



VERIFICATION AND CERTIFICATION REPORT

- 1ST PERIODIC –

ENERCON (INDIA) LIMITED

WIND POWER PROJECT IN TINWARI, RAJASTHAN

UNFCCC REF. No. : 6160

Monitoring Period: 2012-08-01 to 2013-02-28
(incl. both days)

Report No: 8110005528 – 13/072

Date: 2013-06-05

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Verification Report:	Report No.	Rev. No.	Date of 1st issue:	Date of this rev.
	8110005528 – 13/072	1	2013-05-10	2013-06-05
Project:	Title:	Registration date:		UNFCCC-No.:
	Wind Power Project in Tinwari, Rajasthan	2012-07-25		6160
		Verification No.:		
		1st periodic verification		
	Crediting period:	From:	To:	
	<input type="checkbox"/> Renewable (7y) <input checked="" type="checkbox"/> Fixed (10y)	2012-08-01	2022-07-31	
Project Scale:				
	<input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale			
Project Participant(s):	Client:			
	Enercon (India) Limited			
	Non Annex 1 country:	Annex 1 country:		
	India	NA		
	PP from non Annex 1 country:	PP from Annex 1 country:		
	Enercon (India) Limited	NA		
Applied methodology/ies:	Title:	No.:	Scope(s) / TA(s)	
	Consolidated baseline methodology for grid-connected electricity generation from renewable sources	ACM0002 ver. 12.2.0	1/1.2	
Monitoring period and monitoring report	Monitoring period (MP):		Monitoring Report:	
	From:	To:	No. of days:	Draft version:
	2012-08-01	2013-02-28		2013-03-20
			2013-04-22	
Verification team / Technical Review and Final Approval:	Verification Team:		Technical review:	Final approval:
	Mr. Jimmy Sah (TL/TE) Mr. Sukanta Das (TM/TE)		Samir Beqqal Kunal Rami	Kunal Rami
Key dates of verification:	Publication of MR :	DVerR issued:	On-site (from):	On-site (to):
	2013-02-07	2013-04-18	2013-04-11	2013-04-12
Summary of Verification opinion	<p>The summary of the verification will be provided as part of the final verification report. Enercon (India) Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: "Wind Power Project in Tinwari, Rajasthan", 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"> <input checked="" type="checkbox"/> all operations of the project are implemented and installed as planned and described in the validated project design document, <input checked="" type="checkbox"/> the monitoring plan is in accordance with the applied approved CDM methodology, <input checked="" type="checkbox"/> the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately, <input checked="" type="checkbox"/> the monitoring system is in place and functional. The project has generated GHG emission reductions, and <input checked="" type="checkbox"/> the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. <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>			
Emission reductions: [t CO_{2e}]	Total verified amount		As per draft MR:	As per PDD:
	12,777		12,777 tCO ₂	18,827 tCO ₂ (Considering the

1st Periodic Verification and Certification Report: Wind Power Project in
Tinwari, Rajasthan

TÜV NORD JI/CDM Certification Program

R-No: 8110005528 – 13/072



			MP)
		<i>ER achieved up to 2012-12-31</i>	<i>ER achieved from 2013-01-01</i>
		8258	4519
Document information:	<i>Filename:</i>		<i>No. of pages:</i>
	FVR Tinwari		86

Abbreviations:

CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon dioxide
CO_{2eq}	Carbon dioxide equivalent
EIL	Enercon (India) Limited
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse gas(es)
JVVNL	Jaipur Vidyut Vitran Nigam Limited
LCS	Local Control Panel
MP	Monitoring Plan
NEWNE	Northern, Eastern, Western, North-Eastern
MR	Monitoring Report
PA	Project Activity
PDD	Project Design Document
PP	Project Participant
PPA	Power Purchase Agreement
QA/QC	Quality Assurance / Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
VCB	Vacuum Circuit Breaker
WEC	Wind Energy Converter
XLS	Emission Reduction Calculation Spread Sheet

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1. INTRODUCTION

Enercon (India) Limited has commissioned the TÜV NORD JI/CDM Certification Program (CP) to carry out the 1st periodic verification of the project

“Wind Power Project in Tinwari, Rajasthan”

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 ^{/VVS/} 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 ^{/PDD/}, the monitoring report ^{/MR/}, emission reduction calculation spread sheet ^{/XLS/}, 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 ^{/KP/},
- guidelines for the implementation of Article 12 of the Kyoto Protocol as presented in the Marrakech Accords under decision 3/CMP.1 ^{/MA/}, and subsequent decisions made by the Executive Board and COP/MOP,
- other relevant rules, including the host country legislation,
- CDM Validation and Verification Standard ^{/VVS/},



- monitoring plan as given in the registered PDD ^{/PDD/},
- Approved CDM Methodology.

2. GHG PROJECT DESCRIPTION

2.1. Technical Project Description

The project activity involves installation of a 20 MW (25 × 0.80 MW) wind power project located at villages Salodi, Chensingh Nagar, Bari, Malunga, Bada Kotacha, Digadi Dhani, Balrva & Beru villages of Jodhpur district in the Rajasthan state of India. The electricity generated is being sold to the grid for which PP has entered into a Power Purchase Agreement^{/PPA/} with Jaipur Vidyut Vitran Nigam Limited(JVVNL). The project thereby reduces GHG emissions by replacing electricity of the NEWNE Grid of India (to which the project is connected to) which predominantly uses fossil fuels.

The project activity includes Enercon windmills (800 kW, E-53) with internal electrical lines connecting the project activity with local evacuation facility. The WECs generates 3-phase electricity at 400 V, which is stepped up to 33 kV. Enercon (India) Limited is responsible for operation and maintenance activities for this project which is also the technology and equipment supplier.

The project activity constitute of various clusters and each cluster has an exclusive metering arrangement and the meter readings taken at these metering points have been provided by the representatives of Enercon to State officials. Further, the Project is connected to 132KV PS-8 Narwa substation. The main meter (also known as revenue meter) is located in this substation.

The 25WEGs of project activity installed in Jodhpur district is connected through 132kV Enercon (India) Limited (herein after referred as EIL) pooling sub-station (132kV SALODI sub-station), through 33kV feeder lines. At EIL pooling sub-station SALODI electricity is stepped up to 132kV, wherein the backup meter (one main & one check meter) connected. From EIL pooling sub-station electricity is transmitted to state utility (DISCOM) sub-station (PS-8 Narwa Sub-station) through 132kV transmission line/ EHV line wherein billing meter (one main & one check meter) is connected. At EB sub-station metering is done at 132kV billing meter. From EB sub-station electricity is further transmitted to NEWNE grid. The billing meter monitors the electricity export/import which is generated by this project activity as well as WECs installed by other project owners. Since the project activity WEGs are connected through common metering system along with non project activity WEGs of other customers at the main meter, apportioning of electricity export & import as recorded in JMR is being done to calculate the electricity export & import by individual WEGs/ customers.

The first WEC under the project activity was commissioned on 30 September 2011 and last WEC under the project activity was commissioned on 09 November 2011. The commissioning date^{/CC/} for all the WECs included in the project activity is given in the table below.

SI No	Location	WEC-ID No.	Commissioning Date
1.	9	SALODI	30 Sep 2011
2.	48	Chain singh Nagar/Balrva	09 Nov 2011
3.	49	Chain singh Nagar/Balrva	09 Nov 2011
4.	50	Chain singh Nagar/Balrva	09 Nov 2011
5.	51	Chain singh Nagar/Balrva	09 Nov 2011
6.	53	Chain singh Nagar/Balrva	09 Nov 2011
7.	82	Bari	30 Sep 2011
8.	83	Bari	30 Sep 2011
9.	112	Malunga	09 Nov 2011
10.	113	Malunga	09 Nov 2011
11.	114	Malunga	09 Nov 2011
12.	115	Malunga	09 Nov 2011
13.	116	Malunga	09 Nov 2011
14.	129	Digadi Dhani (Malunga)	30 Sep 2011
15.	130	Bada Kotacha	30 Sep 2011
16.	131	Bada Kotacha	30 Sep 2011
17.	133	Bada Kotacha	30 Sep 2011
18.	134	Bada Kotacha	30 Sep 2011
19.	136	Digadi Dhani (Malunga)	30 Sep 2011
20.	137	Digadi Dhani (Malunga)	30 Sep 2011
21.	501	Chain singh Nagar/Balrva	09 Nov 2011
22.	504	Beru	09 Nov 2011
23.	515	Digadi Dhani (Malunga)	30 Sep 2011
24.	516	Digadi Dhani (Malunga)	30 Sep 2011
25.	517	Digadi Dhani (Malunga)	30 Sep 2011

As the Wind energy is a carbon neutral fuel, the project reduces CO₂ emissions to the extent of equivalent net electricity generated by mostly fossil fuel based power plants connected to the NEWNE grid.

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

Table 2-1: Technical data of the project activity

Parameter	Unit	Value
No of Blades		3
Rated Power	kW	800
Hub Height	M	75
Rotor diameter	M	53
Cut in wind speed	m/s	2.5
Cut out wind Speed	m/s	28-34
Extreme Wind Speed	m/s	59.5
Operating range rot. speed	rpm	12-29
Rated rotational speed	rpm	32
Gear Type		Gearless
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:	Rajasthan
Project location address:	Salodi, Chensingh Nagar, Bari, Malunga, Bada Kotacha, Digadi Dhani, Balrva & Beru villages of Jodhpur district
Latitude:	The details of individual WECs are provided below
Longitude:	The details of individual WECs are provided below

The latitude, longitude and the commissioning dates are as follows:

Location No	WEC-ID No.	Village	Latitude	Longitude
1	9	SALODI	26.42828	72.80512
2	48	Chain singh Nagar/Balrva	26.45382	72.87220
3	49	Chain singh Nagar/Balrva	26.45383	72.86990
4	50	Chain singh Nagar/Balrva	26.45661	72.87060
5	51	Chain singh Nagar/Balrva	26.45580	72.86707

