 country:</b>	
	Vish Wind Infrastructre LLP & J.N. Investment & Trading Co. Private Limited			NA	
<b>Applied methodology/ies:</b>	<b>Title:</b>			<b>No.:</b>	<b>Scope(s) / TA(s)</b>
	Grid Connected Renewable Electricity Generation			AMS.I.D version 16	1/1.2
<b>Monitoring period and monitoring report</b>	<b>Monitoring period (MP):</b>			<b>Monitoring Report:</b>	
	<b>From:</b>	<b>To:</b>	<b>No. of days:</b>	<b>Draft version:</b>	<b>Final version:</b>
	2011-09-01	2012-09-30	396	2012-10-08	2013-02-21
<b>Verification team / Technical Review and Final Approval:</b>	<b>Verification Team:</b>			<b>Technical review:</b>	<b>Final approval:</b>
	Mr. Sukanta Das-TL/TE			Mr. Ingo Klein Mrs. Inga Köster (OR)	Mr. Ingo Klein
<b>Key dates of verification:</b>	<b>Publication of MR :</b>		<b>DVerR issued:</b>	<b>On-site (from):</b>	<b>On-site (to):</b>
	2012-10-16		2012-11-08	2012-11-05	2012-11-06
<b>Summary of Verification opinion</b>	<p>Vish Wind Infrastructre LLP &amp; J.N. Investment &amp; Trading Co. Private Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "Bundled wind Power Project in Jamnagar, Gujarat", with regard to the relevant requirements for CDM project activities.</p> <p>As a result of this verification, the verifier confirms that:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> all operations of the project are implemented and installed as planned and described in the validated project design document,</li> <li><input checked="" type="checkbox"/> the monitoring plan is in accordance with the applied approved CDM methodology,</li> <li><input checked="" type="checkbox"/> the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately,</li> <li><input checked="" type="checkbox"/> the monitoring system is in place and functional. The project has generated GHG emission reductions, and</li> <li><input checked="" type="checkbox"/> the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner.</li> </ul> <p>TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as listed below (verified amount).</p>				

**1st Periodic Verification and Certification Report: Bundled Wind Power  
Project in Jamnagar, Gujarat**



TÜV NORD JI/CDM Certification Program

R-No: 8109477171-12/534

<b>Emission reductions: [t CO<sub>2e</sub>]</b>	<b>Total Verified amount</b>	<b>As per draft MR:</b>	<b>As per PDD:</b>
	17,732	17.868	20,115 (Considering the number of Monitoring days)
		<b>ER achieved up to 2012-12-31 17,732</b>	<b>ER achieved from 2013-01-01 0</b>
<b>Document information:</b>	<i>Filename:</i>		<i>No. of pages:</i>
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## Abbreviations:

<b>CA</b>	<b>Corrective Action / Clarification Action</b>
<b>CAR</b>	<b>Corrective Action Request</b>
<b>CDM</b>	<b>Clean Development Mechanism</b>
<b>CER</b>	<b>Certified Emission Reduction</b>
<b>CO<sub>2</sub></b>	<b>Carbon dioxide</b>
<b>CO<sub>2eq</sub></b>	<b>Carbon dioxide equivalent</b>
<b>CL</b>	<b>Clarification Request</b>
<b>DVerR</b>	<b>Draft Verification Report</b>
<b>ER</b>	<b>Emission Reduction</b>
<b>FAR</b>	<b>Forward Action Request</b>
<b>GHG</b>	<b>Greenhouse gas(es)</b>
<b>GEDA</b>	<b>Gujarat Energy Development Agency</b>
<b>GETCO</b>	<b>Gujarat Electricity transmission company</b>
<b>MP</b>	<b>Monitoring Plan</b>
<b>MR</b>	<b>Monitoring Report</b>
<b>NEWNE</b>	<b>North East West and North-East</b>
<b>PA</b>	<b>Project Activity</b>
<b>PDD</b>	<b>Project Design Document</b>
<b>PP</b>	<b>Project Participant</b>
<b>QA/QC</b>	<b>Quality Assurance / Quality Control</b>
<b>UNFCCC</b>	<b>United Nations Framework Convention on Climate Change</b>
<b>VVS</b>	<b>Validation and Verification Standard</b>
<b>WEC</b>	<b>Wind energy Convertors</b>
<b>XLS</b>	<b>Emission Reduction Calculation Spread Sheet</b>

<b>Table of Contents</b>	<b>Page</b>
1. INTRODUCTION .....	7
1.1. Objective	7
1.2. Scope	7
2. GHG PROJECT DESCRIPTION.....	9
2.1. Technical Project Description	9
2.2. Project Location	10
2.3. Project Verification History	11
3. METHODOLOGY AND VERIFICATION SEQUENCE .....	12
3.1. Verification Steps	12
3.2. Contract review	12
3.3. Appointment of team members and technical reviewers	12
3.4. Publication of the Monitoring Report	13
3.5. Verification Planning	14
3.6. Desk review	15
3.7. On-site assessment	16
3.8. Draft verification reporting	17
3.9. Resolution of CARs, CLs and FARs	17
3.10. Final reporting	18
3.11. Technical review	18
3.12. Final approval	18
4. VERIFICATION FINDINGS.....	19
5. SUMMARY OF VERIFICATION ASSESSMENTS.....	24
5.1. Involved Parties and Project Participants	24
5.2. Implementation of the project	24
5.3. Project history	25
5.4. Post registration changes	25
5.5. Compliance with the monitoring plan	25
5.6. Compliance with the monitoring methodology	25
5.7. Monitoring parameters	25
5.8. Monitoring report	27
5.9. Sampling	27
5.9.1. Implementation of the sampling plan	27
5.9.2. Sampling approaches during verification	27

5.10.	ER Calculation	27
5.11.	Quality Management	27
5.12.	Actual emission reductions during the first commitment period and the period from 1 January 2013 onwards	28
5.13.	Comparison with ex-ante estimated emission reductions	28
5.14.	Overall Aspects of the Verification	28
5.15.	Hints for next periodic Verification	28
6.	VERIFICATION AND CERTIFICATION STATEMENT .....	29
7.	REFERENCES .....	30
	ANNEX 1: VERIFICATION PROTOCOL .....	36
	ANNEX 2: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL .....	64

## 1. INTRODUCTION

Vish Wind Infrastructure LLP & J.N. Investment & Trading Co. Private Limited has commissioned the TÜV NORD JI/CDM Certification Program (CP) to carry out the 1st periodic verification of the project

*“Bundled Wind Power Project in Jamnagar, Gujarat”*

with regard to the relevant requirements for CDM project activities. The verifiers have reviewed the implementation of the monitoring plan (MP) in the registered CDM project.

GHG data for the monitoring period was verified in detailed manner applying the set of requirements, audit practices and principles as required under the Validation and Verification Standard <sup>/VVS/</sup> of the UNFCCC.

This report summarizes the findings and conclusions of this 1st periodic verification of the above mentioned UNFCCC registered project activity.

### 1.1. Objective

The objective of the verification is the review and ex-post determination by an independent entity of the GHG emission reductions. It includes the verification of the:

- implementation and operation of the project activity as given in the PDD,
- compliance with applied approved methodology and the provisions of the monitoring plan,
- data given in the monitoring report by checking the monitoring records, the emissions reduction calculation and supporting evidence,
- accuracy of the monitoring equipment,
- quality of evidence,
- significance of reporting risks and risks of material misstatements.

### 1.2. Scope

The verification of this registered project is based on the validated project design document <sup>/PDD/</sup>, the monitoring report <sup>/MR/</sup>, emission reduction calculation spreadsheet <sup>/XLS/</sup>, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The verification is carried out on the basis of the following requirements, applicable for this project activity:

- Article 12 of the Kyoto Protocol <sup>/KP/</sup>,

- guidelines for the implementation of Article 12 of the Kyoto Protocol as presented in the Marrakech Accords under decision 3/CMP.1 <sup>/MA/</sup>, and subsequent decisions made by the Executive Board and COP/MOP,
- other relevant rules, including the host country legislation,
- CDM Validation and Verification Standard <sup>/VVS/</sup>,
- monitoring plan as given in the registered PDD <sup>/PDD/</sup>,
- Approved CDM Methodology AMS.I.D version16.

## 2. GHG PROJECT DESCRIPTION

### 2.1. Technical Project Description

The purpose of the project activity is to utilize renewable wind energy for generation of electricity. The project activity replaces anthropogenic emissions of greenhouse gases (GHG's) into the atmosphere, which is estimated to be approximately 18,541 tCO<sub>2</sub>e per year, by displacing the equivalent amount of electricity generation through the operation of existing fuel mix in the grid comprising mainly fossil fuel based power plants and future capacity expansions connected to the grid.

In the absence of the project activity the equivalent amount of electricity would have been generated from the connected/new power plants in the 'Northern Eastern Western North-Eastern' NEWNE grid, which are/will be predominantly based on fossil fuels. Whereas the electricity generation from operation of Wind Energy Convertors (WEC's) is emission free. As per the applicable methodology the baseline scenario for the project activity is the grid based electricity system, which is also the pre-project scenario.

The proposed project is a bundled project activity which involves commissioning and operation of 12 Wind Energy Converter (WECs) of 0.8 MW capacities with a total installed capacity of 9.6 MW. The project activity involves 12-wind energy converters (WECs) of Enercon make (800 kW E-53)<sup>TS/</sup> with internal electrical lines connecting the project activity with local evacuation facility. 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 ± 12.5%<sup>TS/</sup>. The average life time of the WEC is around 20 years<sup>TS/</sup> as per information provided by the supplier.

The key parameters of the project are given in Table 2-1:

**Table 2-1:** Technical data of the project activity

Parameter	Unit	Value
Rated Power	kW	800
Rotor Diameter	M	53
Hub Height	M	75
Rated Wind Speed	m/sec	12
Extreme Wind speed	m/sec	59.5
Rated rotation speed	Rpm	32
Output Voltage	V	400

## 2.2. Project Location

The details of the project location are given in Table 2-2:

**Table 2-2:** Project Location

No.	Project Location
Host Country	India
Region:	Gujarat
Project location address:	The Project is located in Jamnagar district in the Indian State of Gujarat. Nearest airport and railway station are at Jamnagar city which is located at a distance of approximately 60 kms from the project activity site
Latitude:	Please see the below table
Longitude:	Please see the below table

Sr. No.	Project Owner	Unique WEC ID No.	Latitude			Longitude		
			Deg.	Min.	Sec.	Deg	Min	Sec.
1	J. N. Investme nt & Trading Co. Private Limited	EIL/800/10-11/1822	21	59	20.8	70	13	19
2		EIL/800/10-11/1823	21	59	12.7	70	13	19.7
3		EIL/800/10-11/1824	21	58	42.7	70	13	11.1
4		EIL/800/10-11/1825	21	56	1.8	70	11	4.1
5	Vish Wind Infrastru ctu re LLP	EIL/800/10-11/1887	21	56	13.4	70	11	11.5
6		EIL/800/10-11/1888	21	56	19.1	70	11	3
7		EIL/800/10-11/1889	21	59	23.7	70	6	53.3
8		EIL/800/10-11/1890	21	59	48.6	70	6	17.5
9		EIL/800/10-11/1891	21	58	57.6	70	10	21.9
10		EIL/800/10-11/1892	21	59	6.3	70	10	19.9
11		EIL/800/10-11/1893	21	59	23.3	70	10	14.4
12		EIL/800/10-11/1894	21	59	29.8	70	10	8.6

## 2.3. Project Verification History

Essential events since the registration of the project are presented in the following Table 2-3.

**Table 2-3:** Status of previous Monitoring Periods

#	Item	Time	Status
1	1 <sup>st</sup> Monitoring period	2011-09-01 to 2012-09-30	Awaiting Issuance request

An overview of all Post Registration Changes is given in the following table.

