



# VERIFICATION/CERTIFICATION REPORT

**Final**

“Enercon Wind Farm (Hindustan) Ltd in Rajasthan”  
in  
India

Monitoring period: 01/09/2013 to 31/01/2015

Report N° 2015-IQ-16-MD

Revision N° 1.1 Aa

## VERIFICATION/CERTIFICATION REPORT

|                                                                                                                                                                                        |                                                                            |                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Project Title:</b><br>Enercon Wind Farm (Hindustan) Ltd in Rajasthan                                                                                                                | <b>Country:</b><br>India                                                   | <b>Estimated CERs (tCO<sub>2e</sub>):</b><br>101,047 tCO <sub>2e</sub> annual average |
| <b>CDM Registration Reference N°:</b><br>1168                                                                                                                                          | <b>Monitoring period:</b><br>01/09/2013 to 31/01/2015 (both days included) | <b>Certified CERs (tCO<sub>2e</sub>):</b><br>89,017 tCO <sub>2e</sub>                 |
| <b>Client:</b><br>Wind World (India) Limited                                                                                                                                           | <b>Client contact:</b><br>Mr. Puneet Katyal                                |                                                                                       |
| <b>Report No.:</b><br>2015-IQ-16-MD                                                                                                                                                    | <b>Revision:</b><br>1.1 Aa                                                 | <b>Date of this report:</b><br>23/04/2015                                             |
| <b>Approved by (Final Report – Authorized officer signing for the DOE):</b><br><br><br>Laura Severino |                                                                            | <b>Date of approval:</b><br>24/04/2015                                                |

### Methodology

|                           |                                     |                                                                                                                     |                       |                     |
|---------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------|
| <b>Number:</b><br>ACM0002 | <b>Version:</b><br>06 of 19/05/2006 | <b>Title:</b><br>Consolidated baseline methodology for grid-connected electricity generation from renewable sources | <b>Scale</b><br>Large | <b>SS(s):</b><br>01 |
|---------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------|

RINA Services S.p.A. (RINA), commissioned by Wind World (India) Limited, has verified of the greenhouse gas emission reductions reported for the project activity “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” in India, CDM Registration Reference N° 1168, for the period 01/09/2013 to 31/01/2015, with regard to the relevant requirements for CDM activities. The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable CDM requirements in order to be certified.

The project was validated by SGS (validation report N° CDM.VAL0805, revision no. 04 issued on 19/02/2010) and it was registered on 15/03/2010 under the CDM registration reference N° 1168. The validation opinion post registration change was done by BVC (report no. INDIA-PRC/618.49/2012, revision 01 issued on 19/12/2013).

The GHG emission reductions were calculated on the basis of the approved methodology ACM0002, version 06, ‘Consolidated baseline methodology for grid-connected electricity generation from renewable sources’ of 19/05/2006 and the monitoring plan included in the registered Project Design Document (revised), version 12 of 14/11/2013.

In conclusion, it is RINA's opinion that the project activity “Enercon Wind Farm (Hindustan) Ltd in Rajasthan”, in “India”, as described in the Monitoring Report version 2 of 16/04/2015, meets all relevant requirements for CDM activities and all relevant host Party criteria and correctly applies the baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 06 of 19/05/2006. Hence RINA is able to certify that the emission reductions from the project during the monitoring period 01/09/2013 to 31/01/2015 amount to 89,017 tCO<sub>2e</sub>.

#### Work carried out by:

Champok Buragohain



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Strictly confidential



Unrestricted distribution

#### Work verified by (Final Report)

Rita Valoroso



#### Keywords:

Climate Change, Kyoto Protocol, Clean Development Mechanism, Verification

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## Abbreviations

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| BE                | Baseline Emissions                                                    |
| CAR               | Corrective Action Request                                             |
| CDM               | Clean Development Mechanism                                           |
| CDM M&P           | Modalities and Procedures CDM                                         |
| CER(s)            | Certified Emission Reduction(s)                                       |
| CH <sub>4</sub>   | Methane                                                               |
| CL                | Clarification Request                                                 |
| CO <sub>2</sub>   | Carbon dioxide                                                        |
| CO <sub>2</sub> e | Carbon dioxide equivalent                                             |
| CRT               | Coordination and Technical Control Staff                              |
| DCI               | Certification Division of RINA Services Spa                           |
| DNA               | Designated National Authority                                         |
| DOE               | Designated Operational Entity                                         |
| EB                | Executive Board                                                       |
| ER                | Emission Reductions                                                   |
| FAR               | Forward Action Request                                                |
| GHG(s)            | Greenhouse gas(es)                                                    |
| GWP               | Global Warming Potential                                              |
| IPCC              | Intergovernmental Panel on Climate Change                             |
| LoA               | Letter of Approval                                                    |
| MoV               | Means of Verification                                                 |
| MR                | Monitoring Report                                                     |
| NABL              | National Accreditation Board for Testing and Calibration Laboratories |
| NGO               | Non-governmental Organization                                         |
| ODA               | Official Development Assistance                                       |
| PDD               | Project Design Document                                               |
| PE                | Project Emission                                                      |
| PP(s)             | Project Participant(s)                                                |
| Ref.              | Document Reference                                                    |
| RINA              | RINA Services Spa                                                     |
| RRVPL             | Rajasthan Rajya Vidyut Prasaran Nigam Limited                         |
| SS(s)             | Sectoral Scope(s)                                                     |
| TA(s)             | Technical Area(s)                                                     |
| UNFCCC            | United Nations Framework Convention on Climate Change                 |
| VVS               | Validation and Verification Standard                                  |

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# VERIFICATION/CERTIFICATION REPORT

## 1 INTRODUCTION

Wind World (India) Limited has commissioned RINA to carry out the verification and certification of emission reductions reported for the registered “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” project in India, CDM Registration Reference N° 1168, for the period 01/09/2013 to 31/01/2015.