Location No	WEC-ID No.	Village	Latitude	Longitude
6	53	Chain singh Nagar/Balrva	26.45745	72.86628
7	82	Bari	26.47798	72.83214
8	83	Bari	26.47596	72.82855
9	112	Malunga	26.45374	72.77689
10	113	Malunga	26.45609	72.77677
11	114	Malunga	26.45756	72.77531
12	115	Malunga	26.46012	72.77523
13	116	Malunga	26.45891	72.77188
14	129	Digadi Dhani (Malunga)	26.49696	72.79726
15	130	Bada Kotacha	26.50309	72.80070
16	131	Bada Kotacha	26.50395	72.79868
17	133	Bada Kotacha	26.50955	72.79788
18	134	Bada Kotacha	26.51170	72.79732
19	136	Digadi Dhani (Malunga)	26.50604	72.79201
20	137	Digadi Dhani (Malunga)	26.50539	72.79512
21	501	Chain singh Nagar/Balrva	26.45836	72.86488
22	504	Beru	26.42481	72.87424
23	515	Digadi Dhani (Malunga)	26.50039	72.79619
24	516	Digadi Dhani (Malunga)	26.50245	72.79325
25	517	Digadi Dhani (Malunga)	26.50828	72.79092

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 st Monitoring period	01/08/2012 – 28/02/2013	Awaiting issuance request

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

Table 2-3: Overview Post Registration Changes

#	Applicable from – to / as of	MP	Type of post registration change ¹⁾	Description	Status ²⁾ / Date
1	20xx-xx-xx to 20xx-xx-xx		TDfrMP	NA	NA
2	20xx-xx-xx to 20xx-xx-xx		TDfMM	NA	NA
3	20xx-xx-xx		CrPDD	NA	NA
4	20xx-xx-xx		PCfrMP	NA	NA
5	20xx-xx-xx		PCfMM	NA	NA
6	20xx-xx-xx		CoPD	NA	NA

- ¹⁾ 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
- ²⁾ 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^{/MR/} submitted by the client and additional supporting documents with the use of customised verification protocol^{/CPM/} according to the Validation and Verification Standard^{/VVS/},
- 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 01 additional team member, 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 ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Verification competence ⁵⁾	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Jimmy Sah	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 checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Sukanta Das	TUV India Pvt. Ltd.	TM/TE _{A)}	LA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Samir Beqqal	TN Cert	TR ^{B)}	SA	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	-
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Kunal Rami	TN Cert	TR ^{B)} / FA	SA	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	-

¹⁾ TL: Team Leader; TM: Team Member; TR: Technical review; OT: Observer-Team; OR: Observer-TR; FA: Final approval

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

³⁾ GHG auditor status (at least Assessor)

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

⁵⁾ In case of verification projects

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

B) No team member

The team member 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.

In order to qualify further personnel the project team was accompanied by observers and/or trainees as indicated in the table above. They are usually not considered as team members.

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

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 performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
<i>The following potential risks were identified and divided and structured according to the possible areas of occurrence.</i>	<p><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.</i></p> <p><i>The following measures are implemented:</i></p>	<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>	<p><i>The additional verification testing performed is described. Testing may include:</i></p> <ul style="list-style-type: none"> - Sample cross checking of manual transfers of data - Recalculation - Spreadsheet 'walk throughs' to check links and equations - Inspection of calibration and maintenance 	<i>Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties are highlighted.</i>

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 performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
			<p><i>records for key equipment</i></p> <p><i>- Check sampling analysis results</i></p> <p><i>Discussions with process engineers who have detailed knowledge of process uncertainty/error bands.</i></p>	

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

Table A-2: Periodic verification checklist

Checklist Item	Reference	Verification Team Comments	Draft Conclusion	Final Conclusion
<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^{/PDD/},
- the last revision of the validation report^{/VAL/},
- documentation of previous verifications^{/VER/},
- the monitoring report, including the claimed emission reductions for the project^{/MR/},
- the emission reduction calculation spreadsheet^{/XLS/}.

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 invoice 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 Enercon (India) Limited 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	- General aspects of the project - Technical equipment and operation - Changes since validation / previous verification
2. Operations Personnel- Enercon (India) limited	- Monitoring and measurement equipment - Remaining issues from validation/ previous

Interviewed Persons / Entities	Interview topics
	<p>verification</p> <ul style="list-style-type: none">- Calibration procedures- Quality management system- Involved personnel and responsibilities- Training and practice of the operational personnel- Implementation of the monitoring plan- Monitoring data management- Data uncertainty and residual risks- GHG emission reduction calculation- Procedural aspects of the verification- Maintenance

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^{/MR/}, the calculation spreadsheet^{/XLS/}, PDD^{/PDD/}, the Validation Report^{/VAL/} 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	-	-	-
C – Description of monitoring system	01	-	-
D – Data and parameters	-	-	-
E - Calculation of Emission Reductions	01	-	-
SUM	03	-	-

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
---------	-----------

Finding	A1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The MR contains editorial mistakes as many of the words are not readable under section D.2.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	Editorial mistakes has been corrected		
	<input checked="" type="checkbox"/> Changes in MR	Section(s): D.2	New version No.: 02
	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <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 revised MR version 02 is free from editorial errors. The values and words are readable. CAR is closed.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	C1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	During the site visit it is observed that the Enercon sub-station at Salodi has provisions for monitoring the generation in form of main and check meters, however the MR does not provide the details for the Check meter installed.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	As per DOE observation details for the check meter installed at Enercon sub-station at Salodi has been incorporated in revised MR & CER calculation sheet		
	<input checked="" type="checkbox"/> Changes in MR	Section(s): C	New version No.: 02
	<input checked="" type="checkbox"/> Changes in XLS	Worksheet(s): Meter details	New version No.: 02
DOE Assessment #1 <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 revised MR version 02 provides the details for the check meter installed at the Salodi sub-station. The details have been confirmed by physical verification during the site visit and are correct.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed		

Finding	E1		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR

Finding	E1						
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The value of emission reductions as mentioned in the Excel sheet does not match with the values mentioned in the MR.						
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	The emission reductions values are revised to be consistent in the MR the ER sheet.						
	<table border="1"> <tr> <td><input checked="" type="checkbox"/> Changes in MR</td><td>Section(s): Section A, E</td><td>New version No.: 02</td></tr> <tr> <td><input type="checkbox"/> Changes in XLS</td><td>Worksheet(s):</td><td>New version No.:</td></tr> </table>	<input checked="" type="checkbox"/> Changes in MR	Section(s): Section A, E	New version No.: 02	<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:
<input checked="" type="checkbox"/> Changes in MR	Section(s): Section A, E	New version No.: 02					
<input type="checkbox"/> Changes in XLS	Worksheet(s):	New version No.:					
DOE Assessment #1 <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 revised MR version 02 mentions the emission reduction value which is consistent to the emission reduction sheet. CAR is closed.						
Conclusion <i>Tick the appropriate checkbox</i>	<table border="1"> <tr> <td><input type="checkbox"/> To be checked during the next periodic verification</td></tr> <tr> <td><input type="checkbox"/> Additional action should be taken (finding remains open)</td></tr> <tr> <td><input checked="" type="checkbox"/> The finding is closed</td></tr> </table>	<input type="checkbox"/> To be checked during the next periodic verification	<input type="checkbox"/> Additional action should be taken (finding remains open)	<input checked="" type="checkbox"/> The finding is closed			
<input type="checkbox"/> To be checked during the next periodic verification							
<input type="checkbox"/> Additional action should be taken (finding remains open)							
<input checked="" type="checkbox"/> The finding is closed							

5. SUMMARY OF VERIFICATION ASSESSMENTS

The following paragraphs include the summary of the final verification assessments after all CARs and CRs 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	Enercon (India) Limited
Annex 1	NA	NA

5.2. Implementation of the project

During the verification a site visit was carried out. 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 equipment, as well as the monitoring and metering equipment, the project has been implemented and operated as described in the registered PDD.

5.3. Project history

During validation, the validating DOE has not raised any FAR. Hence no remaining issues are pending in the validation report.

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

5.4. Post registration changes

No post registration changes applicable for this monitoring period have been observed during the monitoring period.

5.5. Compliance with the monitoring plan

The monitoring system and all applied procedures are completely in compliance to the registered monitoring plan.

5.6. Compliance with the monitoring methodology

The monitoring system is in compliance with the applied monitoring methodology “*Consolidated methodology for grid-connected electricity generation from renewable sources*”, ACM0002 Version 12.2.0.

All other requirements of the applied methodology are met. Furthermore, the default parameters applied in project activity are used for the calculation of grid emission factor (OM, BM and CM) the values are fixed ex ante (0.94881 tCO₂/MWh) as per the registered PDD^{/PDD/} and correctly applied.

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.

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.

As per the registered PDD^{/PDD/} the net electricity exported to the grid is monitored the monitoring parameters for the project are as follows;

- **EG_{facility,y}** Net electricity generation supplied to the grid by the Project activity
- **EG_{Export,y}** Electricity export to the grid by the Project activity (calculated value)
- **EG_{Import,y}** Electricity Import from grid by the Project activity (calculated value)
- **EG_{JMR, Export}** Electricity export by project activity & non project activity recorded by main meter installed at DISCOM sub-station.
- **EG_{JMR, Import}** Electricity import by project activity & non project activity recorded by main meter installed at DISCOM sub-station
- **EG_{Controller, i}** Net electricity generation (Gross Export – Gross Import) by a WEG of project activity or non project activity, as measured at the controller (LCS meter) at project site.

- $\sum EG_{\text{Controller}, i}$ Summation of net electricity generation (Gross Export-Gross Import) by all WEG (i number of WEGs) of project activity (j number of WEGs) and non-project activity (k number of WEGs) - (calculated value)
- $\sum EG_{\text{Controller}, j}$ Summation of net electricity generation (Gross Export – Gross Import) by all the WEGs (j number of WEGs) of project activity – (calculated value)

There are 25 WEGs implemented under the project which are connected to a common Enercon sub-station (SALODI) along with other WEGs which are not a part of the project activity. Metering is carried out at Salodi sub-station consisting both main and check meters. Further, electricity is transmitted to Discom sub-station (PS-8 Narwa) which is the billing meter by 132 kV transmission line/EHV line. The metering at PS-8 Narwa Sub-station consists of main and check meter. From PS-8 electricity is fed in to the NEWNE grid.

The monthly Joint Meter Readings (JMR) is taken in presence of DISCOM officials and EIL (as a representative of all the clients). Since the project activity WEGs are connected through common metering system along with non project activity WEGs, apportioning of electricity export & import as recorded in JMR is being done to calculate the values for the project activity. Apportioning is being done based on the ratio of generation values recorded for the project WECs and the value for generation of all the WECs connected to the billing meter.