**Table 2-4:** Overview Post Registration Changes

#	Applicable from – to / as of	MP	Type of post registration change <sup>1)</sup>	Description	Status <sup>2)</sup> / Date
1	2011-09-01 to 2021-08-31	1	PCfrMP	Change in the calibration frequency of the cluster meter.	Accepted

- <sup>1)</sup> TDfrMP : Temporary deviation from registered monitoring plan  
 TDfMM : Temporary deviation from the monitoring methodology  
 CrPDD : Corrections to the registered PDD  
 PCfrMP : Permanent changes from registered Monitoring Plan  
 PCfMM : Permanent changes from Monitoring Methodology  
 CoPD : Changes to the project design of a registered project activity
- <sup>2)</sup> Approval (by EB) or Acceptance (by DOE)

### 3. METHODOLOGY AND VERIFICATION SEQUENCE

#### 3.1. Verification Steps

The verification consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the monitoring report
- A desk review of the Monitoring Report<sup>/MR/</sup> submitted by the client and additional supporting documents with the use of customised verification protocol<sup>/CPM/</sup> according to the Validation and Verification Standard<sup>/VVS/</sup>,
- Verification planning,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft verification reporting
- Resolution of corrective actions (if any)
- Final verification reporting
- Technical review
- Final approval of the verification.

#### 3.2. Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the verification can be provided,
- Impartiality issues are clear and in line with the CDM accreditation requirements

a contract review was carried out before the contract was signed.

#### 3.3. Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a verification team, consisting of one team leader and no additional team members, was appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the Table 3-1 below.

**Table 3-1:** Involved Personnel

	Name	Company	Function <sup>1)</sup>	Qualification Status <sup>2)</sup>	Scheme competence <sup>3)</sup>	Technical competence <sup>4)</sup>	Verification competence <sup>5)</sup>	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Sukanta Das	TUV India Pvt. Ltd	TL/TE	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Inga Köster	TN Cert Germany	OR <sup>B)</sup>	-	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Ingo Klein	TN Cert Germany	TR/ FA <sup>B)</sup>	SA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-

<sup>1)</sup> TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

<sup>2)</sup> GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

<sup>3)</sup> GHG auditor status (at least Assessor)

<sup>4)</sup> As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

<sup>5)</sup> In case of verification projects

<sup>A)</sup> Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

<sup>B)</sup> No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects.

Statements of competence for the above mentioned team members are enclosed in annex 2 of this report.

### 3.4. Publication of the Monitoring Report

In accordance with the CDM M&P (§ 62) the draft monitoring report, as received from the project participants, has been made publicly available on the dedicated UNFCCC CDM website prior to the verification activity commenced. Comments received are taken into account in the course of the verification, if applicable.

### 3.5. Verification Planning

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

#### Risk analysis and detailed audit testing planning

For the identification of potential reporting risks and the necessary detailed audit testing procedures for residual risk areas table A-1 is used. The structure and content of this table is given in Table 3-2 below.

**Table 3-2:** Table A-1; Identification of verification risk areas

<b>Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing</b>				
<b>Identification of potential reporting risk</b>	<b>Identification, assessment and testing of management controls</b>	<b>Areas of residual risks</b>	<b>Additional verification testing performed</b>	<b>Conclusions and Areas Requiring Improvement (including Forward Action Requests)</b>
<i>The following potential risks were identified and divided and structured according to the possible areas of occurrence.</i>	<i>The potential risks of raw data generation have been identified in the course of the monitoring system implementation. The following measures were taken in order to minimize the corresponding risks. The following measures are implemented:</i>	<i>Despite the measures implemented in order to reduce the occurrence probability the following residual risks remain and have to be addressed in the course of every verification.</i>	<i>The additional verification testing performed is described. Testing may include:</i> <ul style="list-style-type: none"> <li>- Sample cross checking of manual transfers of data</li> <li>- Recalculation</li> <li>- Spreadsheet 'walk throughs' to check links and equations</li> <li>- Inspection of calibration and maintenance records for key equipment</li> <li>- Check sampling analysis results</li> </ul> <i>Discussions with process engineers who have detailed knowledge of process uncertainty/error bands.</i>	<i>Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties are highlighted.</i>

The completed table A-1 is enclosed in Annex 1 (table A-1) to this report.

### Project specific periodic verification checklist

In order to ensure transparency and consideration of all relevant assessment criteria, a project specific verification protocol has been developed. The protocol shows, in a transparent manner, criteria and requirements, means and results of the verification. The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet for verification
- It ensures a transparent verification process where the verifying DOE documents how a particular requirement has been proved and the result of the verification.

The basic structure of this project specific verification protocol for the periodic verification is described in Table 3-3.

**Table 3-3:** Table A-2; Structure of the project specific periodic verification checklist

<b>Table A-2: Periodic verification checklist</b>				
<b>Checklist Item</b>	<b>Reference</b>	<b>Verification Team Comments</b>	<b>Draft Conclusion</b>	<b>Final Conclusion</b>
<i>The checklist items in Table A-2 are linked to the various requirements the monitoring of the project should meet. The checklist is organised in various sections as per the requirements of the topic and the individual project activity. It further includes guidance for the verification team.</i>	<i>Gives reference to the information source on which the assessment is based on.</i>	<i>The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the verification team and how the assessment was carried out. The reporting requirements of the VVS shall be covered in this section.</i>	<i>Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft verification stage.</i>	<i>In case of a corrective action or a clarification the final assessment at the final verification stage is given.</i>

The periodic verification checklist (verification protocol) is the backbone of the complete verification starting from the desk review until final assessment. Detailed assessments and findings are discussed within this checklist and not necessarily repeated in the main text of this report.

The completed verification protocol is enclosed in Annex 1 (table A-2) to this report.

### **3.6. Desk review**

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- the last revision of the PDD including the monitoring plan<sup>/PDD/</sup>,
- the last revision of the validation report<sup>/VAL/</sup>,
- documentation of previous verifications<sup>/VER/</sup>
- the monitoring report, including the claimed emission reductions for the project<sup>/MR/</sup>,
- the emission reduction calculation spreadsheet<sup>/XLS/</sup>.

Other supporting documents, such as publicly available information on the UNFCCC website and background information were also reviewed.

### 3.7. On-site assessment

As most essential part of the verification exercise it is indispensable to carry out an inspection on site in order to verify that the project is implemented in accordance with the applicable criteria. Furthermore the on-site assessment is necessary to check the monitoring data with respect to accuracy to ensure the calculation of emission reductions. The main tasks covered during the site visit include, but are not limited to:

- The monitoring data were checked completely.
- An assessment of the implementation and operation of the registered project activity as per the registered PDD or any approved revised PDD;
- A review of information flows for generating, aggregating and reporting the monitoring parameters;
- The data aggregation trails were checked via spot sample down to the level of the meter recordings.
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PDD;
- A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology and corresponding tool(s), where applicable;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

Before and during the on-site visit the verification team performed interviews with the project participants to confirm selected information and to resolve issues identified in the document review.

Representatives of PP including the operational staff of the plant were interviewed. The main topics of the interviews are summarised in Table 3-4.

**Table 3-4:** Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
1. Projects & Operations Personnel-/IM01/	<ul style="list-style-type: none"> <li>- General aspects of the project</li> <li>- Technical equipment and operation</li> <li>- Changes since validation</li> <li>- Monitoring and measurement equipment</li> <li>- Remaining issues from validation</li> <li>- Calibration procedures</li> <li>- Quality management system</li> <li>- Involved personnel and responsibilities</li> <li>- Training and practice of the operational personnel</li> <li>- Implementation of the monitoring plan</li> <li>- Monitoring data management</li> <li>- Data uncertainty and residual risks</li> <li>- GHG emission reduction calculation</li> <li>- Procedural aspects of the verification</li> <li>- Maintenance</li> <li>- Environmental aspects</li> </ul>

The list of interviewees is included in chapter 7.4.

### 3.8. Draft verification reporting

On the basis of the desk review, the on-site visit, follow-up interviews and further background investigation the verification protocol is completed. This protocol together with a general project and procedural description of the verification and a detailed list of the verification findings form the draft verification report. This report is sent to the client for resolution of raised CARs, CLs and FARs.

### 3.9. Resolution of CARs, CLs and FARs

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

Corrective Action Requests (CARs) are issued, if:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;

- Issues identified in a FAR during validation or previous verifications requiring actions by the project participants to be verified during verification have not been resolved.

The verification team uses the term Clarification Request (CL), which is issued if:

- information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Forward Action Requests (FAR) indicate essential risks for further periodic verifications. Forward Action Requests are issued, if:

- the monitoring and reporting require attention and / or adjustment for the next verification period.

For a detailed list of all CARs, CLs and FARs raised in the course of the verification pl. refer to chapter 4.

### **3.10. Final reporting**

Upon successful closure of all raised CARs and CLs the final verification report including a positive verification opinion can be issued. In case not all essential issues could finally be resolved, a final report including a negative verification opinion is issued.

The final report summarizes the final assessments w.r.t. all applicable criteria.

### **3.11. Technical review**

Before submission of the final verification report a technical review of the whole verification procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the verification opinion and the topic specific assessments as prepared by the verification team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

### **3.12. Final approval**

After successful technical review an overall (esp. procedural) assessment of the complete verification will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

After this step the request for issuance can be started.

#### 4. VERIFICATION FINDINGS

In the following paragraphs the findings from the desk review of the monitoring report<sup>/MR/</sup>, the calculation spreadsheet<sup>/XLS/</sup>, PDD<sup>/PDD/</sup>, the Validation Report<sup>/VAL/</sup> and other supporting documents, as well as from the on-site assessment and the interviews are summarised.

The summary of CAR, CL and FAR issued are shown in Table 4-1:

**Table 4-1:** Summary of CAR, CL and FAR

Verification topic	No. of CAR	No. of CL	No. of FAR
A – Description of project activity	01	-	-
B – Implementation of project activity	02	-	-
C – Description of monitoring system	-	-	-
D – Data and parameters	01	-	-
E - Calculation of Emission Reductions	01	-	-
<b>SUM</b>	<b>05</b>		

The following tables include all raised CARs, CLs and FARs and the assessments of the same by the verification team. For an in depth evaluation of all verification items it should be referred to the verification protocols (see Annex).

Finding	A1		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding</b> <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	During desk review, verification team found following inconsistencies in the webhosted MR: <ol style="list-style-type: none"> <li>1. Description of duration of the monitoring period is not in line with the Annex 20 of EB 66 as the does not provide the information if the first and last days are included or not. Correction is sought</li> <li>2. The value of the estimated amount of GHG emission reductions is not correct for this monitoring period i.e. 396 days. Correction is sought</li> </ol>		



Finding	A1
	<ol style="list-style-type: none"> <li>3. The actual emission reduction obtained for the monitoring period is not consistent with the ER sheet. Correction is sought wherever applicable in the MR.</li> <li>4. Section A.4 of the MR must include all the tools referred therein by the methodology. Correction is sought.</li> <li>5. The details of the billing meter and cluster meters as per EB66 annex 20 is missing. Correction is sought.</li> </ol>
<p><b>Corrective Action #1</b> <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<ol style="list-style-type: none"> <li>1. Description of duration of the monitoring period is corrected in the revised version of MR.</li> <li>2. The value of estimated amount of GHG emission reduction has been corrected in the revised version of MR.</li> <li>3. The actual emission reduction has been made consistent with ER sheet in the revised version of MR.</li> <li>4. All tools referred therein by the methodology has been included in Section A.4 of the revised version of MR.</li> <li>5. The details of meters are mentioned in Appendix II of the MR.</li> </ol>
<p><b>DOE Assessment #1</b> <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<ol style="list-style-type: none"> <li>1. The duration of the monitoring period is now corrected in the revised MR. Hence, CAR is closed</li> <li>2. The estimated emission reduction is now corrected considering the actual monitoring period. Hence, CAR is closed.</li> <li>3. The actual emission reduction has been corrected. The value is now consistent in the ER sheet and MR. Hence, CAR is closed.</li> <li>4. The tools referred by the methodology is now included in the revised MR. Hence, CAR is closed.</li> <li>5. The details are checked by the assessment team with the calibration certificates. The details now forms the part of revised MR. Based on this revision CAR is closed.</li> </ol>
<p><b>Conclusion</b> <i>Tick the appropriate checkbox</i></p>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Finding	B1		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<p><b>Description of finding</b> <i>Describe the finding in unambiguous style; address the context (e.g. section)</i></p>	<p>During the onsite visit and discussion with PP, it was found that the calibration frequency of the cluster meter is not as per registered PDD. Appropriate correction is sought in this context.</p>		