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

### 1.1 Objective

The objective of the verification is to have an independent review ex post determination by a Designated Operational Entity (DOE) of the monitored reductions in GHG emissions that have occurred as a result of the registered CDM project activity during a defined monitoring period. Certification is the written assurance by the DOE that, during a specific time period, a proposed CDM project activity achieved the reductions in anthropogenic emissions by sources of GHGs as verified.

### 1.2 Scope

The verification scope is:

- to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- to verify that reported GHG emission data is sufficiently supported by evidence.

Verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable UNFCCC criteria for CDM in order to be certified.

UNFCCC criteria for CDM refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board.

Verification is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring.

## 2 METHODOLOGY

Verification was conducted using RINA procedures in line with the requirements specified in the CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques.

The verification consisted of the following three phases:

- Desk review;
- On-site assessment;
- The resolution of outstanding issues and the issuance of the final verification report and certification.

The following sections outline each step in more detail.

### 2.1 Desk Review

The monitoring report, version 02 of 16/04/2015 and version 01 of 20/02/2015 /01/, the emission reduction calculations provided in the form of a spreadsheet (ER sheet\_20 feb 2015.xls) version 01 of

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20/02/2015 and version 02 (ER sheet\_09 Apr 2015.xls) of 09/04/2015 /02/, was assessed as part of the verification. In addition the Project Design Document (PDD) /03/ in particular the baseline estimations and the monitoring plan, the last verification (5<sup>th</sup> verification) report (BVC/INDIA-VR 5/618.49/2013) revision 01 of 19/12/2013 /04/ and the validation report (CDM.VAL0805), revision no. 04 issued on 19/02/2010 and validation opinion on post registration changes (INDIA-PRC/618.49/2012) version 01 issued on 19/12/2013 /05/ for the project were reviewed.

The monitoring report version 01 of 20/02/2015 /01/ was made publicly available on the CDM UNFCCC website on 20/02/2015.

The following table lists the documentation that was reviewed during the verification.

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /01/ | Wind World (India) Limited: Monitoring report for project activity “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” in India, version 01 of 20/02/2015 and version 02 of 16/04/2015 related to the monitoring period 01/09/2013 to 31/01/2015                                                                                                                                                                                                                                                                                                                                         |
| /02/ | Wind World (India) Limited: Emission reduction worksheet (ER sheet_20 feb 2015.xls) version 01 of 20/02/2015 and version 02 of 09/04/2015                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| /03/ | Wind World (India) Limited: CDM-PDD for project activity “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” in India, version 12 of 14/11/2013                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| /04/ | BVC: 5 <sup>th</sup> Verification/Certification report (BVC/INDIA-VR 5/618.49/2013) for the project activity “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” in India, version 01 of 19/12/2013                                                                                                                                                                                                                                                                                                                                                                                      |
| /05/ | SGS: CDM validation report of “Enercon Wind Farm (Hindustan) Ltd in Rajasthan”, SGS reference: CDM.VAL0805, version 04 of 19/02/2010<br>BVC: Validation opinion on post registration changes (report no. INDIA-PRC/618.49/2012) version 01 issued on 19/12/2013                                                                                                                                                                                                                                                                                                                       |
| /06/ | UNFCCC website Project 1168: Enercon Wind Farm (Hindustan) Ltd in Rajasthan, <a href="https://cdm.unfccc.int/Projects/DB/SGS-UKL1181742063.57/view">https://cdm.unfccc.int/Projects/DB/SGS-UKL1181742063.57/view</a> , in English language, retrieved on 24/03/2015<br>Monitoring Report published linkage on UNFCCC website Project 1168, <a href="https://cdm.unfccc.int/Projects/DB/SGS-UKL1181742063.57/iProcess/RINA1424428265.49/view">https://cdm.unfccc.int/Projects/DB/SGS-UKL1181742063.57/iProcess/RINA1424428265.49/view</a> in English language, retrieved on 24/03/2015 |
| /07/ | CDM Executive Board: Monitoring Report Form (F-CDM-MR), version 04.0 of 25/06/2014 and version 05 of 01/04/2015 and Instructions for filling out the monitoring report form, version 04.0 of 25/06/2014                                                                                                                                                                                                                                                                                                                                                                               |
| /08/ | CDM Executive Board: Clean Development Mechanism Project Cycle Procedure, version 07.0 of 01/06/2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| /09/ | CDM Executive Board: Clean Development Mechanism Project Standard, version 07.0 of 01/06/2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| /10/ | CDM Executive Board: Clean Development Mechanism validation and verification standard, version 07.0 of 01/06/2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| /11/ | CDM Executive Board: Baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 06 of 19/05/2006                                                                                                                                                                                                                                                                                                                                                                                    |
| /12/ | Joint Energy Meter Reading (monthly generation records) at main/bulk HT meter of RVPNL connected with 220 KV GSS BHU and main metering at 400 KV GSS AKAL from the month of September 2013 to January 2015                                                                                                                                                                                                                                                                                                                                                                            |
| /13/ | Monthly invoices raised by Enercon Wind Farms (Hindustan) Pvt. Ltd. to Ajmer DISCOM for net electricity export to grid for the period September 2013 to January 2015.                                                                                                                                                                                                                                                                                                                                                                                                                 |
| /14/ | C&I Calibrations Pvt. Ltd.: Calibration certificate (No. C&I/CAL/S/13-12/044) issued to M/s Wind World Energy Limited for energy meter Sr. No. 11068579 dated 26/12/2013 with validity until 26/12/2014 and certificate (No. C&I/CAL/S/15-02/093) dated 14/02/2015 with validity until 14/02/2016                                                                                                                                                                                                                                                                                     |
| /15/ | C&I Calibrations Pvt. Ltd.: Calibration certificate (No. C&I/CAL/S/13-12/045) issued to M/s Wind World Energy Limited for energy meter Sr. No. 11068580 dated 26/12/2013 with validity                                                                                                                                                                                                                                                                                                                                                                                                |