Procedure used for apportioning has been assessed as follows;

The monthly JMR reading contains the parameters of electricity export, import & net electricity supplied by all the WEGs of project activity as well as non project activity connected to the metering system at DISCOM substation. Hence in order to arrive at the electricity export, import & net electricity supplied by WEGs of the project activity an apportioning approach based on the ratio of project panel generation to the panel generation of all the WECs connected to the common meter is applied.

Export by project WEC = JMR Export * (panel generation of project/panel generation of all WECs connected to the common metering)

Similarly for Import the same ratio is applied. Based on the export and import values the net electricity supplied to the grid by the project activity is arrived.

The above mentioned of apportioning is done by the O&M contractor EIL and is submitted to respective DISCOM, the same is verified and approved by respective DISCOMs. Subsequently PPs raises an invoice to the DISCOM and the payment is made in line with the DISCOM provisions.

Once the PP raises the invoice based on the monthly breakup sheet corresponding to the net electricity generation value indicated in the monthly breakup sheet. DISOM based on the JMR reading along with monthly breakup sheet prepared by Enercon and the invoice raised by investors, conduct the audit to cross check the net electricity values and in case all the values are found to be correct, DISCOM release the payment against the invoice raised by individual investors.

The values of the net electricity supplied to grid by project activity has also been cross checked with invoices raised by the PP on DISCOM and found correct.

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 revised approved monitoring plan and other relevant requirements. Further, CAR A1, CAR C1 and CAR ED1 were raised and satisfactorily closed by the assessment team. Please refer section 4 of this report for the details of same.

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

During the verification no mistakes were observed in the ER calculation. Thus it is confirmed that the ER calculation is overall correct.

The calculation of emission reductions is estimated as the difference of baseline emissions and the sum of project emissions and leakage emissions.

and

Baseline emission reduction calculation is given as:

$$\begin{array}{lcl} \text{Baseline emissions} & = & \text{Emission coefficient} \times \text{Net electricity exported to the grid} \\ (\text{tCO}_2) & & (\text{tCO}_2/\text{MWh}) \quad (\text{MWh}) \end{array}$$

As per applied methodology, leakage is considered as zero. Thus for the project activity the emission reductions equals to the baseline emissions. The baseline emissions are calculated as the product of net electricity supplied to the grid and the ex-ante fixed emission factor of NEWNE grid.

The net electricity exported from the project activity is a calculated value which has been reproduced in the emission reduction sheet for the entire monitoring period. Further the values have also been cross-checked and confirmed with the invoices raised by the PP on DISCOM. The approach adopted to calculate the net electricity exported to the grid is assessed correct by the assessment team and the same is in-line with the registered PDD. The emission factor was fixed *ex ante* and the value was cross checked from the PDD and found to be correct. The approach to calculate the baseline emission is as per the registered PDD and thus the calculation is considered to be correct.

Stepwise approach to estimate the emission reduction is described below:

Baseline Emissions:

The baseline is the kWh produced by the renewable generating unit multiplied by an emission coefficient (measured in tCO₂e/MWh) calculated in a transparent and conservative manner as the weighted average emissions (in tCO₂e/MWh) as described in registered PDD.

$$BE_y = EG_{\text{facility},y} * EF_{\text{grid, CM, y}}$$

Where,

BE is baseline emissions in year y, tCO₂e

EG_{facility,y} is the net electricity supplied to the grid in year y and is a calculated value, which has been cross checked from the invoice.

$EF_{\text{grid, CM, y}}$ is the CO₂ emission factor of the grid (0.94881 tCO₂e/MWh fixed ex-ante)

The net electricity supplied to grid by the project activity for this monitoring period is
 $EG_{\text{facility, y}} = 13466.998 \text{ MWh}$

Thus, Baseline emissions (BE_y) = 12,777 tCO₂e

Project Emission:

As per the approved methodology ACM0002, Version 12.2, for most renewable power generation project activities,

Hence, $PE_y = 0 \text{ tCO}_2\text{e}$ as this is a wind power and therefore renewable power project.

Leakage:

As per ACM0002 Version.12.2 no leakage emissions are considered.

Hence, Leakage (LE_y) = 0 tCO₂e

Emission reductions calculation

Total emission reductions is done based on following formula:

$$\text{Emission reduction } (ER_y) = \text{Baseline Emissions } (BE_y) - \text{Project Emissions } (PE_y) - \text{Leakage } (LE_y)$$

$$\text{Total baseline emissions} = 12,777 \text{ tCO}_2\text{e}$$

$$\text{Total project emissions} = 0 \text{ tCO}_2\text{e}$$

$$\text{Total leakage} = 0 \text{ tCO}_2\text{e}$$

$$ER_y = 12,777 - 0 - 0 \text{ tCO}_2\text{e}$$

$$\text{Thus, } ER_y = 12,777 \text{ tCO}_2\text{e}$$

During the verification, no mistakes and inconsistencies in the ER calculation were identified, however the values in the MR and the emission reduction sheet was not matching thus CAR E1 was raised. However in the revised MR version 2 the emission reductions values are consistent with the excel sheet thus CAR E1 is closed. Further it is confirmed that the ER calculation is overall correct.

The calibration for the meters has been carried out at the annual frequency in line with the PDD. The metering equipment were inspected & tested by State Utility.

Meter details & calibration details for the all the main and check meters are as follows:-

Meter Location		PS-8 Sub-station (Electricity Board) (Billing meter)		Salodi Sub-station (Enercon) (Back metering point)	
Type of meter		Main Meter	Check Meter	Main meter	Check Meter
Meter Sr. No.		RJB 00354	RJB 00356	RJB 00358	RJB 00357
Meter Make		Secure	Secure	Secure	Secure
Accuracy class		0.20%	0.20%	0.20%	0.20%
Type		All the meters are two-way Tri-vector meters capable of recording import and export of electricity.			
Calibration Details	2011	24-Mar-11	24-Mar-11	24-Mar-11	24-Mar-11
	2012	16-Mar-12	16-Mar-12	15-Mar-12	15-Mar-12

The main and check meters are tested for accuracy on annual basis by state utility and in case of error; meters are calibrated by state utility. Further during the annual meter testing, all the meters were under the permissible limit of error and accordingly none of the meter was replaced during the current monitoring period. The meters are assessed to be working in satisfactory condition.

5.11. Quality Management

Enercon (India) limited is responsible for operation and maintenance activities for this project. Enercon (India) limited operation and maintenance activities are ISO 9001:2008 certified and all the events are recorded in the log book available at the project site. Referring to the data available it can be inferred that there have not been any major special events for any of the WECs that are included in the project activity. As a part of regular maintenance the WECs are stopped for mechanical and electrical maintenance for 16 to 18 hours annually and for visual inspection for 6 to 7 hours quarterly.

The reading is monitored continuously by the online monitoring station (online monitoring station is located at the project site where all the data [historical and instantaneous] from panel meters of all WECs is retrieved) at the project site. In case of data loss, the data can be archived from this online monitoring system.

The data (electricity supplied to the grid) will be archived on electronic media as well as on paper. The archive will be kept for the period up to two years after the completion of the crediting period.

Enercon (India) Limited has a separate training facility, called Enercon Training Academy, which gives training to the persons who are to be deployed On-Site to take

care of all the activities starting from project construction to operation to maintenance. Thus the requirements for training and regular maintenance is taken care by the O&M Contractor.

All internal data are been subjected to QA/QC measures under established management systems by the O&M contractor Enercon.

No significant deviations thereof have been observed during this 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 31 December 2012 and actual values achieved from 1 January 2013 onwards as follows:

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

	until 2012-12-31 ¹⁾	from 2013-01-01 ¹⁾	Sum
Emission reductions [tCO _{2e}]	8,258	4,519	12,777

¹⁾ 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.

Values applied in ex-ante calculation of the registered CDM-PDD is 18,827 tCO_{2e} (212 days equivalent of annually (365 days) **32,415** emission reductions estimated in the registered PDD) and actual values reached during the monitoring period is 12,777 tCO_{2e}.

The calculated value was found to be proportionally lower than the ex-ante 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 has been raised during the course of this 1st periodic verification.

6. VERIFICATION AND CERTIFICATION STATEMENT

Enercon (India) Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the 1st periodic verification of the project: “Wind Power Project in Tinwari, Rajasthan”, with regard to the relevant requirements for CDM project activities. The project reduces GHG emissions due to electricity generation by renewable energy (wind power) and supplying the same to NEWNE grid. This verification covers the period from 2012-08-01 to 2013-02-28(including both days).

In the course of the verification 03 Corrective Action Requests (CAR) and no Clarification Requests (CR) were raised and successfully closed. Furthermore no 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., ACM0002 ver. 12.2.0
- 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 1st 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:

12,777 t CO_{2e}

Emission reductions:

Mumbai, 2013-06-05



Jimmy Sah

TÜV NORD JI/CDM Certification
Program

Verification Team Leader

Essen, 2013-06-05



Kunal Rami

TÜV NORD JI/CDM Certification
Program

Final Approval



7. REFERENCES

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

Reference	Document
/BR/	Break Down and maintenance Records of the project activity WECs during the monitoring period.