Finding	B1
<p><b>Corrective Action #1</b> <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<p>The cluster meters will be calibrated once in a three years. The calibration frequency is not under the control of PP hence PP followed PRC changes which does not require EB approval.</p>
<p><b>DOE Assessment #1</b> <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>Assessment team found that the calibration frequency of the cluster meter is changed from annually to once in a three year. The letter issued/<sup>CAL</sup> by GETCO is checked by the assessment team and found that the claim made by PP is correct. To comply with the requirement of EB 70 Annex 2 Appendix 1 Para 5 (a), a PRC report is thus prepared and submitted.</p> <p>Moreover, assessment team checked the conservativeness of emission reduction calculation as a change of calibration frequency of the cluster meter. As per the registered PDD the source of net electricity exported to the grid are the share certificates issued by GETCO. The values from the share certificates are then used by the PP to calculate the emission reduction for the present verification. The value of net electricity exported to the grid is also cross checked with the invoices as per the requirement of the methodology and registered PDD. Hence, the calculation of emission reduction is conservative and correct.</p> <p>Based on the revision in the PDD version 7 dated 04/02/2013 and MR version 05 dated 21-02-2013, CAR is deemed closed.</p>
<p><b>Conclusion</b> <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the first periodic verification  <input type="checkbox"/> Additional action should be taken (finding remains open)  <input checked="" type="checkbox"/> The finding is closed</p>

Finding	B2		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<p><b>Description of finding</b> <i>Describe the finding in unambiguous style; address the context (e.g. section)</i></p>	<p>During the onsite visit and discussion with PP, it was found that there were no significant downtime (forced shutdown) occurred for this monitoring period except for the scheduled maintenance and operational breakdowns.</p> <p>However, section B.1 of the MR does not provide the details of breakdown occurred during the monitoring period. Appropriate correction is sought.</p>		
<p><b>Corrective Action #1</b> <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<p>The breakdown details has been included in Section B.1 of the revised version if MR.</p>		
<p><b>DOE Assessment #1</b> <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>The breakdown details are checked by the assessment team. There were no major breakdowns apart from scheduled maintenance for the present monitoring period. The details are now incorporated in section B.1 of the revised MR. Hence, CAR is closed.</p>		

Finding	B2
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

Finding	D1		
<b>Classification</b>	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding</b> <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	During desk review, the following inconsistencies were found in the section D of the webhosted MR:  The value of net electricity exported to the grid is not correct as per the emission reduction sheet. Appropriate corrections are required in the table and appendix II of the MR.		
<b>Corrective Action #1</b> <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	The value of net electricity exported to the grid has been corrected in the relevant section of revised version of MR.		
<b>DOE Assessment #1</b> <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The value of net electricity exported is now corrected in the revised MR. The value of net electricity exported is checked from the credit report and found correct <sup>CR/</sup> . The correction is also carried out in appendix II of the revised MR. Hence, CAR is closed.		
<b>Conclusion</b> <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the first periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	E1		
<b>Classification</b>	<input type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
<b>Description of finding</b> <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Following inconsistencies are found in the emission reduction calculation: <ol style="list-style-type: none"> <li>1. The net electricity exported to the grid and actual ER is not correct as per the emission reduction submitted.</li> <li>2. The comparison of actual emission reductions with estimates in registered PDD is not correct. The estimated ER is not correctly calculated as per the monitoring period i.e. 396 days and moreover, the actual ER is not correct as per the emission reduction sheet submitted.</li> </ol>		

Finding	E1
	<p>3. The delayed calibration factor is not applied correctly for the present verification. Appropriate correction is sought.</p> <p>Necessary corrections are required wherever applicable.</p>
<p><b>Corrective Action #1</b> <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i></p>	<p>1. The value of net electricity exported to the grid &amp; ER has been corrected in the revised version of MR.</p> <p>2. The value of actual ER has been corrected in the revised version of MR.</p> <p>3. The correction is done appropriately.</p>
<p><b>DOE Assessment #1</b> <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i></p>	<p>1. The value of net electricity exported and ER is being corrected. Hence, CAR is closed.</p> <p>2. The value of actual ER has been corrected. The actual and estimated ER is now calculated appropriately. Hence, CAR is closed.</p> <p>3. The delayed calibration factor is now applied appropriately in the revised emission sheet. For conservativeness the error is applied for complete January 2012, though the actual date of calibration was 17.01.2012. The approach is accepted by the assessment team and thus the actual emission reduction calculated for present verification is found appropriate.</p>
<p><b>Conclusion</b> <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input type="checkbox"/> Additional action should be taken (finding remains open)</p> <p><input checked="" type="checkbox"/> The finding is closed</p>

## 5. SUMMARY OF VERIFICATION ASSESSMENTS

The following paragraphs include the summary of the final verification assessments after all CARs and CLs are closed out. For details of the assessments pl. refer to the discussion of the verification findings in chapter 4 and the verification protocol (Annex 1).

### 5.1. Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity.

**Table 5-1:** Project Parties and project participants

Characteristic	Party	Project Participant
Non-Annex 1	India	Grid Connected Renewable Electricity Generation
Annex 1	NA	NA

### 5.2. Implementation of the project

The project activity is set up to produce clean power from the Wind Energy Converter. The Project harnesses renewable sources of energy in the region displacing non-renewable natural resources thereby ultimately leading to sustainable economic and environmental development. The operation of WTGs is emission free and hence no project emissions are produced during the lifetime of the project activity. The installed capacity of the project activity is 9.6MW. The project activity involves 12-wind energy converters (WECs) of Enercon make (800 kW E-53)<sup>/TS/</sup> with internal electrical lines connecting the project activity with local evacuation facility.

All necessary monitoring instruments are installed in this project activity. The measuring devices are well known and state of the art. All required instruments and operating procedures for the same have been implemented in an appropriate manner as per the registered PDD. Calibration reports<sup>/CAL/</sup> of the energy meters covering the reported monitoring period were verified for their frequency and traceability to industry standards. Calibration records of all installed meter were checked during the assessment and found satisfactory.

During the verification a site visit was carried out<sup>/IM01/</sup>. On the basis of this site visit and the reviewed project documentation it can be confirmed that w.r.t. the realized technology, the project equipments, as well as the monitoring and metering

equipment, the project has been implemented and operated as described in the registered PDD.

Moreover, CARB1 was also raised during the verification process and closed successfully.

Nevertheless, during the verification process CARB2 was raised related to inclusion of breakdown and maintenance records in the MR. In reply to the CAR, PP has incorporated the records in the revised MR<sup>MR/,BR/</sup> which is checked by the assessment team and found correct. Hence, CAR was closed.

### 5.3. Project history

During the validation the validating DOE might have raised issues that could not be closed or resolved during the validation stage. For this purpose FARs might have been raised. No such issues were identified for this project.

Furthermore as this is the 1<sup>st</sup> periodic verification no issues from former verifications are to be considered.

### 5.4. Post registration changes

A post registration changes regarding the calibration frequency of the cluster meters have been observed during the monitoring period. For further details please refer to PRC report.

### 5.5. Compliance with the monitoring plan

During the on-site visit, the verification team checked the implementation of monitoring system covering all the monitoring parameters as per the monitoring plan. The monitoring system and all applied procedures are in compliance to the registered PDD<sup>PDD/</sup> and applied methodology.

### 5.6. Compliance with the monitoring methodology

The monitoring system is in compliance with the applied monitoring methodology (AMS.I.D version 16).

### 5.7. Monitoring parameters

During the verification all relevant monitoring parameters (as listed in chapter B.7.1 of the PDD) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER

calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist.

Moreover, the major parameter as per the requirement of the methodology and PDD is net electricity exported to the grid from the project activity. Net electricity exported is thus the basis of emission reduction calculation. The value of net electricity exported is directly sourced from the monthly certificates<sup>/CR/</sup> for share of electricity generated issued by GETCO/GEDA. The net electricity as certified by GETCO/GEDA is also cross checked from the invoices<sup>/INV/</sup> as required by the methodology. Assessment team found the values to be consistent and thus conclude that the net electricity exported as presented in the ER sheet and MR is correct.

In the state of Gujarat there are number of WECs connected to a single feeder. Hence, to calculate the net electric exported by the WECs of the project activity alone, the state utility uses an apportioning procedure which has been described in section B.7.2 of the PDD. The apportioning is carried out by the state utility and the PP has no role in this calculation. The procedure was verified by checking the same with the personnel in the sub-station during the site visit and was found to be correct.

As per the registered PDD, the monitoring for the project occurs in 2 steps:

- Cluster metering at 33 KV sub-station
- Metering of main meter at Enercon 220 KV sub-station which is connected to Moti paneli Sub-station of GEDA (Gujarat State Energy Development Agency). However main meter at utility substation is only used in emergency case (failure of 220 KV sub-station).

The meters at the above location are sealed and maintained by GEDA/GETCO. GEDA/GETCO provides a copy of the calibration certificate for the main meter at Enercon Metering sub-station (220 KV)<sup>/CAL/</sup>. The cluster meters are calibrated once in three years. The installation certificates<sup>/CAL/</sup> of the cluster meters are checked by the assessment team and found correct.

The registered PDD mentions that all calibration shall be conducted at an annual frequency. However in the monitoring period it is observed that calibration are carried out by GEDA/GETCO for the 220 KV substation meter annually, however the cluster meter will be calibrated once in three years. The letter<sup>/CAL/</sup> from GEDA regarding the change of calibration frequency of the cluster meter is checked by the assessment team and found correct. For further information on the change in calibration frequency of cluster meters please refers also PRC report. The value of net electricity exported to the grid was not correctly presented in section D of the MR<sup>/MR/,XLS/</sup>. Based on this issue CARD1 was raised during the verification process. The value is then rectified and presented accurately is section D of the revised MR. Hence; CAR is closed based on this revision.

After appropriate corrections were carried out by the project participant it can be confirmed that all monitoring parameters have been measured / determined without material misstatements and in line with all applicable standards and relevant requirements.

## 5.8. Monitoring report

A draft monitoring report was submitted to the verification team by the project participants. The team has made this report publicly available prior to the start of the verification activities. No comments were received.

During the verification, mistakes and needs for clarification were identified. The PP has carried out the requested corrections so that it can be confirmed that the Monitoring report is complete and transparent and in accordance with the registered PDD and other relevant requirements.

## 5.9. Sampling

### 5.9.1. Implementation of the sampling plan

No sampling was required to determine the monitored parameters.

### 5.9.2. Sampling approaches during verification

No sampling approaches were taken during the verification.

## 5.10. ER Calculation

The emission reduction calculation as presented in the registered PDD is followed in actual for the present verification. The formula to calculate the baseline emission is correct and as per the registered methodology and PDD. As the project is a wind project, thus the project emission is negligible for the project. Moreover, as there is no transfer of technology, thus leakage emission is also considered zero as required by the registered methodology.

However, during the verification mistakes in the ER calculation were identified. Corresponding CARE1 were raised. A revised ER calculation was prepared by the PP<sup>/XLS/</sup> and presented to the verification team. The value of emission reduction is now consistent in the ER sheet and revised MR<sup>/MR/</sup>. All raised issues were addressed appropriately so that the corresponding CAR could be closed out. Thus it is confirmed that the ER calculation is overall correct.

## 5.11. Quality Management

Quality Management procedures for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel in the framework of this CDM project activity have been defined. The same is in line with the procedures layed out in the registered PDD. The procedures defined can be assessed as appropriate for the purpose. No significant deviations thereof have been observed during the verification.