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|      |                                                                                                                                                                                                                                                                                                     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | until 26/12/2014 and certificate (No. C&IJ/CAL/S/15-02/094) dated 14/02/2015 with validity until 14/02/2016                                                                                                                                                                                         |
| /16/ | C&I Calibrations Pvt. Ltd.: Calibration certificate (No. C&IJ/CAL/S/13-12/081) issued to M/s Wind World Energy Limited for energy meter Sr. No. RJB00050 dated 28/12/2013 with validity until 28/12/2014 and certificate (No. C&IJ/CAL/S/15-02/066) dated 11/02/2015 with validity until 11/02/2016 |

### 2.2 On-site assessment

On 19/03/2015, RINA, visited project site across Kita and Pithodai Ki Dhani village of Jaisalmer District of Rajasthan state in India. During the on-site assessment of the project RINA assessed the implementation and operation of the proposed project activity, reviewed the information flows for generating, aggregating and reporting the monitoring parameters, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant, checked the monitoring equipment including calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions, checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters. There was no hindrance to access the data parameters, monitoring equipments during the site visit

The key personnel interviewed and the main topics of the interviews are summarized in the table below.

|     | Date       | Name and Role                         | Organization                                       | Topic                                                                                                                                                                                                                                                                                 |
|-----|------------|---------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /a/ | 19/03/2015 | Poorvi Joshi Shenoy<br>(Ast. Manager) | Representative of<br>Wind World (India)<br>Limited | Project description, implementation status of the project, Monitoring plan and ER calculations                                                                                                                                                                                        |
| /b/ | 19/03/2015 | Jeetendra Kumar<br>(Site-Supervisor)  | Wind World (India)<br>Limited                      | Metering equipment accuracy /calibration performance-frequency (project boundaries-processes and equipments involved-possible leakages). Monitoring practices (against the requirements of the PDD and the selected methodology)                                                      |
| /c/ | 19/03/2015 | Shashank Sor<br>(Engineer-Sunstation) | Wind World (India)<br>Limited                      | Cross-check between information provided in the monitoring report and data from other sources such as JMR , invoice and payment receipts.<br><br>Operating staff competence and the risks for inappropriate operation and data collection procedures of the project (training needs). |

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### 2.3 Resolution of outstanding issues

The objective of this phase of the verification is to resolve any outstanding issues which need to be clarified for RINA's positive conclusion on the monitoring report and emission reductions.

To guarantee transparency a verification protocol has been customized for the project. The protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria.

The verification protocol consists of three tables; the different columns in these tables are described in the figure below (see Figure 1). The completed verification protocol is enclosed in Appendix A to this report.

A corrective action request (CAR) is raised if one of the following occurs:

- 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 that will impair the estimate of emission reductions;
- Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

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

A forward action request (FAR) is raised during verification for actions if the monitoring and reporting require attention and/or adjustment for the next monitoring period.

CARs, CLs and FARs identified are included in the verification protocol in Appendix A of this report.

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Figure 1 Verification protocol tables

| Verification Protocol, Table 1 - Requirement checklist |                                                                                           |                                                                                                                                                                                                                                                        |                                                                                                                         |                                                                                                                                                                 |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Checklist Question                                     | Ref.                                                                                      | MoV                                                                                                                                                                                                                                                    | Comments                                                                                                                | Conclusion                                                                                                                                                      |
| The checklist is organized in four different sections. | Makes reference to documents where the answer to the checklist question or item is found. | Explain how conformance with the checklist question is investigated. Examples are document review (DR), interview or any other follow-up actions (I), cross checking (CC) with available information relating to projects, (N/A) means not applicable. | The discussion on how the conclusion is arrived at and the conclusion on the compliance with checklist question so far. | For CAR, CL and FAR see the definitions above. OK is used if the information and evidence provided is adequate to demonstrate compliance with CDM requirements. |

| Verification Protocol, Table 2 - Resolution of Corrective Action Requests and Clarification |                                                                                         |                                                                                 |                                                                                 |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Corrective action requests and/or clarification requests                                    | Reference to Table 1                                                                    | Response by project participants                                                | Verification conclusion                                                         |
| The CAR and/or CLs raised in table 1 are repeated here.                                     | Reference to the checklist question number in Table 1 where the CAR or CL is explained. | The responses given by the project participants to address the CARs and/or CLs. | The verification team's assessment and final conclusion of the CARs and/or CLs. |

| Verification Protocol, Table 3 - Forward Action Requests (if no FAR table 3 is deleted) |                                                                                   |                                                                                       |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Forward action request                                                                  | Reference to Table 1                                                              | Response by project participants<br>Verification conclusion                           |
| The FAR raised in table 1 is repeated here.                                             | Reference to the checklist question number in Table 1 where the FAR is explained. | Response by the project participants on how forward action request will be addressed. |

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### 2.4 Internal quality control

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent RINA instructions.

The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme for CDM validation and verification.

### 2.5 Verification team and the technical reviewer(s)

The verification team and the independent technical reviewer team have the collective competence necessary to perform the verification.

The verification team fulfills the following requirements:

- qualification for all technical area/s (TAs) related to the activity;
- technical experts who provides specific technical, methodological and sectoral knowledge and/or expertise and qualification for TAs can be involved;
- it includes one Team Leader that takes the responsibility to lead the team;
- it includes a Verifier;
- at least one member who performs the on-site visit is qualified for all TAs related to the activity;
- at least one member who performs the on-site visit is qualified as Team Leader, even if he/she does not cover this role for the specific activity;
- the same person can cover more than one roles.