Reference	Document
/CAL/	Calibration certificates for the substation meters (main meter and check meter) and the meter at Enercon substation.
/CC/	Commissioning certificate of all 25 WECs involved in the project activity dated 30/09/2011 and 09/11/2011
/GEN/	Generation at the Online meter for individual WECs and project WECs connected to the sub-station for specific months covering the entire monitoring period.
/INV/	Invoices raised to Grid operator during the monitoring period i.e. 01/08/2012 – 28/02/2013
/ISO/	ISO 9001:2008 of O&M contractor i.e. Enercon (India) Limited dated 08/02/2010 valid till 08/02/2013
/JMR/	Monthly JMR issued by JVVNL during the monitoring period i.e. 01/08/2012 – 28/02/2013 which provides the values for the sub-station.
/LS/	Project layout Design and metering cluster arrangement for the project activity.
/MR/	MR Version 01, dated 20/03/2013 based on which project assessment is carried out. MR Version 02, dated 22/04/2013 based on which verification opinion is concluded.
/O&M/	Operation and maintenance contract between Enercon (India) Limited.
/PPA/	Power Purchase Agreement between the Enercon India Limited and Jaipur Vidyut Vitran Nigam Limited dated 09/10/2011

Reference	Document
/TR/	Training records of the personal working onsite for the project activity.
/TS/	Technical specifications of the WECs
/XLS/	Emission reduction calculation sheet for the project activity ver 1, dated 20/03/2013

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM0002/	ACM0002 ver. 12.2.0, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” and the subsequent tools; <ul style="list-style-type: none"> • Tool to calculate the emission factor for an electricity system – Version 02 • Tool for the demonstration and assessment of additionality – Version 5.2
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/GLMP/	Guidelines: Completing the monitoring report form (EB 70, Annex 11)
/IPCC/	1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book
/KP/	Kyoto Protocol (1997)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)
/MRT/	Monitoring Report Form (F-CDM-MR), Version 03.1
/PDD/	Project Design Document for CDM project: “Wind Power Project in Tinwari, Rajasthan” version 05, dated 2012-07-23
/PS/	CDM Project Standard (Version 02.1, EB 70, Annex 2)

Reference	Document
/VAL/	Validation Report for CDM project “Wind Power Project in Tinwari, Rajasthan” version 2, dated 2012-07-24
/VVS/	CDM Validation and Verification Standard (Version 03.0, EB 70, Annex 3)

Table 7-3: Websites used

Reference	Link	Organisation
/UNFCCC/	http://cdm.unfccc.int	UNFCCC
/IPCC/	www.ipcc-nggip.iges.or.jp	IPCC publications

Table 7-4: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	V	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms	Anushree Mishra	Assistant Manager – CDM, Enercon India Limited
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	Deepak Dangwal,	Site incharge, Enercon India Limited

¹⁾ 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>)
Raw data generation				
<ul style="list-style-type: none"> • Installation of measuring equipment • Dysfunction of installed equipment • Maloperation by operational personnel • Downtimes of equipment • Exchange of equipment • Change of measurement equipment characteristic • Insufficient accuracy • Change of technology 	<ul style="list-style-type: none"> • Installation of modern and state of the art equipment • Process control automation • Internal data review • Regular visual inspections of installed equipment • Only skilled and trained personnel operates the relevant equipment • Daily raw data checks • Immediate exchange of dysfunctional equipment • Stand-by duty is 	<ul style="list-style-type: none"> • Inadequate installation / operation of the monitoring equipment • Inadequate exchange of equipment • Change of personnel • Undetected measurement errors • Inappropriateness of Management system procedures w.r.t. monitoring plan requirements (e.g. substitute value strategies) • Non-application of management system procedures • Insufficient accuracy • Inappropriate QA/QC 	<ul style="list-style-type: none"> • Site – visit • Check of equipment • Check of technical data sheets • Check of suppliers information / guarantees • Check of calibration records, if applicable • Check of maintenance records • Counter-check of raw data and commercial data • Check of CDM management system • Check of CDM related procedures 	<ul style="list-style-type: none"> • See Table A-2

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"> Accuracy of values supplied by Third Parties 	<ul style="list-style-type: none"> organized Training Internal audit procedures Internal check of QA/QC measures of involved Third Parties 	<ul style="list-style-type: none"> measures of Third Parties 	<ul style="list-style-type: none"> Application of CDM management system procedures Check of trainings Check of responsibilities Check of QA/QC documentation / evidences of involved Third Parties 	
Raw data collection and data aggregation				
<ul style="list-style-type: none"> Wrong data transfer from raw data to daily and monthly aggregated reporting forms IT Systems Spread sheet programming Manual data transmission Data protection Responsibilities 	<ul style="list-style-type: none"> Cross-check of data Plausibility checks of various parameters. Appropriate archiving system Clear allocation of responsibilities Application of CDM Management system procedures Usage of standard software solutions 	<ul style="list-style-type: none"> Unintended usage of old data that has been revised Incomplete documentation Ex-post corrections of records Ambiguous sources of information Non-application of management system procedures Manual data transfer mistakes 	<ul style="list-style-type: none"> Check of data aggregation steps Counter-calculation Data integrity checks by means of graphical data analysis and calculation of specific performance figures Check of management system certification Check of data archiving system 	<ul style="list-style-type: none"> See Table A-2

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) <ul style="list-style-type: none"> Limited access to IT systems Data protection procedures 	<ul style="list-style-type: none"> Unintended change of spread sheet programming or data base entries Problems caused by updating/upgrading or change of applied software 	<ul style="list-style-type: none"> Check of application of Management system procedures 	
Other calculation parameters				
<ul style="list-style-type: none"> Emission factors, oxidation factors, coefficients 	<ul style="list-style-type: none"> The values and data sources applied are defined in the PDD and monitoring plan 	<ul style="list-style-type: none"> Unintended or intended Modification of calculation parameters Wrong application of values Misinterpretations of the applied methodology and/ or the PDD Missing update of applicable regulatory framework (e.g. IPCC values) 	<ul style="list-style-type: none"> Update-check of regulatory framework Countercheck of the applied MP in the MR against the methodology and the PDD 	<ul style="list-style-type: none"> See Table A-2

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>)
Calculation Methods				
<ul style="list-style-type: none"> • Applied formulae • Miscalculation • Mistakes in spread-sheet calculation 	<ul style="list-style-type: none"> • Advanced calculation and reporting tools • A CDM coordinator is in charge of the CDM related calculations • Usage of tested / counterchecked Excel spreadsheets • Involvement of external consultants 	<ul style="list-style-type: none"> • The danger of miscalculation can only be minimized. 	<ul style="list-style-type: none"> • Countercheck on the basis of own calculation. • Spread sheet walk-through. • Plausibility checks • Check of plots 	<ul style="list-style-type: none"> • See Table A-2
Monitoring reporting				
<ul style="list-style-type: none"> • Data transfer to the author of the monitoring report • Data transfer to the monitoring report • Unintended use of outdated versions 	<ul style="list-style-type: none"> • An experienced CDM consultant is responsible for monitoring reporting. • CDM QMS procedures are defined 	<ul style="list-style-type: none"> • The danger of data transfer mistakes can only be minimized • Inappropriate application of QMS procedures 	<ul style="list-style-type: none"> • Counter check with evidences provided. • Audit of procedure application 	<ul style="list-style-type: none"> • See Table A-2

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.
A. Description of the project activity				
A.1. Purpose and general description of the project activity (EB 70, Annex 11, A.1) <i>Check if section A.1 of the MR includes the following:</i> <ul style="list-style-type: none"> - Purpose of the PA and the measures taken to reduce GHG emissions - Brief description of the installed technology and equipment - Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc.) - Total emission reductions achieved in this monitoring period 	/MR/	<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"> <input checked="" type="checkbox"/> Purpose of the PA and the measures taken to reduce GHG emissions <input checked="" type="checkbox"/> Brief description of the installed technology and equipments <input checked="" type="checkbox"/> Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc) <input checked="" type="checkbox"/> Total emission reductions achieved in this monitoring period <p>In this context the following findings have been identified:</p>	OK	OK
A.2. Location of project activity (EB 70, Annex 11, A.2) <i>Check if section A.2 of the MR reflects correctly the following:</i> <ul style="list-style-type: none"> - Host Party(ies) - Region / State / Province etc. - City / Town / Community etc. 	/MR/ /PDD/ /IM01/	<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"> <input checked="" type="checkbox"/> Host Party(ies) <input checked="" type="checkbox"/> Region / State / Province <input checked="" type="checkbox"/> City / Town / Community 	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
- <i>Physical / geographical location (e.g. Latitude and Longitude)</i>		<input checked="" type="checkbox"/> Physical / Geographical location In this context the following findings have been identified:		
A.3. Parties and Project Participants (EB 70, Annex 11, A.3) Check if section A.3 of the MR includes the following: <ul style="list-style-type: none"> - <i>All PPs as displayed on the UNFCCC website</i> - <i>A correctly filled table as per the MR template</i> 	/MR/ /unfccc/	The verification team has checked section A.3 of the MR as well as the UNFCCC website and confirms that: <ul style="list-style-type: none"> <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:	OK	OK
A.4. Reference of applied methodology (EB 70, Annex 11, A.4) Check if section A.4 of the MR correctly describes / includes the following: <ul style="list-style-type: none"> - <i>Reference to the applicable version of the methodology</i> - <i>Reference to the applicable version(s) of relevant methodological tools</i> - <i>Relevant EB decisions, if applicable</i> 	/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: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Number, title and version of the applicable CDM Methodology <input checked="" 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: N/A	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
A.5. Crediting period of project activity (EB 70, Annex 11, A.5) <i>Check if section A.5 of the MR correctly includes the following:</i> <ul style="list-style-type: none"> - <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> - <i>Length and type of the crediting period</i> 	/MR/ /unfccc/	<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"> <input checked="" type="checkbox"/> Start date of the crediting period. <input checked="" type="checkbox"/> Type and length of the crediting period <p>In this context the following findings have been identified: N/A</p>	OK	OK
A.6. Publication of the Monitoring Report (EB70, Annex 3, § 207) <i>Check if the monitoring report has been made publicly available on the UNFCCC website before the verification commenced.</i> <i>Check if comments have been received and if yes, how they have been addressed.</i>	/unfccc/	<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"> <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. <input checked="" type="checkbox"/> No comments have been received. <p>In this context the following findings have been identified: N/A</p>	OK	OK
A.7. Compliance with standardized format of the Monitoring Report (EB70, Annex 3, § 212 e) <i>Check (only) if the latest applicable MR template has been used. For compliance assessment with the MR</i>	/MRT/ /MR/	<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"> <input checked="" type="checkbox"/> the standardized MR template has been used <p>In this context the following findings have been identified:</p>	CAR A+	OK CAR A1 closed