## 5.12. Actual emission reductions during the first commitment period and the period from 1 January 2013 onwards

The MR includes actual ER values achieved up to 30-09-2012

**Table 5-2:** Emission reductions before and after the end of 2012

	until 2012-12-31 <sup>1)</sup>	from 2013-01-01 <sup>1)</sup>	Sum
Emission reductions [tCO <sub>2e</sub> ]	17,732	0	17,732

<sup>1)</sup> Both days included

## 5.13. Comparison with ex-ante estimated emission reductions

The MR includes a comparison of the calculated actual emission reductions with the ex-ante calculated values in the registered PDD. However, the calculation of estimated value and actual value was not correct. Considering this issue CARE1 was raised during the verification process. The values are now correctly depicted in the revised MR. Hence, based on this revision CAR is closed.

The calculated value was found to be proportionally lower than the ex-post determined value, thus no further justification was required.

## 5.14. Overall Aspects of the Verification

All necessary and requested documentation was provided by the project participants so that a complete verification of all relevant issues could be carried out.

Access was granted to all installations of the plant which are relevant for the project performance and the monitoring activities.

No issues have been identified indicating that the implementation of the project activity and the steps to claim emission reductions are not compliant with the UNFCCC criteria and relevant guidance provided by the COP/CMP and the CDM EB (clarifications and/or guidance).

## 5.15. Hints for next periodic Verification

No FAR is raised for subsequent verification

## 6. VERIFICATION AND CERTIFICATION STATEMENT

Vish Wind Infrastructre LLP & J.N. Investment & Trading Co. Private Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: “”, with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to installation of renewable wind power project. This verification covers the period from 2011-09-01 to 2012-09-30(including both days).

In the course of the verification 05 Corrective Action Requests (CAR) and 0 Clarification Requests (CR) were raised and successfully closed. Furthermore 0 FARs are raised to improve the monitoring system in the future. The verification is based on the draft monitoring report, revised monitoring report, the monitoring plan as set out in the registered PDD, the validation report, emission reduction calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

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

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., AMS.I.D version 16
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the 1<sup>st</sup> periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: 17,732 t CO<sub>2e</sub>

Mumbai, 2013-02-21



Mr. Sukanta Das

TÜV NORD JI/CDM Certification  
Program

Verification Team Leader

Essen, 2013-02-21



Mr. Ingo Klein

TÜV NORD JI/CDM Certification  
Program

Final Approval

## 7. REFERENCES

**Table 7-1:** Documents provided by the project participant(s)

Reference	Document																																		
/BR/	Breakdown and maintenance records for the project activity during the monitoring period																																		
/CC/	Commissioning certificates dated 27/09/2010, 29/09/2010 and 30/09/2010 for the installed WTGs																																		
/CR/	Credit reports (=share certificate) issued by GEDA for the complete monitoring period																																		
/CAL/	Calibration certificates of the meters installed onsite for the complete monitoring period Details for 220KV sub-station meter:																																		
	<table border="1"> <thead> <tr> <th rowspan="2">Name of Substation</th> <th rowspan="2">Accuracy class</th> <th rowspan="2">Calibration agency</th> <th rowspan="2">Main Meter/GE TCO Meter</th> <th colspan="3">Calibration</th> </tr> <tr> <th>2010</th> <th>2012</th> <th>Due on</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Sadodar</td> <td>0.2</td> <td>Pachim Gujarat</td> <td>GJB 01470</td> <td>22/01/2010</td> <td>17/01/2012</td> <td>16/01/2013</td> </tr> <tr> <td>0.2</td> <td>Vij corporation limited</td> <td>GJU 04175</td> <td>22/01/2010</td> <td>17/01/2012</td> <td>16/01/2013</td> </tr> <tr> <td>0.2</td> <td></td> <td>GJU 04176</td> <td>22/01/2010</td> <td>17/01/2012</td> <td>16/01/2013</td> </tr> <tr> <td>0.2</td> <td></td> <td>KAB11082</td> <td>29/05/2010</td> <td>17/01/2012</td> <td>16/01/2013</td> </tr> </tbody> </table>	Name of Substation	Accuracy class	Calibration agency	Main Meter/GE TCO Meter	Calibration			2010	2012	Due on	Sadodar	0.2	Pachim Gujarat	GJB 01470	22/01/2010	17/01/2012	16/01/2013	0.2	Vij corporation limited	GJU 04175	22/01/2010	17/01/2012	16/01/2013	0.2		GJU 04176	22/01/2010	17/01/2012	16/01/2013	0.2		KAB11082	29/05/2010	17/01/2012
Name of Substation	Accuracy class					Calibration agency	Main Meter/GE TCO Meter	Calibration																											
		2010	2012	Due on																															
Sadodar	0.2	Pachim Gujarat	GJB 01470	22/01/2010	17/01/2012	16/01/2013																													
	0.2	Vij corporation limited	GJU 04175	22/01/2010	17/01/2012	16/01/2013																													
	0.2		GJU 04176	22/01/2010	17/01/2012	16/01/2013																													
	0.2		KAB11082	29/05/2010	17/01/2012	16/01/2013																													
	Details for the cluster meters:																																		

Unique Identification No.	Cluster Meter	Commissioning Date <sup>1</sup>	Accuracy Class	Make	Calibration Frequency
EIL/800/10-11/1822	GJU60941	27/09/2010	0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1823			0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1824			0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1825	GJU60942	27/09/2010	0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1887	GJU60940	29/09/2010	0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1888			0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1889	10058384	29/09/2010	0.2s	L&T	Once in 3 year
EIL/800/10-11/1890	10059202	30/09/2010	0.2s	L&T	Once in 3 year
EIL/800/10-11/1891	GJU60945	30/09/2010	0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1892			0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1893			0.2s	Secure Meter	Once in 3 year
EIL/800/10-11/1894			0.2s	Secure Meter	Once in 3 year

<sup>1</sup> The meter was commissioned on the date mentioned in the table, however the meter was tested on:  
GJU60941, GJU60942, GJU60945 tested on 03/09/2010  
10058384 tested on 20/03/2010  
10059202 tested on 24/08/2010

	Letter provided by the GETCO for the change of frequency of the cluster meter to once in a three year
<b>/ISO/</b>	ISO certificate (9001:2008) for the project site
<b>/INV/</b>	Monthly invoices raised for the complete monitoring period.
<b>/MR/</b>	<ol style="list-style-type: none"> <li>1. MR version 01 dated 2012-10-08 based on which the verification is carried out</li> <li>2. MR version 02 dated 2012-11-09</li> <li>3. MR Version 03 dated 2012-01-25</li> <li>4. MR version 04 dated 08-02-2013</li> <li>5. MR Version 05 dated 21-02-2013 based on which the verification opinion is provided.</li> </ol>
<b>/OR/</b>	Specific onsite organization chart for the JI/CDM project activity
<b>/PPA/</b>	<p>Power purchase agreement(PPA) signed are as follows:</p> <ol style="list-style-type: none"> <li>1. PPA between J.N. Investment &amp; Trading Co. Private Limited and Gujarat Urja Vikas Nigam Limited dated 2010-08-05</li> <li>2. PPA between Vish Wind Infrastructure LLP and Gujarat Urja Vikas Nigam Limited dated 2010-09-21</li> </ol>
<b>/PDDre/</b>	Project Design Document for CDM project: “Bundled Wind power project in Jamnagar, Gujarat” version 07, dated 2013-02-04
<b>/SLD/</b>	Electricity connection diagram to the grid showing metering location
<b>/TS/</b>	Technical specification of the installed onsite WTGs
<b>/TR/</b>	Training manual, plan & records
<b>/XLS/</b>	ER calculation spreadsheet

**Table 7-2:** Background investigation and assessment documents

Reference	Document
<b>/AMS.I.D/</b>	AMS.I.D version 16, “Fehler! Kein Text mit angegebener Formatvorlage im Dokument.”
<b>/CPM/</b>	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)

Reference	Document
<b>/GLMP/</b>	Guidelines for completing the monitoring report form (EB 66 Annex 20)
<b>/GLOSS/</b>	Glossary of CDM terms version 06
<b>/KPI/</b>	Kyoto Protocol (1997)
<b>/MA/</b>	Decision 3/CMP. 1 (Marrakesh – Accords)
<b>/MRT/</b>	Monitoring Report Form (F-CDM-MR) Version 2.0
<b>/PDD/</b>	Project Design Document for CDM project: “Bundled Wind power project in Jamnagar, Gujarat ” version 06, dated 2011-06-23
<b>/PS/</b>	Project Standard (Version 02.1, EB 70 Annex 2)
<b>/VAL/</b>	Validation Report for CDM project “” version 03, dated 2011-06-24
<b>/VVS/</b>	UNFCCC Validation and Verification Standard (Version 3.0, EB 70, Annex 3)

**Table 7-3:** Websites used

Reference	Link	Organisation
<b>/unfccc/</b>	<a href="http://cdm.unfccc.int">http://cdm.unfccc.int</a>	UNFCCC
<b>/geda/</b>	<a href="http://www.geda.org.in">www.geda.org.in</a>	Gujarat Electricity development agency
<b>/gerc/</b>	<a href="http://www.gercin.org">www.gercin.org</a>	Gujarat electricity regulatory commission.
<b>/moef/</b>	<a href="http://envfor.nic.in">envfor.nic.in</a>	Ministry of environment and forest
<b>/ceal/</b>	<a href="http://www.cea.nic.in">www.cea.nic.in</a>	Central electricity authority
<b>/ipcc/</b>	<a href="http://www.ipcc-nggip.iges.or.jp">www.ipcc-nggip.iges.or.jp</a>	IPCC publications

**Table 7-4:** List of interviewed persons

Reference	Moi <sup>1</sup>		Name	Organisation / Function
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Jignesh Faldu	Deputy Manager (service), EIL
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Amit Dobariya	Asst. Manager (Service),EIL
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Sajil. P.	Asst. Manager,EIL
/IM01/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	Poorvi Joshi	CDM corporate, EIL (=Enercon India (Pvt) ltd).

<sup>1)</sup> Means of Interview: (Telephone, E-Mail, Visit)

# ANNEX

- A1:** Verification Protocol
- A2:** Statements of Competence of  
involved Personnel

## ANNEX 1: VERIFICATION PROTOCOL

**Table A-1:** GHG calculation procedures and management control testing / detailed audit testing of residual risk areas and random testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i> )
<b>Raw data generation</b>				
<ul style="list-style-type: none"> <li>• Installation of measuring equipment</li> <li>• Dysfunction of installed equipment</li> <li>• Maloperation by operational personnel</li> <li>• Downtimes of equipment</li> <li>• Exchange of equipment</li> <li>• Change of measurement equipment characteristic</li> <li>• Insufficient accuracy</li> <li>• Change of technology</li> <li>• Accuracy of values supplied by Third Parties</li> </ul>	<ul style="list-style-type: none"> <li>• Installation of modern and state of the art equipment</li> <li>• Process control automation</li> <li>• Internal data review</li> <li>• Regular visual inspections of installed equipment</li> <li>• Only skilled and trained personnel operates the relevant equipment</li> <li>• Daily raw data checks</li> <li>• Immediate exchange of dysfunctional equipment</li> <li>• Stand-by duty is organized</li> <li>• Training</li> <li>• Internal audit procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate installation / operation of the monitoring equipment</li> <li>• Inadequate exchange of equipment</li> <li>• Change of personnel</li> <li>• Undetected measurement errors</li> <li>• Inappropriateness of Management system procedures w.r.t. monitoring plan requirements (e.g. substitute value strategies)</li> <li>• Non-application of management system procedures</li> <li>• Insufficient accuracy</li> <li>• Inappropriate QA/QC measures of Third Parties</li> </ul>	<ul style="list-style-type: none"> <li>• Site – visit</li> <li>• Check of equipment</li> <li>• Check of technical data sheets</li> <li>• Check of suppliers information / guarantees</li> <li>• Check of calibration records, if applicable</li> <li>• Check of maintenance records</li> <li>• Counter-check of raw data and commercial data</li> <li>• Check of CDM management system</li> <li>• Check of CDM related procedures</li> <li>• Application of CDM management system procedures</li> <li>• Check of trainings</li> </ul>	<ul style="list-style-type: none"> <li>• <b>See Table A-2</b></li> </ul>



Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i> )
	<ul style="list-style-type: none"> <li>Internal check of QA/QC measures of involved Third Parties</li> </ul>		<ul style="list-style-type: none"> <li>Check of responsibilities</li> <li>Check of QA/QC documentation / evidences of involved Third Parties</li> </ul>	
<b>Raw data collection and data aggregation</b>				
<ul style="list-style-type: none"> <li>Wrong data transfer from raw data to daily and monthly aggregated reporting forms</li> <li>IT Systems</li> <li>Spread sheet programming</li> <li>Manual data transmission</li> <li>Data protection</li> <li>Responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>Cross-check of data</li> <li>Plausibility checks of various parameters.</li> <li>Appropriate archiving system</li> <li>Clear allocation of responsibilities</li> <li>Application of CDM Management system procedures</li> <li>Usage of standard software solutions (Spreadsheets)</li> <li>Limited access to IT systems</li> <li>Data protection</li> </ul>	<ul style="list-style-type: none"> <li>Unintended usage of old data that has been revised</li> <li>Incomplete documentation</li> <li>Ex-post corrections of records</li> <li>Ambiguous sources of information</li> <li>Non-application of management system procedures</li> <li>Manual data transfer mistakes</li> <li>Unintended change of spread sheet programming or data base entries</li> <li>Problems caused by</li> </ul>	<ul style="list-style-type: none"> <li>Check of data aggregation steps</li> <li>Counter-calculation</li> <li>Data integrity checks by means of graphical data analysis and calculation of specific performance figures</li> <li>Check of management system certification</li> <li>Check of data archiving system</li> <li>Check of application of Management system procedures</li> </ul>	<ul style="list-style-type: none"> <li><b>See Table A-2</b></li> </ul>



Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i> )
	procedures	updating/upgrading or change of applied software		
<b>Other calculation parameters</b>				
<ul style="list-style-type: none"> <li>Emission factors, oxidation factors, coefficients</li> </ul>	<ul style="list-style-type: none"> <li>The values and data sources applied are defined in the PDD and monitoring plan</li> </ul>	<ul style="list-style-type: none"> <li>Unintended or intended Modification of calculation parameters</li> <li>Wrong application of values</li> <li>Misinterpretations of the applied methodology and/ or the PDD</li> <li>Missing update of applicable regulatory framework (e.g. IPCC values)</li> </ul>	<ul style="list-style-type: none"> <li>Update-check of regulatory framework</li> <li>Countercheck of the applied MP in the MR against the methodology and the PDD</li> </ul>	<ul style="list-style-type: none"> <li><b>See Table A-2</b></li> </ul>
<b>Calculation Methods</b>				
<ul style="list-style-type: none"> <li>Applied formulae</li> <li>Miscalculation</li> <li>Mistakes in spreadsheet calculation</li> </ul>	<ul style="list-style-type: none"> <li>Advanced calculation and reporting tools</li> <li>A CDM coordinator is in charge of the CDM related calculations</li> <li>Usage of tested / counterchecked Excel</li> </ul>	<ul style="list-style-type: none"> <li>The danger of miscalculation can only be minimized.</li> </ul>	<ul style="list-style-type: none"> <li>Countercheck on the basis of own calculation.</li> <li>Spread sheet walk-through.</li> <li>Plausibility checks</li> <li>Check of plots</li> </ul>	<ul style="list-style-type: none"> <li><b>See Table A-2</b></li> </ul>



Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i> )
	spreadsheets • Involvement of external consultants			
<b>Monitoring reporting</b>				
<ul style="list-style-type: none"> <li>• Data transfer to the author of the monitoring report</li> <li>• Data transfer to the monitoring report</li> <li>• Unintended use of outdated versions</li> </ul>	<ul style="list-style-type: none"> <li>• An experienced CDM consultant is responsible for monitoring reporting.</li> <li>• CDM QMS procedures are defined</li> </ul>	<ul style="list-style-type: none"> <li>• The danger of data transfer mistakes can only be minimized</li> <li>• Inappropriate application of QMS procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Counter check with evidences provided.</li> <li>• Audit of procedure application</li> </ul>	<ul style="list-style-type: none"> <li>• <b>See Table A-2</b></li> </ul>



**Table A-2:** (Project specific) Periodic Verification Checklist

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<b>A. Description of the project activity</b>				
<p><b>A.1. Purpose and general description of the project activity</b> ( EB 70, Annex 11, A.1)</p> <p>Check if section A.1 of the MR includes the following:</p> <ul style="list-style-type: none"> <li>- Purpose of the PA and the measures taken to reduce GHG emissions</li> <li>- Brief description of the installed technology and equipment</li> <li>- Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc.)</li> <li>- Total emission reductions achieved in this monitoring period</li> </ul>	<p>/MR/ /PDD/ /IM01/ /TS/ /CC/</p>	<p>The verification team has checked section A.1 of the MR and confirms that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Purpose of the PA and the measures taken to reduce GHG emissions</li> <li><input checked="" type="checkbox"/> Brief description of the installed technology and equipments</li> <li><input checked="" type="checkbox"/> Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc)</li> <li><input type="checkbox"/> Total emission reductions achieved in this monitoring period</li> </ul> <p>In this context the following findings have been identified: CARA1 is raised during the verification process as the actual emission reduction calculated was not correct.</p>	CARA1	OK
<p><b>A.2. Location of project activity</b> ( EB 70, Annex 11, A.2)</p> <p>Check if section A.2 of the MR reflects correctly the following:</p> <ul style="list-style-type: none"> <li>- Host Party(ies)</li> <li>- Region / State / Province etc.</li> </ul>	<p>/MR/ /PDD/ /IM01/</p>	<p>The verification team has checked section A.2 of the MR and confirms by means of comparison with the information given in the PDD and information gathered during the site visit that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Host Party(ies)</li> <li><input checked="" type="checkbox"/> Region / State / Province</li> </ul>	OK	OK



<ul style="list-style-type: none"> <li>- City / Town / Community etc.</li> <li>- Physical / geographical location (e.g. Latitude and Longitude)</li> </ul>		<input checked="" type="checkbox"/> City / Town / Community <input checked="" type="checkbox"/> Physical / Geographical location In this context the following findings have been identified: N/A		
<p><b>A.3. Parties and Project Participants ( EB 70, Annex 11, A.3)</b></p> <p>Check if section A.3 of the MR includes the following:</p> <ul style="list-style-type: none"> <li>- All PPs as displayed on the UNFCCC website</li> <li>- A correctly filled table as per the MR template</li> </ul>	/MR/ /unfccc/ /PDD/	The verification team has checked section A.3 of the MR as well as the UNFCCC website and confirms that: <input checked="" type="checkbox"/> all PPs as displayed on the project related UNFCCC website are correctly listed <input checked="" type="checkbox"/> the table as per the template MR has been correctly filled In this context the following findings have been identified: N/A	OK	OK
<p><b>A.4. Reference of applied methodology ( EB 70, Annex 11, A.4)</b></p> <p>Check if section A.4 of the MR correctly describes / includes the following:</p> <ul style="list-style-type: none"> <li>- Reference to the applicable version of the methodology</li> <li>- Reference to the applicable version(s) of relevant methodological tools</li> <li>- Relevant EB decisions, if applicable</li> </ul>	/MR/ /PDD/ /unfccc/	The verification team has checked section A.4 of the MR and confirms by means of comparison with the information given in the PDD and displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: <input checked="" type="checkbox"/> Number, title and version of the applicable CDM Methodology <input type="checkbox"/> Name and version of applicable CDM methodological tools <input checked="" type="checkbox"/> Relevant EB decisions In this context the following findings have been identified:  The referred tool by the methodology is not mentioned in the web hosted PDD. CAR A1 is thus raised.	CARA1	OK



<p><b>A.5. Crediting period of project activity ( EB 70, Annex 11, A.5)</b></p> <p><i>Check if section A.5 of the MR correctly includes the following:</i></p> <ul style="list-style-type: none"> <li>- <i>Start date of the crediting period. In this context please check, if applicable, whether post registration changes to the start date have been accepted by the EB.</i></li> <li>- <i>Length and type of the crediting period</i></li> </ul>	<p>/MR/ /unfccc/</p>	<p>The verification team has checked section A.5 of the MR and confirms by means of comparison with the information displayed on the UNFCCC website that the information provided is complete and correct with regards to the following:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Start date of the crediting period.</li> <li><input checked="" type="checkbox"/> Type and length of the crediting period</li> </ul> <p>In this context the following findings have been identified: N/A</p>	<p>OK</p>	<p>OK</p>
<p><b>A.6. Publication of the Monitoring Report ( VVS, Version 03.0, 207)</b></p> <p><i>Check if the monitoring report has been made publicly available on the UNFCCC website before the verification commenced. Check if comments have been received and if yes, how they have been addressed.</i></p>	<p>/unfccc/</p>	<p>The verification team has ensured and confirms by means of checking the respective project information on the UNFCCC website that:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> The draft monitoring report, as received from the project participants, has been made publicly available prior to the start of the verification activities.</li> <li><input checked="" type="checkbox"/> No comments have been received.</li> </ul> <p>In this context the following findings have been identified: N/A</p>	<p>OK</p>	<p>OK</p>
<p><b>A.7. Compliance with standardized format of the Monitoring Report (VVS Version 03, 212 e)</b></p> <p><i>Check (only) if the latest applicable MR template has been used. For compliance assessment with the MR guideline pl. refer to the respective MR sections.</i></p>	<p>/MRT/ /MR/</p>	<p>The verification team has checked all sections of the MR and confirms by means of comparison with the MR template that:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> the standardized MR template has been used</li> </ul> <p>In this context the following findings have been identified:</p>	<p>OK</p>	<p>OK</p>



<b>B. Implementation of project activity</b>				
<p><b>B.1. Description of implemented registered project activity ( EB 70 Annex 11, B.1)</b></p> <p><i>Check if section B.1 of the MR correctly describes / includes the following:</i></p> <ul style="list-style-type: none"> <li>- <i>Implementation status of the PA</i></li> <li>- <i>Detailed description of installed technology(ies) / technical processes and equipment applied</i></li> <li>- <i>Diagrams (where appropriate)</i></li> </ul>	<p>/MR/ /PDD/ /PS/ /IM01/ /CC/ /TS/</p>	<p>The verification team has checked section B.1 of the MR and confirms by means of comparison with the information given in the PDD, the project standard and information gathered during the site visit that:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> the description of the implementation status of the PA is in line with the applicable provisions of the project standard</li> <li><input checked="" type="checkbox"/> an appropriate description of the installed technology(ies), technical process and equipment incl. diagrams, where applicable, has been included</li> </ul> <p>In this context the following findings have been identified: N/A</p>	<p>OK</p>	<p>OK</p>
<p><b>B.1.1. Initial project implementation ( VVS, Version 03.0; § 225 a, 226)</b></p> <p><i>Assess whether the project has been implemented and operated as per the registered PDD and are all physical features of the project in place?</i></p> <p><i>Further focus on the potential phase wise implementation and check the reporting on the corresponding status and starting dates accordingly.</i></p> <p><i>Check if the project is still in compliance with the applicability conditions of the methodology.</i></p> <p><i>Also, discuss – necessity of PRC notifications / approvals</i></p>	<p>/IM01/ /PDD/ /CC/ /TS/</p>	<p><i>Description:</i> During the onsite visit and subsequent document review it was verified that the project is implemented as well as it is operated as described in the PDD. All the physical features as described in the registered PDD are implemented as per the registered PDD. Further the project is in compliance with the applicability conditions of the methodology. However, a post registration change is required due to change of calibration frequency of cluster meters. For further information please refer to B.2 of the MR and PRC report. Based on this issue CARB1 was raised during the validation process.</p> <p><i>Verifier’s action:</i> During the site visit and subsequent interview with the client the assessment team found out that the project was implemented as per the registered PDD. Assessment team also checked the technical specification and commission report onsite and found that the features as described in the registered PDD are well implemented onsite. However, CAR was raised.</p> <p><i>Conclusion:</i> PRC regarding change of calibration frequency of</p>	<p>CARB1</p>	<p>OK</p>