The independent technical reviewer team fulfills the following requirements:

- qualification for the CDM scheme and attendance to specific training related to the independent technical reviewer activity;
- qualification for all technical area/s (TAs) related to the activity in case of Final Report;

The verification team members and the technical reviewers consist of the following personnel (refer to the relevant attachments to see the pertinent qualification certificates):

| Role                                              | Last Name  | First Name | Site Visit (Yes/No) | Country |
|---------------------------------------------------|------------|------------|---------------------|---------|
| Team Leader, Verifier and Technical Expert TA 1.2 | Buragohain | Champok    | Yes                 | India   |
| Technical Reviewer                                | Valoroso   | Rita       | No                  | Italy   |

## 3 VERIFICATION FINDINGS

The findings of the verification related to the monitoring period from 01/09/2013 to 31/01/2015 as documented and described in the monitoring report version 01 of 20/02/2015 and version 02 of 16/04/2015 /01/ are stated in the following sections.

The verification requirements, the means of verification and the results from verifying the identified criteria are documented in more detail in the verification protocol in Appendix A.

### 3.1 Description of the project activity

The main information of the project is summarized in the table below.

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|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                               |      |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|
| Project Participant(s)                | Wind World (India) Limited (Previously Enercon (India) Limited)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                               |      |
| Project Title                         | Enercon Wind Farm (Hindustan) Ltd in Rajasthan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                               |      |
| Location of the project               | Jaisalmer district, Gujarat, India.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                               |      |
| Methodology(ies)                      | "ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 06 of 19/05/2006 /11/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                               |      |
| Sectoral Scope(s)                     | 01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RINA's Technical Area(s)      | 1.2  |
| Registered PDD                        | Revision 12 of 14/11/2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                               |      |
| Date of registration                  | 15/03/2010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CDM Registration Reference N° | 1168 |
| Starting date of the crediting period | 15/03/2010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |      |
| Project's crediting period            | 15/03/2010 to 14/03/2020 (Fixed)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |      |
| Monitoring period                     | 01/09/2013 to 31/01/2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |      |
| Project documentation link            | <a href="https://cdm.unfccc.int/Projects/DB/SGS-UKL1181742063.57/view">https://cdm.unfccc.int/Projects/DB/SGS-UKL1181742063.57/view</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                               |      |
| Purpose of the project activity       | <p>The project activity consists of 75 WECs (800 kW each) of Enercon make E-48 totaling to a capacity of 60 MW, in Jaisalmer, Rajasthan state of India connected to NEWNE grid of India. The Project will lead to reduced greenhouse gas emissions displacing equivalent electricity from fossil fuel based electricity generating plants in grid.</p> <p>The main purpose of the project activity is to generate electrical energy through sustainable means using wind power resources, to utilize the generated output for selling it to the state electricity utility and to contribute to climate change mitigation efforts.</p> |                               |      |

### 3.2 Remaining issues (FARs) from previous validation or verification

Based on the review of validation report and previous verification report, no FAR was raised during last 5<sup>th</sup> periodic verification or there were no FARs to be addressed during this verification /04/.

### 3.3 Monitoring Report

The Monitoring Report for the project activity "Enercon Wind Farm (Hindustan) Ltd in Rajasthan", in "India", version 01 of 20/02/2015 and version 02 of 16/04/2015 submitted by the Wind World (India) Limited have been the basis for the verification process.

RINA confirms that the above MR is based on the currently valid MR template /07/ and is completed in accordance with the applicable guidance document/07/.

The main changes between the MR version 01 of 20/02/2015 published in the UNFCCC website on 20/02/2015 and the MR version 02 of 16/04/2015 submitted for registration are the following:

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| Section of the MR       | Description and reason for changing the information in that section                    |
|-------------------------|----------------------------------------------------------------------------------------|
| Throughout the document | The ER value is corrected from 89,029 to 89,017 in the final MR.                       |
| Section C               | Calibration details of energy meters are transparently explained in the final MR.      |
| Throughout the MR       | The template of the MR is updated to its latest template (version 05) in the final MR. |

### 3.4 Project implementation

#### Actual implementation of the registered project activity

RINA has performed a site visit to verify the real implementation of the project against the description in its registered CDM PDD /03/ and found that the project implementation is in accordance with the registered PDD /03/. The project activity consists of 75 WECs (800 kW each) of Enercon make E-48 at Jaisalmer district of Rajasthan, India, totaling to a capacity of 60 MW. The generated electricity is evacuated to RRVPNL grid sub-station. The first WEC was commissioned on 26/11/2006 and the last WEC was commissioned on 25/12/2006 as confirmed from the last verification report /04/. The same was also cross checked during the site visit and confirmed to be in order.

The quantum of energy exported to the grid and imported from the grid is confirmed from the Join meter reading reports issued to the PP /12/; this is in line with the registered PDD /03/.

During the site visit, no changes have been observed or identified which may impact the additionality as there was no change in the installed capacity, no addition of component nor extension of technology, no addition nor removal of project sites; no change has been observed or identified that may impact the scale of the project activity or applicability of baseline and monitoring methodology ACM0002, version 06 /11/. The net electricity generation by the project plant from 01/09/2013 to 31/01/2015, was taken into consideration.

#### Post registration changes:

Post registration changes related to change in monitoring plan was accepted by EB for the revised PDD version 12 of 14/11/2013. There is no post registration changes involved during this monitoring period.