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>guideline pl. refer to the respective MR sections.</i>		The MR under various sections has editorials and the words are not readable.		
B. Implementation of project activity				
B.1. Description of implemented registered project activity (EB 70, Annex 11, B.1) <i>Check if section B.1 of the MR correctly describes / includes the following:</i> <ul style="list-style-type: none"> - Implementation status of the PA - Detailed description of installed technology(ies) / technical processes and equipment applied - Diagrams (where appropriate) 	/MR/ /PDD/ /PS/ /IM01/	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: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> the description of the implementation status of the PA is in line with the applicable provisions of the project standard <input checked="" type="checkbox"/> an appropriate description of the installed technology(ies), technical process and equipment incl. diagrams, where applicable, has been included In this context the following findings have been identified: NA	OK	OK
B.1.1. Initial project implementation (EB70, Annex 3; § 225 a, 226) <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> <i>Further focus on the potential phase wise implementation and check the reporting on the corresponding status and starting dates accordingly.</i>	/IM01/ /PDD/ /CC/	<i>Description:</i> The project is implemented as described in the PDD as well as all the physical features of the project are in place. The project includes 25 WECs from which 13 WECs were commissioned on 30/09/2011 and next 12 WECs were commissioned on 09/11/2011 the details of the same are confirmed from the commissioning certificates. <i>Verifier's action:</i> Crosschecked with the physical implementation of project during the site visit. The commissioning dates of the WECs installed	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>Check if the project is still in compliance with the applicability conditions of the methodology.</i></p> <p><i>Also, discuss – if applicable – the necessity of PRC notifications / approvals.</i></p>		<p>before registration have been confirmed with the registered PDD and commissioning certificates and commissioning dates of the WECs installed after registration have been checked with the commissioning certificates and site visit.</p> <p><i>Conclusion:</i> There is no change in project implementation since registration of the project activity.</p>		
<p>B.1.2. Technical equipment changes -(EB70, Annex 3; § 225 a, 226)</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>	/IM01/ /PDD/	<p><i>Description:</i> The project activity consists of 25 WECs of 800 kW capacities each aggregating a total installed capacity of 20 MW. Technical equipment of the project activity has not been changed or modified during the monitoring period. The project is in line with the registered PDD in terms of operation.</p> <p><i>Verifier's action:</i> According to the discussions carried out with plant personnel onsite and subsequent document review i.e. technical specification it was confirmed that the project technical lifetime is 20 years.</p> <p><i>Conclusion:</i> No technical equipment in the project has been changed.</p>	OK	OK
<p>B.1.3. Operation of the project activity -(EB70, Annex 3; § 225 a, 226)</p>	/IM01/ /PDD/	<p><i>Description:</i> The project activity consists of 25 WECs of 800 kW capacities each, and the operation of the project activity is in line</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<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 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>with the monitoring plan in terms of operation. The operation mode of the project have not been changed / replaced during the monitoring period.</p> <p><i>Verifier's action:</i> As stated in the interview with the operational personnel no change in the project equipment is observed.</p> <p><i>Conclusion:</i> All the operation modes are as per the registered PDD. During the onsite visit the subsequent documents are cross checked and found ok.</p>		
<p>B.1.4. Incidents (EB70, Annex 3; § 225 a, 226)</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/ /MR/ /BR/</p>	<p><i>Description:</i> During the onsite visit and discussion with PP, it was found that there were no such significant forced downtime occurred for this monitoring period except for the scheduled maintenance and operational breakdowns.</p> <p><i>Verifier's action:</i> The O&M contractor, Enercon (India) limited maintains the record of the project operation. During the site visit the same was checked and found correct.</p> <p><i>Conclusion:</i> There were no significant breakdowns observed for the project activity during this monitoring period.</p>	OK	OK
<p>B.1.5. Legislation</p>	<p>/IM01/</p>	<p><i>Description:</i> The legislation has not changed w.r.t projects for which the PPA is already signed and is valid for a period of 20</p>		OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
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. Assess, in case of changes, whether consequences for the PA with regard to relevant CDM requirements have been accounted for. In case of changes data sources shall be referenced.	/PPA/ /CC/ /VAL/	years from commissioning. No regulation with impact on the project could be identified. <i>Verifier's action:</i> The legislation for projects already implemented remains as described in the PPA. Conclusion: Relevant legislation associated with this project activity has not changed during this monitoring period.	OK	
B.1.6. Open issues from validation -(EB70, Annex 3; § 213) <i>Check (esp. in case of 1st periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR)?</i>	/VAL/	<input type="checkbox"/> There were no open issues addressed in the validation report <input checked="" 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:	OK	OK
B.1.7. Open issues from previous verification -(EB70, Annex 3; §§ 213; 284 h) <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>	/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:	OK	OK
B.2. Post registration changes				

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																																		
B.2.1. Are post registration changes applicable to the proposed project activity?		<div><div><input checked="" 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. (Please proceed with section C)</div><div><input type="checkbox"/> Yes, post registration changes have been identified and are assessed in detail in the subsequent steps. (Please proceed with B.2.2.)</div></div>	OK	OK																																		
B.2.2. Temporary deviations from the registered monitoring plan or applied methodology (TDfrMP; TDfMM) <i>(EB 70, Annex 11, B.2.1; EB70, Annex 3; §§ 251 - 256)</i> <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</i>	/PS/ /unfccc/	<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">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="3">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 colspan="2"></td></tr><tr><td>Status</td><td colspan="2"><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Appr.date</td><td colspan="2"></td></tr><tr><td>Ref. No.</td><td colspan="2"></td></tr><tr><td rowspan="4">2</td><td>Title</td><td colspan="2"></td></tr><tr><td>Status</td><td colspan="2"><input type="checkbox"/> under approval; <input type="checkbox"/> approved</td></tr><tr><td>Appr.date</td><td colspan="2"></td></tr><tr><td>Ref.No.</td><td colspan="2"></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.			OK	OK
<input checked="" type="checkbox"/>	No TDfrMP or TDfMM.have been submitted to the UNFCCC prior to the current monitoring period																																					
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Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)			Draft Concl.	Final Concl.		
<i>factors have been applied.</i> <i>For deviation(s) that require prior approval by the Board, include the date of approval and reference number.</i>		<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:					
			1	Issue:				
			2	Issue:				
		<i>In cases of approved TDfrMP or TDfM the EB guidance has been applied as follows:</i>						
		<i>Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:</i>						
		In this context the following findings have been identified: N/A						
B.2.3. Corrections	/MR/							

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																	
<p>(EB 70, Annex 11, B.2.2; EB70, Annex 3; §§ 257 - 259)</p> <p>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.</p> <p>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.</p> <p>Please check and report that the corrected 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.</p>	/PDD/	<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">During the verification of the current MP no need for corrections has been identified.</td></tr><tr><td rowspan="3"><input type="checkbox"/></td><td colspan="3">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>Detailed description and justification each correction:</p> <p>In this context the following findings have been identified: 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:		OK	OK			
<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>B.2.4. Permanent changes from the registered monitoring plan or applied methodology (PCfrMP; PCfMM)</p> <p>(EB 70, Annex 11, B.2.3; EB70, Annex 3; §§ 262 - 268)</p> <p>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.</p> <p>In cases where the change(s) and the revised PDD</p>	/MR/ /PDD/ /PPA/	<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="5"><input type="checkbox"/></td><td colspan="3">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></table>	<input checked="" 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.		OK	OK
<input checked="" 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.																			

Checklist Item (incl. guidance for the verification team)	Refe- rence	Verification Team Comments (Means and results of assessment)				Draft Concl.	Final Concl.		
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.			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:					
		<input type="checkbox"/>	The following PCfrMP or PCfMM for which appendix 1 of the PS is applicable have been applied:						
			1	Issue:	The calibration frequency as per the PDD is on annual basis, however as per the registered PPA the calibration frequency is once in 3 years.				
			2	Issue:					
		In cases of approved PCfrMP or PCfMM the EB guidance has been applied as follows:							

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																											
		<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:</p> <p>NA</p>																													
<p>B.2.5. Changes to the project design of the registered project activity (CoPD) <i>(EB 70, Annex 11, B.2.4; EB70, Annex 3; §§ 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>	<p>/MR/ /PDD/ /ACM000 2/</p>	<table><tr><td><input checked="" type="checkbox"/></td><td colspan="3">No CoPD has been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="8"><input type="checkbox"/></td><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="3">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</td></tr></table>	<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period			<input type="checkbox"/>	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			OK	OK
<input checked="" type="checkbox"/>	No CoPD has been submitted to the UNFCCC prior to the current monitoring period																														
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<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																														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<div>the PA.</div> <div> <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. <div> <div>1</div> <div>Issue:</div> <div></div> </div> <div> <div>2</div> <div>Issue:</div> <div></div> </div> </div> <div> <input type="checkbox"/> The following CoPD for which appendix 1 of the PS is applicable have been applied: <div> <div>1</div> <div>Issue:</div> <div></div> </div> <div> <div>2</div> <div>Issue:</div> <div></div> </div> </div> <div> <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 of the CDM Project Standard is applicable:</i></p> <p>In this context the following findings have been identified:</p> <p>N/A</p> </div>		
C. Description of monitoring system				
C.1. Monitoring Plan – PDD Compliance (EB 70 Annex 3, §§ 233-236) <i>Check if the monitoring plan is in accordance with the monitoring plan contained in the registered PDD (or</i>	/MR/ /PDD/	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:		OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.											
<p><i>any accepted revised MP).</i></p> <p><i>Please check esp. if</i></p> <ul style="list-style-type: none"><i>- all parameters stated in the MP of the registered PDD have been monitored and updated as applicable</i><i>- the monitoring equipment has been controlled and calibrated as per the MP</i><i>- the monitoring results are consistently recorded as per the approved frequency</i><i>- QA/QC procedures have been applied in accordance with the MP</i>		<table><tr><td><input type="checkbox"/></td><td colspan="2">The MP is completely in accordance with the registered PDD.</td></tr></table> <p>In this context the following findings have been identified:</p> <p>During the site visit it is observed that the Enercon sub-station at Salodi has provisions for monitoring the generation in form of main and check meters, however the MR does not provide the details for the Check meter installed.</p>	<input type="checkbox"/>	The MP is completely in accordance with the registered PDD.		<div>CAR C1</div>	<div>CAR C1 closed</div>								
<input type="checkbox"/>	The MP is completely in accordance with the registered PDD.														
<p>C.2. Monitoring Plan – Meth Compliance (EB 70 Annex 3, §§ 229-232)</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>	<div>/MR/ /PDD/ /ACM000 2/ /</div>	<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><tr><td><input checked="" type="checkbox"/></td><td colspan="2">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><input checked="" type="checkbox"/></td><td colspan="2">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 rowspan="2">1</td><td>Title (of the tool)</td><td>Tool to calculate the emission factor for an electricity system</td></tr><tr><td>Version</td><td>02</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 emission factor for an electricity system	Version	02	<div>OK</div>	<div>OK</div>
<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 emission factor for an electricity system													
	Version	02													