		cluster meters is required. CARB1 is raised accordingly.		
<p><b>B.1.2. Technical equipment changes</b>  <b>-(VVS Version 03; § 225 a, 226)</b></p> <p><i>Check if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period. Further ensure that consistent notations of key equipment (meters etc.) in PDD, MR and calculation spreadsheet are applied</i></p> <p><i>Consider e.g. interviews with operational personnel, QMS records, maintenance records, instrument specifications.</i></p> <p><i>In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission reduction calculation.</i></p> <p><i>In case of post registration changes pl. refer to chapter B.2.</i></p>	<p>/IM01/                  /PDD/                  /MR/</p>	<p><i>Description:</i> The technical equipment as mentioned in the registered PDD is implemented onsite. The key equipment like the WTGs and meters are installed as per the details mentioned in the registered PDD.</p> <p><i>Verifier’s action:</i> During the site visit it was confirmed that the equipment details as mentioned in the registered PDD is correct. The same is checked from the technical specification submitted by the manufacturer.</p> <p><i>Conclusion:</i> There is no change in the technical equipment envisaged for the present monitoring period.</p>	<p>OK</p>	<p>OK</p>
<p><b>B.1.3. Operation of the project activity</b>  <b>-(VVS Version 03; § 225 a, 226)</b></p> <p><i>Check if relevant operation modes of the project activity have been exchanged or modified during the monitoring period.</i></p> <p><i>Consider e.g. interviews with operational personnel, operation log sheets, data management system records.</i></p> <p><i>In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring</i></p>	<p>/IM01/                  /PDD/                  /TS/                  /CC/</p>	<p><i>Description:</i></p> <p>The project is in line with the registered PDD in terms of operation. No technical equipment is changed onsite after the registration of the project activity. The data management procedure is as per the procedure mentioned in the CDM manual. Moreover, as the company is ISO certified, hence the management system is as per the ISO requirement. All the QA/QC procedures are as per the monitoring plan of the registered PDD.</p> <p><i>Justification of evidences:</i> During the verification site visit and subsequent interview with the operational Personnel it was verified that no change in the operation of the equipment is</p>	<p>OK</p>	<p>OK</p>



<p><i>report and the emission reduction calculation.</i></p> <p><i>In case of post registration changes pl. refer to chapter B.2.</i></p>		<p>observed. Moreover, the features of the technical equipment as mentioned in the registered PDD are same as checked from the technical specifications and commissioning report.</p> <p><i>Conclusion:</i></p> <p>All the operation modes are as per the registered PDD. During the onsite visit the subsequent documents are checked and found ok.</p>		
<p><b>B.1.4. Incidents</b> <b>(VVS version 03; § 225 a, 226)</b></p> <p><i>Identify if there have been any significant incidents, deviant operation modes and / or downtimes of the equipment?</i></p> <p><i>Consider e.g. interviews with operational personnel, operational log sheets, analysis of performance data.</i></p>	<p>/IM01/ /BR/</p>	<p><i>Description:</i> During the onsite visit it was found that there were some shutdowns due to grid problem except for the scheduled maintenance and break down. However, CARB2 was raised during the verification process.</p> <p><i>Verifier's action:</i> The break down records was checked by the assessment team. CAR B2 was raised</p> <p><i>Conclusion:</i> CARB2</p>	<p>CARB2</p>	<p>OK</p>
<p><b>B.1.5. Legislation</b></p> <p>Find out – esp. in the context of methodological requirements - whether relevant legislation with effect on the project activity in the host country has been changed.</p> <p>Assess, in case of changes, whether consequences for the PA with regard to relevant CDM requirements have been accounted for.</p> <p>In case of changes data sources shall be referenced.</p>	<p>/IM01/ /PPA/ /cea/ /moef/</p>	<p><i>Description:</i> The legislation has not changed w.r.t to Wind power projects in the state of Gujarat. Moreover the national/sectoral regulations were verified from Ministry of Environment and Forest<sup>/MoEF/</sup> and Central Electricity Authority.<sup>/CEA/</sup>. Though there were no changes in the regulation which can affect the emission reduction of the project activity.</p> <p><i>Justification of evidences:</i></p> <p>PPA has been signed already and there is no change in PPA. The legislation for projects is as per the registered PDD.</p> <p><i>Conclusion:</i></p> <p>No change in the legislation for the project activity as per the</p>	<p>OK</p>	<p>OK</p>



		host country requirement after the implementation of the project activity. The power purchase agreement is checked by the assessment team and found that there was no change in the legislation for the project activity.		
<p><b>B.1.6. Open issues from validation</b>  <b>-(VVS version 03; § 213)</b></p> <p><i>Check (esp. in case of 1<sup>st</sup> periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR)?</i></p>	/VAL/	<input checked="" type="checkbox"/> There were no open issues addressed in the validation report <input type="checkbox"/> All open issues from the validation have been appropriately addressed. <input type="checkbox"/> The following issues related to the validation have not yet been appropriately addressed: NA	OK	OK
<p><b>B.1.7. Open issues from previous verification</b>  <b>-(VVS version 03; §§ 213; 284 h)</b></p> <p><i>Check in case of further periodic verifications whether there are any open issues indicated in previous verification reports (FAR) and take into consideration the guidance as specified in VVS.</i></p>	/VER/	<input checked="" type="checkbox"/> There were no open issues addressed in the previous verification report <input type="checkbox"/> All open issues from the previous verification have been appropriately addressed. <input type="checkbox"/> The following issues related to the previous verification have not yet been appropriately addressed: This is the 1 <sup>st</sup> periodic verification and thus the above points are not applicable.	OK	OK
<b>B.2. Post registration changes</b>				
<p><b>B.2.1. Are post registration changes applicable to the proposed project activity?</b></p>	/IM01/ /PDD/ /MR/ /CC/ /PPA/	<input type="checkbox"/> No, by means of site visit, document check and interview it could be verified that the project is implemented and operated in line with the registered PDD and the applied methodology. <i>(Please proceed with section C)</i> <input checked="" type="checkbox"/> Yes, post registration changes have been identified and are assessed in detail in the subsequent steps. <i>(Please proceed</i>	OK	OK



<p><b>B.2.2. Temporary deviations from the registered monitoring plan or applied methodology (TDfrMP; TDfMM)</b>  <b>(EB 70, Annex 11, B.2.1; VVS, Version 03.0; §§ 251 - 256))</b></p> <p><i>Indicate whether any temporary deviations have been applied during this monitoring periods.                  In cases where approval has been sought from the EB please provide reference.                  If applied, provide a description of the deviation(s). This should include 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. Indicate if the deviation will lead to a reduction in the accuracy and if so, which conservative assumptions and discount factors have been applied.                  For deviation(s) that require prior approval by the Board, include the date of approval and reference number.</i></p>	<p>/PS/ /unfccc/</p>	<p>with B.2.2.)</p> <table border="1"> <tr> <td><input checked="" type="checkbox"/></td> <td colspan="2">No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period</td> </tr> <tr> <td><input type="checkbox"/></td> <td colspan="2">The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC</td> </tr> <tr> <td rowspan="4">1</td> <td>Title</td> <td></td> </tr> <tr> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref. No.</td> <td></td> </tr> <tr> <td rowspan="4">2</td> <td>Title</td> <td></td> </tr> <tr> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref.No.</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td colspan="2">During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA</td> </tr> <tr> <td><input type="checkbox"/></td> <td colspan="2">An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.</td> </tr> <tr> <td rowspan="2"></td> <td>1</td> <td>Issue:</td> </tr> <tr> <td>2</td> <td>Issue:</td> </tr> <tr> <td><input type="checkbox"/></td> <td colspan="2">The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:</td> </tr> </table>	<input checked="" type="checkbox"/>	No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period		<input type="checkbox"/>	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC		1	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref. No.		2	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref.No.		<input checked="" type="checkbox"/>	During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		<input type="checkbox"/>	An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.			1	Issue:	2	Issue:	<input type="checkbox"/>	The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:		<p>OK</p>	<p>OK</p>
<input checked="" type="checkbox"/>	No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period																																									
<input type="checkbox"/>	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC																																									
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<input type="checkbox"/>	The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:																																									



		<table border="1" style="width: 100%;"> <tr> <td style="width: 5%;">1</td> <td style="width: 20%;">Issue:</td> <td style="width: 75%;"></td> </tr> <tr> <td>2</td> <td>Issue:</td> <td></td> </tr> </table> <p><i>In cases of approved TDfrMP or TDfM the EB guidance has been applied as follows:</i></p> <p><i>Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:</i></p> <p>In this context the following findings have been identified: N/A</p>	1	Issue:		2	Issue:									
1	Issue:															
2	Issue:															
<p><b>B.2.3. Corrections</b> <b>(EB70 Annex 11, B.2.2, VVS, Version 03.0; §§ 257 - 259)</b></p> <p><i>Indicate whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report.</i></p> <p><i>In cases where the correction(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.</i></p> <p><i>Please check and report that the corrected</i></p>	<p>/PDD/ /IM01/ /MR/</p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 5%; text-align: center;"><input checked="" type="checkbox"/></td> <td colspan="2">During the verification of the current MP no need for corrections has been identified.</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td colspan="2">The following corrections have been applied:</td> </tr> <tr> <td>1</td> <td>Issue:</td> <td></td> </tr> <tr> <td>2</td> <td>Issue:</td> <td></td> </tr> </table> <p><i>Detailed description and justification each correction:</i></p>	<input checked="" type="checkbox"/>	During the verification of the current MP no need for corrections has been identified.		<input type="checkbox"/>	The following corrections have been applied:		1	Issue:		2	Issue:		<p>NA</p>	<p>NA</p>
<input checked="" type="checkbox"/>	During the verification of the current MP no need for corrections has been identified.															
<input type="checkbox"/>	The following corrections have been applied:															
1	Issue:															
2	Issue:															



<p><i>information is an accurate reflection of the actual project information and that the corrected parameters are in accordance with the applied methodology and the monitoring plan.</i></p>		<p>In this context the following findings have been identified: N/A</p>																																						
<p><b>B.2.4. Permanent changes from the registered monitoring plan or applied methodology (PCfrMP; PCfMM)</b> <b>(EB 70 Annex 11, B.2.3, VVS, Version 03.0; §§ 262 - 268)</b></p> <p><i>Indicate 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.</i></p> <p><i>In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.</i></p>	<p>/PDD/ /MR/ /IM01/ /PDDre/</p>	<table border="1"> <tr> <td><input type="checkbox"/></td> <td colspan="2">No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period</td> </tr> <tr> <td><input type="checkbox"/></td> <td colspan="2">The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC</td> </tr> <tr> <td rowspan="4">1</td> <td>Title</td> <td></td> </tr> <tr> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref. No.</td> <td></td> </tr> <tr> <td rowspan="4">2</td> <td>Title</td> <td></td> </tr> <tr> <td>Status</td> <td><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td> </tr> <tr> <td>Appr.date</td> <td></td> </tr> <tr> <td>Ref.No.</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td colspan="2">During the verification of the current MP no need for a PCfrMP or PCfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA</td> </tr> <tr> <td><input type="checkbox"/></td> <td colspan="2">An approval of the following PCfrMP or PCfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.</td> </tr> <tr> <td>1</td> <td>Issue:</td> <td></td> </tr> <tr> <td>2</td> <td>Issue:</td> <td></td> </tr> </table>	<input type="checkbox"/>	No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period		<input type="checkbox"/>	The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC		1	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref. No.		2	Title		Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved	Appr.date		Ref.No.		<input type="checkbox"/>	During the verification of the current MP no need for a PCfrMP or PCfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		<input type="checkbox"/>	An approval of the following PCfrMP or PCfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		1	Issue:		2	Issue:		<p>CARB1</p>	<p>OK</p>
<input type="checkbox"/>	No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period																																							
<input type="checkbox"/>	The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC																																							
1	Title																																							
	Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved																																						
	Appr.date																																							
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<input type="checkbox"/>	During the verification of the current MP no need for a PCfrMP or PCfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA																																							
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2	Issue:																																							