### 3.5 Methodology for determining Emission Reductions.

According to the applied methodology "ACM0002", " Consolidated baseline methodology for grid-connected electricity generation from renewable sources /11/, the emission reductions have been calculated based on the following formula:

$$ER_y = BE_y - PE_y - LE_y$$

Where,

ER<sub>y</sub> is the total emission reductions of the project activity during the year y;

BE<sub>y</sub> is the baseline emissions for the project activity during the year y;

PE<sub>y</sub> is the emissions for the project activity during the year y;

LE<sub>y</sub> is the leakage emissions for the project activity during the year y;

$$BE_y = EG_y * EF_y$$

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Where:

$BE_y$  Baseline Emission in year  $y$  ( $tCO_2$ )

$EG_y$  Quantity of net electricity supplied to grid as a result of the implementation of the Project

$EF_y$   $CO_2$  emission factor of the grid in year  $y$  ( $tCO_2/MWh$ )

Annual baseline emissions are calculated by multiplication of the annual quantity of net electricity supplied to the grid with the grid emission factor (as calculated above).

baseline emission factor ( $EF_y$ ) of the grid as a combined margin (CM), calculated as the weighted average of the operating margin (OM) and build margin (BM) factor. In case of wind power projects default weights of 0.75 for  $EF_{OM,y}$  and 0.25 for  $EF_{BM,y}$  are applicable as per ACM0002 /11/.

Project Emissions:

No project emission as per registered PDD /03/ and applied methodology /11/.

Hence,  $PE_y = 0$

Leakage emissions has to be considered only when energy generating equipment is transferred from another activity. Since the project activity employs a new set of equipment/11/, leakage emissions is neglected, which is as per the registered PDD /03/, /11/.

Hence:

$LE_y = 0$

Emission Reduction achieved is;

$$\begin{aligned} ER_y &= BE_y - PE_y - LE_y \\ &= (EG_y \times EF_y) - PE_y - LE_y \end{aligned}$$

### 3.5.1 Compliance of the monitoring plan with the monitoring methodology and applicable methodological tools

During this monitoring period, the validated and registered monitoring plan was found to be in accordance with the applied methodology, ACM0002 version 06 /11/. All monitoring parameters, monitoring and calibration procedures follow the methodology requirements. No recommendation was made during this verification.

### 3.5.2 Compliance of monitoring with monitoring plan

The following parameters have been monitored in accordance with the monitoring plan in the registered PDD /03/ and the monitoring report /01/.

## VERIFICATION/CERTIFICATION REPORT

### 3.5.2.1 Data and parameters fixed ex-ante or at renewal crediting period

| DATA/PARAMETER<br>Unit                                                                            | Source of data                                                                                                    | Reported value for the<br>project period                                                                                                                                                                  | Assessment/Observation                                                                                                                                                                                                           |                              |           |                              |           |                              |                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------|------------------------------|-----------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EF<sub>OM,y</sub></b> , Operating margin CO <sub>2</sub> emission factor of the grid in year y | As per registered PDD conforming to CO <sub>2</sub> Baseline Database for the Indian Power Sector, CEA /03/, /05/ | <table><tr><td>2002 – 03</td><td>0.9993 tCO<sub>2</sub>/MWh</td></tr><tr><td>2003 – 04</td><td>0.9869 tCO<sub>2</sub>/MWh</td></tr><tr><td>2004 – 05</td><td>0.9756 tCO<sub>2</sub>/MWh</td></tr></table> | 2002 – 03                                                                                                                                                                                                                        | 0.9993 tCO <sub>2</sub> /MWh | 2003 – 04 | 0.9869 tCO <sub>2</sub> /MWh | 2004 – 05 | 0.9756 tCO <sub>2</sub> /MWh | The value is ex-ante fixed for crediting period of 10 years as per the registered PDD /03/, which has been justified and validated by validation DOE /05/ to follow the applied methodology and tool and already approved by EB. |
| 2002 – 03                                                                                         | 0.9993 tCO <sub>2</sub> /MWh                                                                                      |                                                                                                                                                                                                           |                                                                                                                                                                                                                                  |                              |           |                              |           |                              |                                                                                                                                                                                                                                  |
| 2003 – 04                                                                                         | 0.9869 tCO <sub>2</sub> /MWh                                                                                      |                                                                                                                                                                                                           |                                                                                                                                                                                                                                  |                              |           |                              |           |                              |                                                                                                                                                                                                                                  |
| 2004 – 05                                                                                         | 0.9756 tCO <sub>2</sub> /MWh                                                                                      |                                                                                                                                                                                                           |                                                                                                                                                                                                                                  |                              |           |                              |           |                              |                                                                                                                                                                                                                                  |
| <b>EF<sub>BM,y</sub></b> , Build margin CO <sub>2</sub> emission factor of the grid in year y     | As per registered PDD conforming to CO <sub>2</sub> Baseline Database for the Indian Power Sector, CEA /03/, /05/ | 0.5335 tCO <sub>2</sub> /MWh                                                                                                                                                                              | The value is ex-ante fixed for crediting period of 10 years as per the registered PDD /03/, which has been justified and validated by validation DOE /05/ to follow the applied methodology and tool and already approved by EB. |                              |           |                              |           |                              |                                                                                                                                                                                                                                  |
| <b>EF<sub>CM,y</sub></b> , CO <sub>2</sub> emission factor of the grid in year y                  | As per registered PDD conforming to CO <sub>2</sub> Baseline Database for the Indian Power Sector, CEA /03/, /05/ | 0.87387 tCO <sub>2</sub> /MWh                                                                                                                                                                             | The value is ex-ante fixed for crediting period of 10 years as per the registered PDD /03/, which has been justified and validated by validation DOE /05/ to follow the applied methodology and tool and already approved by EB. |                              |           |                              |           |                              |                                                                                                                                                                                                                                  |