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)				Draft Concl.	Final Concl.
			2	MP compliance	<input type="checkbox"/> full compliance <input type="checkbox"/> findings have been raised <input checked="" type="checkbox"/> N/A (for MP)		
				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 <input checked="" type="checkbox"/> N/A (for MP)		
				In this context the following findings have been identified: Regarding aspects that are not specified in the methodology the following issues have been identified which may enhance the level of accuracy and completeness of the MP: N/A			
C.3. Management System (EB 70 Annex 3, § 217 (iii)) Check if the GHG data monitoring system can be assessed as appropriate. In case reference is made to a (certified) company quality management system, check if all CDM related	/ISO/ /CAL/ /TR/ /IM01/ /IM02/ /PPA/	Description: Enercon (India) Limited is responsible for maintaining all the monitoring data, recording, reporting, and archiving the data. It is ISO 9001:2008 certified and have management structure for managing the monitoring data. The meter reading is being taken jointly by the representatives of Enercon and GETCO in the form of JMR. The net electricity generated by the project owners is				OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>monitoring procedures have been fully integrated in the project participant's quality management system.</i></p> <p><i>In case of a stand-alone system, check how the GHG management system has been implemented and effectiveness is ensured.</i></p>		<p>being provided to Enercon by GETCO in form of share certificate of electricity generated. Subsequently Enercon provides the same to individual Project owners.</p> <p><i>Verifier's action:</i> ISO certificate of Enercon (India) Limited is crosschecked along with the calibration reports and interview with the O&M officials to confirm that proper Management systems are being followed. Besides training records by the personnel working at site have been checked.</p> <p><i>Conclusion:</i> GHG data monitoring system is appropriate.</p>		
<p>C.4. Metering diagram (EB 70, Annex 11, C; EB 70 Annex 2 §193)</p> <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>/IM01/ /MR/ /LS/ /PDD/</p>	<p><i>Description:</i> The project activity have various clusters and each cluster has exclusive metering arrangement and the meter readings taken at these metering points have been provided by the representatives of Enercon to GEDA. The same has been described in the section C of the MR, which is in line with the approved registered PDD.</p> <p><i>Verifier's action:</i> The metering positions have been confirmed during the physical visit to the site and with the project layout and found correct.</p> <p><i>Conclusion:</i> The diagram presented in the MR reflects the actual situation and is in line with the registered PDD.</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
C.5. Roles and Responsibilities (EB 70, Annex 11, C; EB 70 Annex 2 §193) <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> <i>Identify, if relevant personnel w.r.t. monitoring has been exchanged?</i> <i>If so, have appropriate training measures been carried out.</i> <i>In case of changes, assure that the implemented monitoring procedures have not been affected.</i>	/PS/ /MR/ /ISO/ /TR/ /IM01/	<i>Description:</i> EIL has the operation and maintenance contract for monitoring related to the project. EIL is ISO 9000:2008 certified. Responsibilities for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel are in place. <i>Verifier's action:</i> ISO certificate and Training records are cross-checked and are acceptable. Also during the site visit it was observed that all the data acquired is in the safe custody of the project participant. <i>Conclusion:</i> The role for each person starting from the data archiving to consolidate data is in place for the project activity. The assessment team found it correct and accurate.	OK	OK
C.6. Emergency procedures for the monitoring system (EB 70 Annex 11, C; EB 70 Annex 2 §193) <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>	/PS/ /IM01/ /IM02/	<i>Description:</i> The emergency procedures have been described in the MR. In case of meter failure, the meter located at the utility sub-station at Salodi shall be considered. <i>Verifier's action:</i> During the site visit the procedures have been confirmed with GETCO officials. <i>Conclusion:</i> The emergency procedures have been discussed and are acceptable.	OK	OK
C.7. Data archive and data protection (EB 70 Annex 2 §56 b)	/MR/ /IM01/	<i>Description:</i> The data (electricity supplied to the grid) will be archived on	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
Check whether all records of monitoring parameters are archived according to the monitoring plan. Assess further whether appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data.		electronic media as well as on paper. The archive will be kept for the period up to two years after the completion of the crediting period. <i>Justification of evidences:</i> During the site visit it was observed that the data archiving procedure and data management structure is as per the registered PDD Conclusion: OK, data is archived appropriately.		
D. Data and parameters				
D.1. Data and Parameters fixed ex ante				
a) Compliance with registered PDD (EB 70 Annex 11; D1) Check whether the value applied is in compliance with the registered PDD.	/MR/ /PDD/ /CEA/	<i>Description:</i> The project applies three parameters which have been fixed ex ante, i.e. $EF_{OM,y}$, $EF_{BM,y}$ and $EF_{CM,y}$ The values have been confirmed with the registered PDD. <i>Verifier's action:</i> The values have been confirmed with the registered PDD and are matching. Further the value is in line with CEA Version 06. <i>Conclusion:</i> The parameters fixed ex-ante are in line with the values as mentioned in the registered PDD.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
b) Compliance with the applied methodology (EB 70 Annex 11; D1) Check whether the value applied is in compliance with the applied methodology or any other tool.	/MR/ /PDD/	<i>Description:</i> There are no parameters fixed ex-ante based on the applied methodology <i>Verifier's action:</i> The registered PDD and the applied methodology have been checked to confirm the same. <i>Conclusion:</i> No parameter has been fixed based on the applied methodology.	OK	OK
D.2. Data and Parameters monitored				
D.2.1. EG_{facility,y}		Description: Net electricity generation supplied to the grid by the Project activity.		
a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236) Describe how the monitoring parameter was measured / determined. 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. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/IM01/ /PDD/ /MR/ /PPA/ /XLS/ /GETCO/	<i>Description:</i> The net electricity generated by the project activity has been calculated based on the Joint Meter Reading values taken for all the WECS connected to the sub-station and the apportioning the same based on the ratio of generation from each. Subsequently the values have been cross-checked with the invoices raised by PP to the grid. <i>Verifier's action:</i> The measurement procedure has been verified by interview with the O&M team during onsite verification conducted by the verification team. The share of electricity and the invoices raised by PP to the grid for the entire monitoring period are verified by the verification team and found to be appropriate.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<i>Conclusion:</i> The verification team concludes that the measurement method of the parameter is in line with the registered monitoring plan and the applied methodology, ACM0002, Version 12.2.0		
b) Accuracy and QA/QC Procedure (EB 70 Annex 3, §§ 237-241) <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> <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>	/CAL/ /ISO/ /O&M/	<i>Description:</i> This parameter is calculated thus accuracy is not applicable. Further the QA/QC procedures are in line and the O&M contractor Enercon is ISO 9001 certified and has proper process for data management and control. <i>Verifier's action:</i> As the parameter is calculated thus calibration is not applicable for the parameter. ISO certificate for Enercon (India) limited is available and is valid. <i>Conclusion:</i> Proper QA/QC procedures are in place.	OK	OK
c) Correctness (EB 70 Annex 3, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <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</i>	/MR/ /XLS/ /INV/	<input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment) <i>Description:</i> Verification team assessed the values given in the monitoring report and emission reduction calculation sheet and found that net generation of electricity from the project activity for the monitoring period is matching with the calculation and the same is cross-checked with the invoices raised by the PP to the state grid.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>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></p> <p>The JMR for electricity exported from the sub-station, the generation values and the invoices for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The value given in the MR is correct.</p>		
D.2.2. EG_{GETCO}, Export		Description: Electricity export to the grid by the Project activity		
<p>a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236)</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>/IM01/ /PDD/ /INV/ /XLS/ /GETCO/</p>	<p><i>Description:</i></p> <p>The electricity export by the project is calculated based on the apportioning approach considering the ratio of gross generation for the WECs connected to the sub-station and the gross generation from the project activity.</p> <p>The energy meters used for the measurement have been found not to be replaced during the monitoring period and no failure of the equipment occurred. The measurement method is in line with the registered monitoring plan of the PDD and the applied methodology.</p> <p><i>Verifier's action:</i></p> <p>The JMR for electricity exported from the sub-station, the generation values and the invoices for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The verification team concludes that the parameter has been monitored as per the procedure defined in the</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		registered PDD and applied methodology ACM0002, version 12.2.0 And no relevant key equipment has been changed/ replaced during the monitoring period		
<p>b) Accuracy and QA/QC Procedure (EB 70 Annex 3, §§ 237-241)</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/ /ISO/ /O&M/</p>	<p><i>Description:</i></p> <p>This parameter is monitored by the energy meter located at EIL substation. The meter installed to monitor this data is calibrated once in a year as per the monitoring plan and the accuracy class of this meter is $\pm 0.2\%$.</p> <p>Further, all the WECs connected to the substation has integrated control panel which displays the generation from the individual WTGs. Same generation data are stored in central monitoring system. Generation of individual WECs are directly monitored.</p> <p>All the controller connected to the WTGs are self-correcting type. Hence calibration for the same is not required. Thus, QA/QC is in line with the revised monitoring plan.</p> <p>Further the QA/QC procedures are in line and the O&M contractor Enercon is ISO 9001 certified and has proper process for data management and control.</p> <p><i>Verifier's action:</i></p> <p>The calibration certificates are checked and found correct. ISO certificate for Enercon (India) Limited is available and is valid.</p> <p><i>Conclusion:</i></p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		Proper QA/QC procedures are in place.		
c) Correctness (EB 70 Annex 3, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <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> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/	<input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment) <i>Description:</i> The electricity export by the project is calculated based on the apportioning approach considering the ratio of gross generation for the WECs connected to the sub-station and the gross generation from the project activity. The calculated values are cross-checked with invoices raised by the PP to the DISCOM. <i>Verifier's action:</i> The JMR for electricity exported from the sub-station, the generation values and the invoices for the entire monitoring period are verified by the verification team. <i>Conclusion:</i> The verification team concludes that the values given in the monitoring report is correct and justified.	OK	OK
D.2.3. EG_{Import,y}		Description: Electricity Import from grid by the Project activity		
a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined.</i> <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</i>	/IM01/ /IM02/ /PDD/ /GETCO/ /CAL/ /CC/ /JMR/	<i>Description:</i> The electricity import by the project is calculated based on the apportioning approach considering the ratio of gross generation for the WECs connected to the sub-station and the gross generation from the project activity. The ratio is considered to apportion the import monitored at the connected sub-station. The energy meters used for the measurement have been found not to be replaced during the monitoring period and no failure of the equipment occurred. The measurement method is in line	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>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>with the registered monitoring plan of the PDD and the applied methodology.</p> <p><i>Verifier's action:</i></p> <p>The JMR for electricity imported from the sub-station, the generation values and the invoices for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The verification team concludes that the parameter has been monitored as per the procedure defined in the registered PDD and applied methodology ACM0002, version 12.2.0 And no relevant key equipment has been changed/ replaced during the monitoring period</p>		
<p>b) Accuracy and QA/QC Procedure (EB 70 Annex 3, §§ 237-241)</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/ /ISO/ /O&M/</p>	<p><i>Description:</i></p> <p>This parameter is monitored by the energy meter located at EIL substation. The meter installed to monitor this data is calibrated once in a year as per the monitoring plan and the accuracy class of this meter is $\pm 0.2\%$.</p> <p>Further, all the WECs connected to the substation has integrated control panel which displays the generation from the individual WTGs. Same generation data are stored in central monitoring system. Generation of individual WECs are directly monitored.</p> <p>All the controller connected to the WTGs are self-correcting type. Hence calibration for the same is not required. Thus, QA/QC is in line with the revised monitoring plan.</p> <p>Further the QA/QC procedures are in line and the O&M</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<p>contractor Enercon is ISO 9001 certified and has proper process for data management and control.</p> <p><i>Verifier's action:</i></p> <p>The calibration certificates are checked and found correct. ISO certificate for Enercon (India) Limited is available and is valid.</p> <p><i>Conclusion:</i></p> <p>Proper QA/QC procedures are in place.</p>		
<p>c) Correctness (EB 70 Annex 3, §§ 233, 236)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative 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>/MR/ /GETCO/</p>	<p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p> <p>The electricity import by the project is calculated based on the apportioning approach considering the ratio of gross generation for the WECs connected to the sub-station and the gross generation from the project activity. The calculated values are cross-checked with invoices raised by the PP to the DISCOM.</p> <p><i>Verifier's action:</i> The JMR for electricity imported from the sub-station, the generation values and the invoices for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The verification team concludes that the values given in the monitoring report is correct and justified.</p>	OK	OK
D.2.4. EG_{JMR, Export}		Description: Electricity export by project activity & non project activity recorded by main meter		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		installed at DISCOM sub-station.		
<p>a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236)</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>	/IM01/ /IM02/ /PDD/ /CAL/ /CC/ /JMR/	<p><i>Description:</i></p> <p>The electricity export at the PS 08- Narwa sub-station is monitored monthly in join presence of Enercon officials and the officials from the state electricity board. The values are recorded in the Joint Meter Reports and is available for the monitoring period.</p> <p>The energy meters used for the measurement have been found not to be replaced during the monitoring period and no failure of the equipment occurred. The measurement method is in line with the registered monitoring plan of the PDD and the applied methodology.</p> <p><i>Verifier's action:</i></p> <p>The JMR for electricity exported from the sub-station for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The verification team concludes that the parameter has been monitored as per the procedure defined in the registered PDD and applied methodology ACM0002, version 12.2.0 And no relevant key equipment has been changed/ replaced during the monitoring period</p>	OK	OK
<p>b) Accuracy and QA/QC Procedure (EB 70 Annex 3, §§ 237-241)</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</i></p>	/CAL/ /ISO/ /O&M/	<p><i>Description:</i></p> <p>This parameter is monitored by the energy meter located at EIL substation. The meter installed to monitor this data is calibrated once in a year as per the monitoring plan and the accuracy class of this meter is $\pm 0.2\%$.</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>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>Further the QA/QC procedures are in line and the O&M contractor Enercon is ISO 9001 certified and has proper process for data management and control.</p> <p><i>Verifier's action:</i></p> <p>The calibration certificates are checked and found correct. ISO certificate for Enercon (India) limited is available and is valid.</p> <p><i>Conclusion:</i></p> <p>Proper QA/QC procedures are in place.</p>		
<p>c) Correctness (EB 70 Annex 3, §§ 233, 236)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative 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>/MR/ /JMR/</p>	<p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p> <p>The electricity export at the PS 08- Narwa sub-station is monitored monthly in join presence of Enercon officials and the officials from the state electricity board. The values are recorded in the Joint Meter Reports and is available for the monitoring period.</p> <p><i>Verifier's action:</i></p> <p>The JMR for electricity exported from the sub-station for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The verification team concludes that the values given in the monitoring report is correct and justified.</p>	OK	OK
D.2.5. EG_{JMR, Import}		Description: Electricity import by project activity & non		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		project activity recorded by main meter installed at DISCOM sub-station		
<p>a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236)</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>/IM01/ /IM02/ /PDD/ /CAL/ /CC/ /JMR/</p>	<p><i>Description:</i> The electricity import at the PS 08- Narwa sub-station is monitored monthly in join presence of Enercon officials and the officials from the state electricity board. The values are recorded in the Joint Meter Reports and is available for the monitoring period.</p> <p>The energy meters used for the measurement have been found not to be replaced during the monitoring period and no failure of the equipment occurred. The measurement method is in line with the registered monitoring plan of the PDD and the applied methodology.</p> <p><i>Verifier's action:</i> The JMR for electricity imported from the sub-station for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The verification team concludes that the parameter has been monitored as per the procedure defined in the registered PDD and applied methodology ACM0002, version 12.2.0 And no relevant key equipment has been changed/ replaced during the monitoring period</p>	OK	OK
<p>b) Accuracy and QA/QC Procedure (EB 70 Annex 3, §§ 237-241)</p> <p><i>In case of measured (or estimated) values, check whether the accuracy of equipment used for</i></p>	<p>/CAL/ /ISO/ /O&M/</p>	<p><i>Description:</i> This parameter is monitored by the energy meter located at EIL substation. The meter installed to monitor this data is calibrated once in a year as per the monitoring plan and the accuracy class</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>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>of this meter is $\pm 0.2\%$.</p> <p>Further the QA/QC procedures are in line and the O&M contractor Enercon is ISO 9001 certified and has proper process for data management and control.</p> <p><i>Verifier's action:</i></p> <p>The calibration certificates are checked and found correct. ISO certificate for Enercon (India) limited is available and is valid.</p> <p><i>Conclusion:</i></p> <p>Proper QA/QC procedures are in place.</p>		
<p>c) Correctness (EB 70 Annex 3, §§ 233, 236)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative 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>/MR/ /JMR/</p>	<p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p> <p>The electricity import at the PS 08- Narwa sub-station is monitored monthly in join presence of Enercon officials and the officials from the state electricity board. The values are recorded in the Joint Meter Reports and are available for the monitoring period.</p> <p><i>Verifier's action:</i></p> <p>The JMR for electricity imported from the sub-station for the entire monitoring period are verified by the verification team.</p> <p><i>Conclusion:</i> The verification team concludes that the values given in the monitoring report is correct and justified.</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
D.2.6. EG_{Controller, i}		Description: Net electricity generation (Gross Export – Gross Import) by a WEG of project activity or non project activity, as measured at the controller (LCS meter) at project site		
a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined.</i> <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> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /IM02/ /PDD/ /GEN/	Description: LCS meter (panel meters) measures the net electricity generation (Gross Export – Gross Import) by WEG and doesn't provide individual reading of Export & Import. The value is monitored continuously and recorded daily by the online monitoring station at the site. In addition to the daily generation report and monthly generation report are also available at monitoring station. Verifier's action: The gross generation values from the project activity are available and have been checked for the monitoring period. Conclusion: The verification team concludes that the parameter has been monitored as per the procedure defined in the registered PDD and applied methodology ACM0002, version 12.2.0 And no relevant key equipment has been changed/ replaced during the monitoring period	OK	OK
b) Accuracy and QA/QC Procedure (EB 70 Annex 3, §§ 237-241) <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</i>	/PDD/ /ISO/ /O&M/	Description: The project WECs have integrated control panel which displays the generation from the individual WECs. Same generation data are stored in central monitoring system. Generation of individual WECs are directly monitored.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>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>All the controller connected to the WECs are self-correcting type. Hence calibration for the same is not required. Thus, QA/QC is in line with the revised monitoring plan.</p> <p>Further the QA/QC procedures are in line and the O&M contractor Enercon is ISO 9001 certified and has proper process for data management and control.</p> <p><i>Verifier's action:</i></p> <p>The calibration certificates are checked and found correct. ISO certificate for Enercon (India) Limited is available and is valid.</p> <p><i>Conclusion:</i></p> <p>Proper QA/QC procedures are in place.</p>		
<p>c) Correctness (EB 70 Annex 3, §§ 233, 236)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative 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>/MR/ /GETCO/</p>	<p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p> <p>LCS meter (panel meters) measures the net electricity generation (Gross Export – Gross Import) by WEG and doesn't provide individual reading of Export & Import. The value is monitored continuously and recorded daily by the online monitoring station at the site. In addition to the daily generation report and monthly generation report are also available at monitoring station.</p> <p><i>Verifier's action:</i> The gross generation values from the project activity are available and have been checked for the monitoring period.</p> <p><i>Conclusion:</i> The verification team concludes that the values given in the monitoring report is correct and justified.</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
D.2.7. $\Sigma EG_{\text{Controller},i}$		Description: Summation of net electricity generation (Gross Export-Gross Import) by all WEG (i number of WEGs) of project activity (j number of WEGs) and non-project activity (k number of WEGs), as measured at the controller (LCS meter) at project site		
a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined.</i> <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> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /IM02/ /PDD/ /GEN/	Description: LCS meter (panel meters) measures the net electricity generation (Gross Export – Gross Import) by each WEG and doesn't provide individual reading of Export & Import . The value is monitored continuously and recorded daily by the online monitoring station at the site. In addition to the daily generation report and monthly generation report are also available at monitoring station. Verifier's action: The gross generation values from the project WECs and other WECs connected to the sub-station is available and has been checked for the monitoring period. Conclusion: The verification team concludes that the parameter has been monitored as per the procedure defined in the registered PDD and applied methodology ACM0002, version 12.2.0 And no relevant key equipment has been changed/ replaced during the monitoring period	OK	OK
b) Accuracy and QA/QC Procedure	/PDD/	Description:	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p>(EB 70 Annex 3, §§ 237-241)</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>	/ISO/ /O&M/	<p>The WECs have integrated control panel which displays the generation from the individual WECs. Same generation data are stored in central monitoring system. Generation of individual WECs are directly monitored.</p> <p>All the controller connected to the WECs are self-correcting type. Hence calibration for the same is not required. Thus, QA/QC is in line with the revised monitoring plan.</p> <p>Further the QA/QC procedures are in line and the O&M contractor Enercon is ISO 9001 certified and has proper process for data management and control.</p> <p><i>Verifier's action:</i></p> <p>The calibration certificates are checked and found correct. ISO certificate for Enercon (India) Limited is available and is valid.</p> <p><i>Conclusion:</i></p> <p>Proper QA/QC procedures are in place.</p>		
<p>c) Correctness</p> <p>(EB 70 Annex 3, §§ 233, 236)</p> <p><i>Determine whether the value given in the monitoring report is correct or determined in a conservative 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>	/MR/ /GEN/ /PDD/	<p><input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment)</p> <p><i>Description:</i></p> <p>LCS meter (panel meters) measures the net electricity generation (Gross Export – Gross Import) by eachWEG and doesn't provide individual reading of Export & Import . The value is monitored continuously and recorded daily by the online monitoring station at the site. In addition to the daily generation report and monthly generation report are also available at monitoring station.</p> <p><i>Verifier's action:</i> The gross generation values from the project</p>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>		WECs and other WECs connected to the sub-station is available and has been checked for the monitoring period. <i>Conclusion:</i> The verification team concludes that the values given in the monitoring report is correct and justified.		
D.2.8. $\Sigma EG_{\text{Controller, j}}$		Description: Summation of net electricity generation (Gross Export – Gross Import) by all the WEGs (j number of WEGs) of project activity, as measured at the controller (LCS meter) at project site.		
a) Measurement / Determination method (EB 70 Annex 3, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined.</i> <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> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /IM02/ /PDD/ /GEN/	<i>Description:</i> LCS meter (panel meters) measures the net electricity generation (Gross Export – Gross Import) by each WEG and doesn't provide individual reading of Export & Import . The value is monitored continuously and recorded daily by the online monitoring station at the site. In addition to the daily generation report and monthly generation report are also available at monitoring station. The parameter refers to the generation as recorded for the project WECs. <i>Verifier's action:</i> The gross generation values from the project WECs connected to the sub-station is available and has been checked for the monitoring period. <i>Conclusion:</i> The verification team concludes that the parameter has been monitored as per the procedure defined in the registered PDD	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		and applied methodology ACM0002, version 12.2.0 And no relevant key equipment has been changed/ replaced during the monitoring period		
b) Accuracy and QA/QC Procedure (EB 70 Annex 3, §§ 237-241) <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> <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>	/PDD/ /ISO/ /O&M/	<i>Description:</i> The WECs have integrated control panel which displays the generation from the individual WECs. Same generation data are stored in central monitoring system. Generation of individual WECs are directly monitored. All the controller connected to the WECs are self-correcting type. Hence calibration for the same is not required. Thus, QA/QC is in line with the revised monitoring plan. Further the QA/QC procedures are in line and the O&M contractor Enercon is ISO 9001 certified and has proper process for data management and control. <i>Verifier's action:</i> The calibration certificates are checked and found correct. ISO certificate for Enercon (India) Limited is available and is valid. <i>Conclusion:</i> Proper QA/QC procedures are in place.	OK	OK
c) Correctness (EB 70 Annex 3, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i>	/MR/ /GEN/ /PDD/	<input checked="" type="checkbox"/> Correct <input type="checkbox"/> Not correct (initial assessment) <i>Description:</i> LCS meter (panel meters) measures the net electricity generation (Gross Export – Gross Import) by eachWEG and doesn't provide individual reading of Export & Import . The value	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<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>is monitored continuously and recorded daily by the online monitoring station at the site. In addition to the daily generation report and monthly generation report are also available at monitoring station.</p> <p><i>Verifier's action:</i> The gross generation values from the project WECs and other WECs connected to the sub-station is available and has been checked for the monitoring period.</p> <p><i>Conclusion:</i> The verification team concludes that the values given in the monitoring report is correct and justified.</p>		
D.3. Sampling				
<p>a) Implementation of sampling plan (EB70 Annex 11; D3)</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><input checked="" type="checkbox"/> No sampling approach has been used by the PP to determine the monitored parameters</p> <p>OR.</p> <p><input type="checkbox"/> A sampling approach has been taken for the following monitored parameter:</p> <p>Parameter:</p> <p><i>Description:</i></p> <p><i>Verifier's action:</i></p> <p><i>Conclusion:</i></p>	NA	NA