		<table border="1" data-bbox="994 336 1756 600"> <tr> <td data-bbox="994 336 1066 408" style="text-align: center;"><input checked="" type="checkbox"/></td> <td colspan="2" data-bbox="1066 336 1756 408">The following PCfrMP or PCfMM for which appendix 1 of the PS is applicable have been applied:</td> </tr> <tr> <td data-bbox="1066 408 1122 544" style="text-align: center;">1</td> <td data-bbox="1122 408 1274 544">Issue:</td> <td data-bbox="1274 408 1756 544">Change in the calibration frequency of the cluster meter. Based on this issue CARB1 was raised during the validation process.</td> </tr> <tr> <td data-bbox="1066 544 1122 600" style="text-align: center;">2</td> <td data-bbox="1122 544 1274 600">Issue:</td> <td data-bbox="1274 544 1756 600"></td> </tr> </table> <p data-bbox="994 651 1756 711"><i>In cases of approved PCfrMP or PCfMM the EB guidance has been applied as follows:</i></p> <p data-bbox="994 730 1756 1031">The change in the monitoring frequency of the cluster meter was not in the hand of PP. The calibration was mentioned as annual in the registered PDD; however, the frequency is changed to once in three years. As the change in calibration frequency is not in the hand of PP thus as per EB70 Annex 2 appendix 1 Para 5 (a) prior approval of the board is not required. The assessment of change of frequency of the cluster meters is included in the PRC report.</p> <p data-bbox="994 1091 1756 1152"><i>Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:</i></p> <p data-bbox="994 1248 1756 1321">In this context the following findings have been identified: N/A</p>	<input checked="" type="checkbox"/>	The following PCfrMP or PCfMM for which appendix 1 of the PS is applicable have been applied:		1	Issue:	Change in the calibration frequency of the cluster meter. Based on this issue CARB1 was raised during the validation process.	2	Issue:			
<input checked="" type="checkbox"/>	The following PCfrMP or PCfMM for which appendix 1 of the PS is applicable have been applied:												
1	Issue:	Change in the calibration frequency of the cluster meter. Based on this issue CARB1 was raised during the validation process.											
2	Issue:												
<p><b>B.2.5. Changes to the project design of</b></p>	<p>/MR/</p>		<p>OK</p>	<p>OK</p>									



<p align="center"><b>the registered project activity (CoPD)</b> <i>(EB 70 Annex 11, B.2.4, VVS, Version 03.0; §§ 269 - 282)</i></p> <p><i>Indicate whether any changes to the project design of the project activity have been approved during this monitoring period or submitted with this monitoring report.</i></p> <p><i>In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.</i></p>	/PDD/ /IM01/	<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period			
		<input type="checkbox"/>	The following CoPD has been approved or are under approval by the UNFCCC			
		1	Title			
			Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved		
			Appr.date			
			Ref. No.			
		2	Title			
			Status	<input type="checkbox"/> under approval; <input type="checkbox"/> approved		
			Appr.date			
			Ref.No.			
<input checked="" type="checkbox"/>	During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA					
<input type="checkbox"/>	An approval of the following CoPD.is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.					
1	Issue:					
2	Issue:					
<input type="checkbox"/>	The following CoPD for which appendix 1 of the PS is applicable have been applied:					
1	Issue:					



		<table border="1" style="width: 100%;"> <tr> <td style="width: 30px; text-align: center;">2</td> <td style="width: 100px;">Issue:</td> <td></td> </tr> </table> <p><i>In cases of approved CoPD the EB guidance has been applied as follows:</i></p> <p><i>Detailed description and justification each CoPD for which appendix 1 is applicable:</i></p> <p>In this context the following findings have been identified: N/A</p>	2	Issue:			
2	Issue:						
<b>C. Description of monitoring system</b>							
<p><b>C.1. Monitoring Plan – PDD Compliance (VVS version 03, § 233-236)</b></p> <p><i>Check if the monitoring plan is in accordance with the monitoring plan contained in the registered PDD (or any accepted revised MP).</i></p> <p><i>Please check esp. if</i></p> <ul style="list-style-type: none"> <li>- <i>all parameters stated in the MP of the registered PDD have been monitored and updated as applicable</i></li> <li>- <i>the monitoring equipment has been controlled and calibrated as per the MP</i></li> <li>- <i>the monitoring results are consistently recorded</i></li> </ul>	/MR/ /PDD/ /IM01/	<p>By means of comparison of the MR with the registered PDD (or any revisions thereof) the verification team has checked whether the MP is in compliance with the registered PDD. The outcome is as follows:</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 30px; text-align: center;"><input checked="" type="checkbox"/></td> <td>The MP is completely in accordance with the last registered/approved version of the PDD / MP.</td> </tr> </table> <p>In this context the following findings have been identified: N/A</p>	<input checked="" type="checkbox"/>	The MP is completely in accordance with the last registered/approved version of the PDD / MP.	OK	OK	
<input checked="" type="checkbox"/>	The MP is completely in accordance with the last registered/approved version of the PDD / MP.						



<p><i>as per the approved frequency</i></p> <p>- QA/QC procedures have been applied in accordance with the MP</p>																																				
<p><b>C.2. Monitoring Plan – Meth Compliance (VVS version 03, § 229-232)</b></p> <p><i>Check if the monitoring plan is in accordance with the applied methodology.</i></p> <p><i>In case the methodology references applicable tools it has to be ensured that the MP is also compliant with those tools.</i></p> <p><i>Also please specify if monitoring aspects have been identified that are not specified in the methodology but may enhance the level of accuracy and completeness of the monitoring plan – this esp. applies for SSC PAs.</i></p>	<p>/MR/ /PDD/ /AMS.I.D/</p>	<p>By means of comparison of the MR with the applied CDM methodology and related tools the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology. The outcome is as follows:</p> <table border="1" data-bbox="994 627 1753 1372"> <tr> <td data-bbox="994 627 1066 735"><input checked="" type="checkbox"/></td> <td colspan="3" data-bbox="1066 627 1753 735">The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)</td> </tr> <tr> <td data-bbox="994 735 1066 844"><input checked="" type="checkbox"/></td> <td colspan="3" data-bbox="1066 735 1753 844">The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:</td> </tr> <tr> <td data-bbox="994 844 1066 952">1</td> <td data-bbox="1066 844 1368 952">Title (of the tool)</td> <td colspan="2" data-bbox="1368 844 1753 952">Tool to calculate the grid emission factor for an electricity system</td> </tr> <tr> <td data-bbox="994 952 1066 997"></td> <td data-bbox="1066 952 1368 997">Version</td> <td colspan="2" data-bbox="1368 952 1753 997">2.1</td> </tr> <tr> <td data-bbox="994 997 1066 1128"></td> <td data-bbox="1066 997 1368 1128">MP compliance</td> <td colspan="2" data-bbox="1368 997 1753 1128"> <input checked="" type="checkbox"/> full compliance  <input type="checkbox"/> findings have been raised  <input type="checkbox"/> N/A (for MP)                 </td> </tr> <tr> <td data-bbox="994 1128 1066 1236">2</td> <td data-bbox="1066 1128 1368 1236">Title (of the tool)</td> <td colspan="2" data-bbox="1368 1128 1753 1236">Tool for the demonstration and assessment of additionality</td> </tr> <tr> <td data-bbox="994 1236 1066 1281"></td> <td data-bbox="1066 1236 1368 1281">Version</td> <td colspan="2" data-bbox="1368 1236 1753 1281">5.2</td> </tr> <tr> <td data-bbox="994 1281 1066 1372"></td> <td data-bbox="1066 1281 1368 1372">MP compliance</td> <td colspan="2" data-bbox="1368 1281 1753 1372"> <input type="checkbox"/> full compliance  <input type="checkbox"/> findings have been raised                 </td> </tr> </table>	<input checked="" type="checkbox"/>	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)			<input checked="" type="checkbox"/>	The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:			1	Title (of the tool)	Tool to calculate the grid emission factor for an electricity system			Version	2.1			MP compliance	<input checked="" type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input type="checkbox"/> N/A (for MP)		2	Title (of the tool)	Tool for the demonstration and assessment of additionality			Version	5.2			MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised		<p>GARA4</p>	<p>OK</p>
<input checked="" type="checkbox"/>	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)																																			
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2	Title (of the tool)	Tool for the demonstration and assessment of additionality																																		
	Version	5.2																																		
	MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised																																		





<p><i>Check first if the MR includes a metering diagram showing all relevant monitoring points.</i></p> <p><i>Check further if this diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology.</i></p>	<p>/PDD/</p>	<p><i>Verifier's action:</i> The metering diagram is checked onsite and it was found that the diagram is in line with the onsite practice followed.</p> <p><i>Conclusion:</i> The metering diagram is included as Appendix I in the monitoring report. The diagram is correct and appropriate.</p>		
<p><b>C.5. Roles and Responsibilities (EB 70 Annex 11, C; EB 70 Annex 2 §193)</b></p> <p><i>Check if all roles and positions of each person in the GHG data management process are clearly defined and implemented as stated in the monitoring plan. Please consider the complete data trail from raw data generation to submission of the final data.</i></p> <p><i>Identify, if relevant personnel w.r.t. monitoring has been exchanged?</i></p> <p><i>If so, have appropriate training measures been carried out.</i></p> <p><i>In case of changes, assure that the implemented monitoring procedures have not been affected.</i></p>	<p>/PS/ /PDD/ /MR/ /TR/</p>	<p><i>Description:</i> The roles and responsibilities as presented in the registered PDD is well established onsite.</p> <p><i>Verifier's action:</i> During the site visit the roles and responsibilities were checked and found correct. The training records of the personal were also checked by the assessment team and found correct.</p> <p><i>Conclusion:</i> The roles and responsibilities of the personal as mentioned in the registered PDD is established onsite. The training for the handling of the equipment is provided to the personal by the equipment manufacturer and that is found to be appropriate.</p>	<p>OK</p>	<p>OK</p>
<p><b>C.6. Emergency procedures for the monitoring system (EB 70 Annex 11, C; EB 70 Annex 2 §193)</b></p> <p><i>Check, as appropriate, whether relevant emergency procedures for the monitoring system have been included in the MR and assess whether these procedures have been implemented, when required</i></p>	<p>/PS/ /PDD/ /IM01/</p>	<p><i>Description:</i> The emergency procedure as mentioned in the registered PDD is established onsite. The procedure is included in the monitoring report.</p> <p><i>Verifier's action:</i> During the verification site visit it was observed that the emergency procedure are established and found appropriate.</p>	<p>OK</p>	<p>OK</p>



		<i>Conclusion:</i> The established emergency procedure is correct.		
<p><b>C.7. Data archive and data protection (EB 70 Annex 2 §56 b)</b></p> <p>Check whether all records of monitoring parameters are archived according to the monitoring plan.</p> <p>Assess further whether appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data.</p>	/ISO/ /PDD/	<p><i>Description:</i> The data will be recorded at grid substation, which is under the control of GETCO. The online generation details can be obtained from the LCS meter of the WECs.</p> <p><i>Justification of evidences:</i></p> <p>During the site visit it was observed that the data archiving procedure and data management structure is as per the registered PDD. The data management procedure/archiving procedure are as per the ISO standards.</p> <p><i>Conclusion:</i></p> <p>The records are archived as per the monitoring plan. The Data protection measure is as per the standard ISO procedure.</p>	OK	OK
<b>D. Data and parameters</b>				
<b>D.1. Data and Parameters fixed ex ante</b>				
<p><b>a) Compliance with registered PDD (EB70 Annex 11; D1)</b></p> <p>Check whether the value applied is in compliance with the registered PDD.</p>	/PDD/	<p><i>Description:</i> The ex-ante value is as per the registered PDD.</p> <p><i>Verifier's action:</i> The registered PDD is checked by the assessment team.</p> <p><i>Conclusion:</i> The applied ex-ante value for combined margin is as per the registered PDD.</p>	OK	OK