## VERIFICATION/CERTIFICATION REPORT

### 3.5.2.2 Data and parameters monitored ex-post

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Unit                                                                                                  | EG <sub>y</sub> ; MWh                                                                                                                                                                                                                                                                                                                             |
| Description                                                                                                | Net electricity supplied to the grid by the project                                                                                                                                                                                                                                                                                               |
| Source of data to be used                                                                                  | Electricity supplied to the grid as per monthly breakup sheet prepared by Wind World (India) Limited and the same will cross verified by the tariff invoices raised on RRVPNL/Ajmer & Jaipur DISCOM (State Utility) /12/, /13/                                                                                                                    |
| Value of monitored parameter for the monitoring period                                                     | 101,879.229 MWh (Actual monitored value). Since there has been a delay in calibration, PP has applied error factor for the delayed duration and accordingly 101,866.091 MWh (adjusted value) has been used for emission reduction estimation.                                                                                                     |
| Monitoring equipment                                                                                       | The value is calculated, so there is no monitoring equipment.                                                                                                                                                                                                                                                                                     |
| Accuracy of the monitoring equipment                                                                       | Not applicable                                                                                                                                                                                                                                                                                                                                    |
| Measuring/Reading/Recording frequency                                                                      | Monthly recording.                                                                                                                                                                                                                                                                                                                                |
| Calculation method (if applicable)                                                                         | <p>Monthly joint meter reading records gross export ( <math>\sum_{project} E_{WEC, export}</math> ) and gross import ( <math>\sum_{project} E_{WEC, import}</math> ) from project WECs and accordingly the net electricity supplied by the project is calculated.</p> $(EG_y = \sum_{project} E_{WEC, export} - \sum_{project} E_{WEC, import} )$ |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                   |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Not applicable                                                                                                                                                                                                                                                                                                                                    |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | Not applicable                                                                                                                                                                                                                                                                                                                                    |
| Calibration certificates                                                                                   | Not applicable                                                                                                                                                                                                                                                                                                                                    |
| Does the calibration of meters have been done by an accredited person or institution?                      | Not applicable                                                                                                                                                                                                                                                                                                                                    |

## VERIFICATION/CERTIFICATION REPORT

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                       |            |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Data Unit                                                                                                  | E <sub>JMR,Export</sub> ; MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                       |            |
| Description                                                                                                | Gross Electricity exported (at substation point), as recorded by the main meter & backup meter at the Akal substation. This data represents the total gross electricity exported by all the WECs (project and non-project) at substation point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                       |            |
| Source of data to be used                                                                                  | Export value from Joint meter reading taken at Substation in the presence of representatives of WWIL and state utility /12/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                       |            |
| Value of monitored parameter for the monitoring period                                                     | 754,063.530 MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                       |            |
| Monitoring equipment                                                                                       | A common (Main and check) meter is installed at the sub-station as per below details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                       |            |
|                                                                                                            | Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Make                                                                                                                                                                                  | Serial No. |
|                                                                                                            | Main Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | L&T                                                                                                                                                                                   | 11068579   |
|                                                                                                            | Check Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | L&T                                                                                                                                                                                   | 11068580   |
| Accuracy of the monitoring equipment                                                                       | Both the meters are of accuracy class 0.2S as confirmed during site visit and from calibration certificates /14/, /15/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                       |            |
| Measuring/Reading/Recording frequency                                                                      | Measured continuously and recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                       |            |
| Calcualtion method (if applicable)                                                                         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                       |            |
| Calibration                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                       |            |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Both the energy meter is calibrated once in a year. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                       |            |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | The monitoring period is from 01/09/2013 to 31/01/2015. Both the main meter and check meter was calibrated on 26/12/2012 (with validity until 26/12/2013) /04/, on 26/12/2013 (with validity until 26/12/2014) and on 14/02/2015 (with validity until 14/02/2016) /14/, /15/. There has been a delay in last calibration and to cover that PP has applied maximum error of the instrument to the measured values taken during the period (December 2014 and January 2015) between the scheduled date of calibration and the actual date of calibration (resulted error shows smaller than maximum permissible error). Hence, the calibration of energy meter covers the monitoring period. The calibration frequency of all the meters were checked with the previous calibrations records and found that the calibration frequency has been respected. |                                                                                                                                                                                       |            |
| Calibration certificates                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                       |            |
|                                                                                                            | Meter no.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Calibration details                                                                                                                                                                   |            |
|                                                                                                            | 11068579 (main meter)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | a) Calibration certificate as per last verification report dated 26/12/2012 /04/.<br>b) Calibration certificate by C&I Calibrations Pvt. Ltd dated 26/12/2013 and on 14/02/2015 /14/. |            |
|                                                                                                            | 11068580 (check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | a) Calibration certificate as per last verification report dated 26/12/2012 /04/.                                                                                                     |            |

## VERIFICATION/CERTIFICATION REPORT

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|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                     | meter)                                                                    | b) Calibration certificate by C&I Calibrations Pvt. Ltd dated 26/12/2013 and on 14/02/2015 <b>/15/</b> . |
| Does the calibration of meters have be done by an accredited person or institution? | Yes. C&I Calibrations Pvt. Ltd. is accredited by NABL <b>/14/, /15/</b> . |                                                                                                          |