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
b) Sampling during verification <i>In case the VT has applied a sampling approach in the course of the verification the approach shall be described for each parameter.</i>		<input checked="" type="checkbox"/> No sampling approach has been used by the VT to verify the monitored parameters OR. <input type="checkbox"/> A sampling approach has been applied by the VT for the following monitored parameter: Parameter: <i>Description:</i> <i>Conclusion:</i>	NA	NA
E. Calculation of Emission reductions				
E.1. Traceability (EB 70 Annex 3, §§ 212, 214) <i>Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spread-sheet shall be used. All applied formulae must be visible.</i>	/XLS/ /PDD/ /ACM0002/ /MR/	<i>Description:</i> The calculation of the emission reduction is traceable. An emission reduction calculation spread sheet is submitted by the project proponent along with the monitoring report. The formulae applied for the emission reduction calculation are clearly correct. <i>Verifier's action:</i> The registered PDD has been checked in order to ensure correctness the formulae applied for the calculation in the emission reduction sheet. The calculation is in line with the applied methodology, i.e. ACM0002. <i>Conclusion:</i> The emission reduction calculations are traceable.	OK	OK
E.2. Parameter consistency	/XLS/	<i>Description:</i>		OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p>(EB 70 Annex 3, § 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 all parameters in the PDD, MR, calculation spreadsheet.</i></p>	<p>/MR/ /GETCO/ /INV/</p>	<p>All the internal and external parameters and data used for the calculation are verified by the verification team. All the values are found to be considered correctly. The data between the monitoring report and the emission reduction calculation sheet are also assessed.</p> <p>However the emission reduction values in the MR are not consistent with the emission reduction sheet. Thus CAR E 1 is raised.</p> <p><i>Verifier's action:</i></p> <p>The registered PDD, monitoring report, emission reduction calculation spread sheet are checked by the verification team with the values in the JMR, Share certificates and invoices to confirm the same.</p> <p><i>Conclusion:</i> The parameters are reported consistently, however CAR E1 is pending</p>	<p>CAR E1</p>	<p>CAR E1 closed</p>
<p>E.3. Correctness of calculation (EB 70 Annex 3, §§ 235-236)</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>/XLS/ /MR/ /PDD/ /ACM0002/</p>	<p><i>Description:</i></p> <p>All the emission reduction values are calculated in line with the formulae from ACM0002 and the registered PDD. Further as the project is wind power project thus there are no project and leakage emissions.</p> <p><i>Verifier's action:</i></p> <p>The registered PDD, monitoring report, emission reduction calculation spread sheet are checked by the verification team to confirm the applied formulae and methods.</p>	<p>OK</p>	<p>OK</p>


Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
Check especially that no standard or old values have been used for calculation where calculations based on up-to-date data is required.		Conclusion: The calculation for emission reduction estimation is correct and in line with the registered PDD. .		
E.4. Emission reductions table (EB 70, Annex 11, E.4) Check if the MR includes a summary table of the emission reductions calculation specifying separately <ul style="list-style-type: none"> - Total baseline emissions - Total project emissions: - Total leakage - Total emission reductions. Assess whether the values are correct or need to be revised as a consequence of issues identified above.		<input checked="" type="checkbox"/> The MR includes in section E.4 a summary table of the emission reductions calculation. <input checked="" type="checkbox"/> The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately. <input checked="" type="checkbox"/> The values as specified in the ER summary table are correct; no issues have been identified during the verification which requires changes in the ER calculation. <input 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. In this context the following additional findings have been identified: NA	OK	OK
E.5. Comparison with ex-ante determined emission reductions (EB 70, Annex 11, E.5; E.6) Check if the MR includes a comparison of actual values of the monitoring period with the estimations in	/XLS/ /MR/ /PDD/	Description: The MR includes the comparison of values of the monitoring period with the estimations in the registered PDD. The emission reductions during the current monitoring period are lower than the PDD estimates.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<p><i>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 and – if this is case – whether the PRC have been considered appropriately.</i></p>		<p><i>Verifier's action:</i> The values in the MR have been compared with registered PDD and the emission reductions in the current monitoring period are lower than the PDD estimates.</p> <p><i>Conclusion:</i> The comparison with ex ante determined values have been provided and the emission reduction values are lower than the PDD estimates.</p>		
<p>E.6. ER during the 1st commitment period and the period from 1 January 2013 onwards (EB 70, Annex 11, E.7)</p> <p><i>Check if the MR includes in chapter E.7 a breakdown of the actual ER into</i></p> <p><i>a) ER up to 2012-12-31 and</i></p> <p><i>b) 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>		<p><input checked="" type="checkbox"/> The MR in section E.7 includes a summary table of the ER breakdown</p> <p><i>a) ER up to 2012-12-31 and</i></p> <p><i>b) ER from 2013-01-01 onwards</i></p> <p><input checked="" type="checkbox"/> The breakdown of the ERs during the first commitment period and from 2013-01-01 onwards is as follows:</p> <p><input 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 checked="" type="checkbox"/> The ERs have partly been generated during the first commitment period and partly from 2013-01-01 onwards.</p> <p><input checked="" type="checkbox"/> The breakdown of the ERs is correct, considering the applicable guidance.</p> <p>In this context the following additional findings have been</p>	OK	OK



Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		identified: N/A		

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. Jimmy Sah

SCHEME	STATUS	VALID UNTIL
CDM	Lead Assessor	2014-02-03
Validation, Verification		
VCS	Lead Assessor	2014-02-03


Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies

091 – Rev. 1, Date: 2011-07-27

091_S01-F003_2011-07-27_rev1

S01-F003 rev0 / 2010-04-19



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

089_S01-F003_2012-06-18_rev1.doc

S01-F003 rev2 / 2012-04-05



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

Mr. Samir Beqqal

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2016-04-15
VCS / ISO 14064-2	Senior Assessor	2016-04-15

110 - Rev. 2, Date: 2013-04-16

110_S01-VAB0-F20_2013-04-16_rev.2iss.doc

S01-VAB0-F20 rev3 / 2012-10-25



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

Mr. Kunal Rami

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2016-02-27
VCS / ISO 14064-2	Senior Assessor Technical Reviewer	2016-02-27

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
6.1	Construction	
13.1	Waste Handling and Disposal	13.1.1 Waste Management 13.1.2 Waste-Water Management

224 – Rev. 4, Date: 2013-02-28

224_S01-VAB0-F20_2013-02-28_rev4.doc

S01-VAB0-F20 rev3 / 2012-10-25