<p><b>b) Compliance with the applied methodology (EB70 Annex 11; D1)</b></p> <p><i>Check whether the value applied is in compliance with the applied methodology or any other tool.</i></p>	<p>/PDD/</p>	<p><i>Description:</i> The applied value in the registered PDD is as per the tool applied.</p> <p><i>Verifier's action:</i> The registered PDD and tool referred therein is checked by the assessment team and confirms that the applied ex-ante value is calculated as per the applied tool.</p> <p><i>Conclusion:</i> The value is in compliance with the applied methodology and related tool..</p>	<p>OK</p>	<p>OK</p>
<p><b>D.2. Data and Parameters monitored</b></p>				
<p><b>D.2.1. EG<sub>BL,y</sub></b></p>				
<p><b>a) Measurement / Determination method ( VVS, Version 03.0, § 233, 236)</b></p> <p><i>Describe how the monitoring parameter was measured / determined.</i></p> <p><i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i></p> <p><i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i></p>	<p>/CR/ /PDD/ /MR/</p>	<p><i>Description:</i> The net electricity supplied to the grid by the wind farm is calculated by GEDA on the basis of GETCO main meter reading and the meter readings taken at individual cluster meters after adjusting transmission loss. For adjustment of transmission loss, the electricity metered at the GETCO meter is proportionally divided by GEDA among the customers connected to the GETCO meter/revenue meter on the basis of the pro rata readings taken at the cluster meters. The meter reading is taken jointly by the representatives of Enercon and GEDA/GETCO in the form of JMR on monthly basis. The meter reading recorded at cluster meters are sent to GEDA every day.</p> <p>The net electricity exported by the project activity is taken <b>directly from the share certificate</b> issued by GETCO on monthly basis. The apportioning procedure is performed by GEDA personnel based on the data received from LCS meters &amp; clusters meters on daily basis.</p> <p>The value of net electricity exported to the grid is not correct as per the GEDA certificate submitted. The value as mentioned in</p>	<p>CAR D4</p>	<p>OK</p>



		<p>the MR is not correct with the ER sheet. Considering this issue CARD1 was raised.</p> <p><i>Verifier's action:</i> The credit report is checked by the assessment team. However, CAR D1 was raised</p> <p><i>Conclusion:</i> CAR D1</p>		
<p><b>b) Accuracy and QA/QC Procedure ( VVS, Version 03.0, §§ 237-241)</b></p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i></p> <p><i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i></p>	<p>/CAL/ /PDD/ /MR/</p>	<p><i>Description:</i> The value obtained for the net electricity exported is obtained from the main meter situated at Sadodar substation. The meter records the export and import for the total site and then GEDA apportion out the net electricity exported to the grid for the individual PP. The same is released by GEDA in the form of share certificates. The calibration of the meters was set for annual frequency. However, the calibration didn't take place in the year 2011. The latest calibration certificates were checked by the assessment team to confirm that the accuracy class of the meter is below 0.2. Hence, the highest calibration factor of 0.2 is applied as per the requirement of Annex 60EB52. Nevertheless, CARD1 was raised.</p> <p><i>Verifier's action:</i> During the desk review calibration certificates were checked by the assessment team. CAR D1 was raised.</p> <p><i>Conclusion:</i> However, CAR D1 was raised.</p>	CAR D1	OK
<p><b>c) Correctness ( VVS, Version 03.0, §§ 233, 236)</b></p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative</i></p>	<p>/MR/ /CR/ /XLS/</p>	<p><input type="checkbox"/> Correct      <input checked="" type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i> The value for net electricity exported to the grid is checked by the assessment team. However, the value was not correct. Considering this issue CAR D1 was raised by the assessment team.</p>	CAR D1	OK



<p><i>manner.</i></p> <p><i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i></p> <p><i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i></p>		<p><i>Verifier's action:</i> The emission reduction sheet is checked by the assessment team. However, CAR D1 was raised.</p> <p><i>Conclusion:</i> CAR D1</p>		
<p><b>D.3 Sampling</b></p>				
<p><b>a) Implementation of sampling plan</b> <b>(EB70 Annex 11; D3)</b></p> <p><i>Check whether the PP has applied a sampling approach to determine the monitored values (as per section D.2 above).</i></p> <p><i>If this is the case, please provide an assessment whether the PPs have correctly and sufficiently described the implemented sampling plan including</i></p> <p><i>a) Description of the implemented sampling design</i></p> <p><i>b) Collected data</i></p> <p><i>c) Analysis of collected data</i></p> <p><i>d) Demonstration on whether the required confidence/precision has been met.</i></p>	<p><i>/MR/</i></p> <p><i>/IM01/</i></p>	<p><input checked="" type="checkbox"/> No sampling approach has been used by the PP to determine the monitored parameters</p> <p><b>OR.</b></p> <p><input type="checkbox"/> A sampling approach has been taken for the following monitored parameters:</p> <p><b>Parameter:</b></p> <p><i>Description:</i></p> <p><i>Verifier's action:</i></p> <p><i>Conclusion:</i></p>	<p>OK</p>	<p>OK</p>
<p><b>b) Sampling during verification</b></p> <p><i>In case the VT has applied a sampling approach in the course of the verification the approach shall</i></p>	<p><i>/MR/</i></p> <p><i>/IM01/</i></p>	<p><input checked="" type="checkbox"/> No sampling approach has been used by the VT to verify the monitored parameters</p> <p><b>OR.</b></p>	<p>OK</p>	<p>OK</p>



<p><i>be described for each parameter.</i></p>		<p><input type="checkbox"/> A sampling approach has been applied by the VT for the following monitored parameters:</p> <p><b>Parameter:</b></p> <p><i>Description:</i></p> <p><i>Conclusion:</i></p>		
<p><b>E. Calculation of Emission reductions</b></p>				
<p><b>E.1. Traceability</b> ( VVS, Version 03.0, §§ 212, 214)</p> <p><i>Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spreadsheet shall be used. All applied formulae must be visible.</i></p>	<p>/XLS/ /MR/</p>	<p><i>Description:</i> The emission reduction calculation is presented in the ER sheet as per the formula given in the registered PDD. The formula is traceable.</p> <p><i>Verifier’s action:</i> The emission reduction sheet is checked by the assessment team. .</p> <p><i>Conclusion:</i> The traceability for the formula presented in the MR is as per the registered PDD. Thus all the calculation is traceable.</p>	<p>OK</p>	<p>OK</p>
<p><b>E.2. Parameter consistency</b> ( VVS, Version 03.0, § 214)</p> <p><i>Assess whether all internal and external parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet?</i></p> <p><i>Consider only the correct data exchange between the monitoring report and the calculation spreadsheet (if any). Further ensure the consistency of notations for</i></p>	<p>/XLS/ /CR/</p>	<p><i>Description:</i> The parameter required for the calculation of emission reduction is presented in the MR and emission reduction sheet. The source of data for net electricity exported to the grid is the share certificates which are the basis for emission reduction calculation. However, CAR E1 was raised.</p> <p><i>Verifier’s action:</i> The emission reduction sheet and credit reports are checked. However, CAR E1 was raised.</p>	<p>CAR E1</p>	<p>OK</p>



<p><i>all parameters in the PDD, MR, calculation spreadsheet.</i></p>		<p><i>Conclusion: CAR E1</i></p>		
<p><b>E.3. Correctness of calculation (EB 65 Annex 1, §§ 235-236)</b></p> <p><i>Check if the applied formulae and methods for calculating baseline emissions, project emissions and leakage are in accordance with the monitoring plan and / or the approved methodology.</i></p> <p><i>Assess whether the provided calculations are complete and reflect all requirements of the monitoring plan.</i></p> <p><i>Check especially that no standard or old values have been used for calculation where calculations based on up-to-date data is required.</i></p>	<p>/XLS/ /MR/ /PDD/</p>	<p><i>Description:</i> The formula applied for the calculation of baseline, project and leakage emission is as per the registered PDD and methodology. The calculation approach is assessed correct. However, CAR E1 was raised.</p> <p><i>Verifier’s action:</i> The emission reduction sheet and PDD are checked. However, CARE1 was raised.</p> <p><i>Conclusion: CAR E1</i></p>	<p>CAR E1</p>	<p>OK</p>
<p><b>E.4. Emission reductions table (EB70 Annex 11, E.4)</b></p> <p><i>Check if the MR includes a summary table of the emission reductions calculation specifying separately</i></p> <ul style="list-style-type: none"> <li>- Total baseline emissions</li> <li>- Total project emissions:</li> <li>- Total leakage</li> <li>- Total emission reductions.</li> </ul> <p><i>Assess whether the values are correct or need to be revised as a consequence of issues identified above.</i></p>	<p>/XLS/ /MR/ /PDD/</p>	<p><input checked="" type="checkbox"/> The MR includes in section E.4 a summary table of the emission reductions calculation.</p> <p><input checked="" type="checkbox"/> The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately.</p> <p><input type="checkbox"/> The values as specified in the ER summary table are correct; no issues have been identified during the verification which require changes in the ER calculation.</p> <p><input checked="" type="checkbox"/> During the verification issues with impact on the ER calculation have been identified. Thus subject to the closure of above listed findings the summary table in E.4 needs to be revised.</p> <p>In this context the following additional findings have been</p>	<p>CAR E1</p>	<p>OK</p>



		identified: CAR E1 was raised		
<p><b>E.5. Comparison with ex-ante determined emission reductions (EB70 Annex 11, E.5; E.6)</b></p> <p><i>Check if the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD.</i></p> <p><i>Check further whether in case of an increase an appropriate explanation is included in the MR.</i></p> <p><i>Assess in case of a significant increase whether this is due to technical or organisational changes within or outside the control of the PP which might require a notification / approval of changes (as per EB 48 Annex 66/67).</i></p>	/XLS/ /MR/ /PDD/	<p><i>Description:</i> The comparison of estimated emission reduction and actual emission reduction is provided in the MR. However, CAR E1 was raised during the verification process.</p> <p><i>Verifier's action:</i> The emission reduction sheet and MR are checked. However, CAR E1 was raised.</p> <p><i>Conclusion:</i> CAR E1</p>	CAR E1	OK
<p><b>E.6. ER during the 1<sup>st</sup> commitment period and the period from 1 January 2013 onwards (EB 70, Annex 11, E.7)</b></p> <p><i>Check if the MR includes in chapter E.7 a breakdown of the actual ER into</i></p> <p>a) <i>ER up to 2012-12-31 and</i></p> <p>b) <i>ER from 2013-01-01 onwards</i></p> <p><i>The ERs for each period should be determined as per the actual generation. In cases where this is not possible or a cap has been applied a proportional (time related) approach should be chosen.</i></p>	/MR/ /PDD/	<p>The MR in section E.7 includes a summary table of the ER breakdown</p> <p>a) <i>ER up to 2012-12-31 and</i></p> <p>b) <i>ER from 2013-01-01 onwards</i></p> <p><input type="checkbox"/> The breakdown of the ERs during the first commitment period and from 2013-01-01 onwards is as follows:</p> <p><input checked="" type="checkbox"/> The ER have completely been generated during the first commitment period</p> <p><input type="checkbox"/> The ERs have completely been generated from 2013-01-01 onwards,</p> <p><input type="checkbox"/> The ERs have partly been generated during the first commitment period and partly from 2013-01-01</p>	OK	OK



		<p>onwards.</p> <p><input type="checkbox"/> The breakdown of the ERs is correct, considering the applicable guidance.</p> <p>In this context the following additional findings have been identified:</p> <p>N/A</p>		
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## ANNEX 2: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL



### Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

**Mr. Sukanta Das**

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor	2014-03-08
VCS/ ISO 14064-2	Lead Assessor	2014-03-08

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies

089 - Rev. 1, Date: 2012-06-18



### Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

**Mr. Ingo Klein**

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2014-08-03
VCS	Senior Assessor Technical Reviewer	2014-08-03

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Geothermal 1.2.4 Solar 1.2.5 Tidal

122 - Rev. 2, Date: 2011-08-04