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| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                       |            |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Data Unit                                                                                                  | E <sub>JMR,Import</sub> ; MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                       |            |
| Description                                                                                                | Gross Electricity imported (at substation point), as recorded by the main meter at the Akal Substation. This data represents the total gross electricity imported by all the WECs (project and non-project) at substation point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                       |            |
| Source of data to be used                                                                                  | Import value from Joint meter reading taken at Substation in the presence of representatives of WWIL and state utility /12/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                       |            |
| Value of monitored parameter for the monitoring period                                                     | 650.668 MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                       |            |
| Monitoring equipment                                                                                       | A common (Main and check) meter is installed at the sub-station as per below details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                       |            |
|                                                                                                            | Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Make                                                                                                                                                                                  | Serial No. |
|                                                                                                            | Main Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | L&T                                                                                                                                                                                   | 11068579   |
|                                                                                                            | Check Meter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | L&T                                                                                                                                                                                   | 11068580   |
| Accuracy of the monitoring equipment                                                                       | Both the meters are of accuracy class 0.2S as confirmed during site visit and from calibration certificates /14/, /15/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                       |            |
| Measuring/Reading/Recording frequency                                                                      | Measured continuously and recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                       |            |
| Calcualtion method (if applicable)                                                                         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                       |            |
| Calibration                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                       |            |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Both the energy meter is calibrated once in a year. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                       |            |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | The monitoring period is from 01/09/2013 to 31/01/2015. Both the main meter and check meter was calibrated on 26/12/2012 (with validity until 26/12/2013) /04/, on 26/12/2013 (with validity until 26/12/2014) and on 14/02/2015 (with validity until 14/02/2016) /14/, /15/. There has been a delay in last calibration and to cover that PP has applied maximum error of the instrument to the measured values taken during the period (December 2014 and January 2015) between the scheduled date of calibration and the actual date of calibration (resulted error shows smaller than maximum permissible error). Hence, the calibration of energy meter covers the monitoring period. The calibration frequency of all the meters were checked with the previous calibrations records and found that the calibration frequency has been respected. |                                                                                                                                                                                       |            |
| Calibration certificates                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                       |            |
|                                                                                                            | Meter no.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Calibration details                                                                                                                                                                   |            |
|                                                                                                            | 11068579 (main meter)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | a) Calibration certificate as per last verification report dated 26/12/2012 /04/.<br>b) Calibration certificate by C&I Calibrations Pvt. Ltd dated 26/12/2013 and on 14/02/2015 /14/. |            |
|                                                                                                            | 11068580 (check                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | a) Calibration certificate as per last verification report dated 26/12/2012 /04/.                                                                                                     |            |

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|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                     | meter)                                                                    | b) Calibration certificate by C&I Calibrations Pvt. Ltd dated 26/12/2013 and on 14/02/2015 <b>/15/</b> . |
| Does the calibration of meters have be done by an accredited person or institution? | Yes. C&I Calibrations Pvt. Ltd. is accredited by NABL <b>/14/, /15/</b> . |                                                                                                          |

## VERIFICATION/CERTIFICATION REPORT

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Unit                                                                                                  | $E_{\text{Controller, Export, } i}$ MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Description                                                                                                | <p>Gross Electricity export (at WEC point at the site) by a WEC (project or non-project), as measured at the LCS meter. Each WEC has exclusive LCS meter that records gross electricity export from the WEC (project or non-project). This represents gross electricity export by individual WEC (at WEC point at the site)</p> <p>where <math>i</math> is any WEC between 1 to <math>j+k</math></p> <p><math>j</math> is any WEC between 1 to 75 of the project activity connected to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.</p> <p><math>k</math> is any WEC between 76 to 290 of the non-project connected to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.</p> |
| Source of data to be used                                                                                  | This 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 the LCS meters of all WECs is retrieved) at the project site /02/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Value of monitored parameter for the monitoring period                                                     | 106,521.247 MWh (Total project WEC generation during the monitoring period). This value is not used in the ER calculation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Monitoring equipment                                                                                       | LCS inbuilt meter in each WEC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Accuracy of the monitoring equipment                                                                       | LCS meter in WEC is inbuilt and does not require calibration. No accuracy is specified. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Measuring/Reading/Recording frequency                                                                      | Measured continuously and recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Calculation method (if applicable)                                                                         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Not applicable. LCS meter in WEC is inbuilt and does not require calibration. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Calibration certificates                                                                                   | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Does the calibration of meters have to be done by an accredited person or institution?                     | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## VERIFICATION/CERTIFICATION REPORT

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Unit                                                                                                  | $\Sigma E_{\text{Controller, Export}, i}$ MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Description                                                                                                | <p>Summation of gross electricity exported (at WEC point at the site) by all the WECs (project and non-project) connected to the main meter at the substation, measured at the LCS meter of each WEC. This is summation of gross electricity exported by the WECs (at WEC point at the site) including WECs of the project and non-project.</p> <p>where <math>i</math> is any WEC between 1 to <math>j+k</math></p> <p><math>j</math> is any WEC between 1 to 75 of the project activity connected to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.</p> <p><math>k</math> is any WEC between 76 to 290 of the non-project connected to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.</p> |
| Source of data to be used                                                                                  | This 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 the LCS meters of all WECs is retrieved) at the project site /02/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Value of monitored parameter for the monitoring period                                                     | 788,162.877 MWh (Total project and non-project WEC generation during the monitoring period) /02/. This value is not used in the ER calculation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Monitoring equipment                                                                                       | LCS inbuilt meter in each WEC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Accuracy of the monitoring equipment                                                                       | LCS meter in WEC is inbuilt and does not require calibration. No accuracy is specified. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Measuring/Reading/Recording frequency                                                                      | Measured continuously and recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Calculation method (if applicable)                                                                         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Not applicable. LCS meter in WEC is inbuilt and does not require calibration. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Calibration certificates                                                                                   | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Does the calibration of meters have to be done by an accredited person or institution?                     | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Unit                                                                                                  | $E_{WEC,Export,j}$ ; MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Description                                                                                                | Gross Electricity exported (at substation point) by an individual WEC (j of the project activity) to the grid that is connected to main meter & backup meter at Akal substation.<br>Where j is any WEC between 1 to 75 of the project activity connected to main meter & backup meter at Akal substation and secondary backup meter at Bhu substation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Source of data to be used                                                                                  | Calculated as per procedure in registered PDD /03/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Value of monitored parameter for the monitoring period                                                     | 101,967.810 MWh (Total project WEC generation during the monitoring period) /02/. This value is not used in the ER calculation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Monitoring equipment                                                                                       | Not Applicable since the parameter is calculated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Accuracy of the monitoring equipment                                                                       | Not Applicable since the parameter is calculated. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Measuring/Reading/Recording frequency                                                                      | Recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Calculation method (if applicable)                                                                         | <p>Calculated as described below:</p> <p>Summation of electricity generated by the project activity WECs recorded at respective LCS meters- <math>E_{Controller,Export}</math></p> <p>Joint meter reading for gross export electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR,Export}</math></p> <p>Joint meter reading for gross import electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR,Import}</math></p> <p>Gross electricity exported by project and non project WECs connected to the sub-station main meter as per LCS meter reading-</p> $\sum E_{Controller,Export}$ <p>Considering above, <math>E_{ExportMultificationFactor} = \frac{E_{JMR,Export}}{\sum E_{Controller,Export}}</math> is calculated and accordingly, <math>E_{WEC,Export} = E_{ExportMultificationFactor} * E_{controller,Export}</math></p> <p>The above calculation is done by O&amp; M provider and forms part of the JMR. The value is directly taken from monthly JMR readings /12/. The same is also cross checked from monthly invoice and found to be correct /13/.</p> |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Not applicable since the parameter is calculated. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## VERIFICATION/CERTIFICATION REPORT

|                                                                                       |                |
|---------------------------------------------------------------------------------------|----------------|
| Calibration certificates                                                              | Not applicable |
| Does the calibration of meters have been done by an accredited person or institution? | Not applicable |

## VERIFICATION/CERTIFICATION REPORT

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Unit                                                                                                  | $E_{WEC,Import,j}$ ; MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Description                                                                                                | Gross Electricity imported (at substation point) by an individual WEC of the project activity to the grid that is connected to main meter & backup meter at Akal substation.<br>Where j is any WEC between 1 to 75 of the project activity connected to main meter & backup meter at Akal substation and secondary backup meter at Bhu substation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Source of data to be used                                                                                  | Calculated as per procedure in registered PDD /03/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Value of monitored parameter for the monitoring period                                                     | 88.581 MWh (Total project WEC generation during the monitoring period) /02/. This value is not used in the ER calculation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Monitoring equipment                                                                                       | Not Applicable since the parameter is calculated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Accuracy of the monitoring equipment                                                                       | Not Applicable since the parameter is calculated. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Measuring/Reading/Recording frequency                                                                      | Recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Calculation method (if applicable)                                                                         | <p>Calculated as described below:</p> <p>Summation of electricity generated by the project activity WECs recorded at respective LCS meters- <math>E_{Controller,Export}</math></p> <p>Joint meter reading for gross export electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR,Export}</math></p> <p>Joint meter reading for gross import electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR,Import}</math></p> <p>Gross electricity exported by project and non project WECs connected to the sub-station main meter as per LCS meter reading- <math>\sum E_{Controller,Export}</math></p> <p>Considering above, <math>E_{ImportMultificationFactor} = \frac{E_{JMR,Import}}{\sum E_{Controller,Export}}</math> is calculated and accordingly, <math>E_{WEC,Import} = E_{ImportMultificationFactor} * E_{controller,Export}</math></p> <p>The above calculation is done by O&amp; M provider and forms part of the JMR. The value is directly taken from monthly JMR readings /12/. The same is also cross checked from monthly invoice and found to be correct /13/.</p> |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Not applicable since the parameter is calculated. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## VERIFICATION/CERTIFICATION REPORT

|                                                                                       |                |
|---------------------------------------------------------------------------------------|----------------|
| Calibration certificates                                                              | Not applicable |
| Does the calibration of meters have been done by an accredited person or institution? | Not applicable |

## VERIFICATION/CERTIFICATION REPORT

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Unit                                                                                                  | $\sum_{project} E_{WEC, export}$ ; MWh                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description                                                                                                | Summation of gross electricity exported (at substation point) by all the WECs of the project activity.<br>Where j is any WEC between 1 to 75 of the project activity connected to main meter & backup meter at Akal substation and secondary backup meter at Bhu substation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Source of data to be used                                                                                  | Calculated since this is summation of $E_{WEC, Export, j}$ . Calculation of $E_{WEC, Export, i}$ is explained above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Value of monitored parameter for the monitoring period                                                     | 101,967.810 MWh (Total project WEC generation during the monitoring period) /02/. This value is not used in the ER calculation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Monitoring equipment                                                                                       | Not Applicable since the parameter is calculated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Accuracy of the monitoring equipment                                                                       | Not Applicable since the parameter is calculated. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Measuring/Reading/Recording frequency                                                                      | Recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Calculation method (if applicable)                                                                         | <p>Calculated as described below:</p> <p>Summation of electricity generated by the project activity WECs recorded at respective LCS meters- <math>E_{Controller, Export}</math></p> <p>Joint meter reading for gross export electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR, Export}</math></p> <p>Joint meter reading for gross import electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR, Import}</math></p> <p>Gross electricity exported by project and non project WECs connected to the sub-station main meter as per LCS meter reading- <math>\sum E_{Controller, Export}</math></p> <p>Considering above, <math>E_{ExportMultificationFactor} = \frac{E_{JMR, Export}}{\sum E_{Controller, Export}}</math> is calculated and accordingly, <math>E_{ExportMultificationFactor} * E_{controller, Export} = E_{WEC, Export}</math></p> <p>The above calculation is done by O&amp; M provider and forms part of the JMR. The value is directly taken from monthly JMR readings /12/. The same is also cross checked from monthly invoice and found to be correct /13/.</p> |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Not applicable since the value is calculated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency                         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## VERIFICATION/CERTIFICATION REPORT

|                                                                                       |                |
|---------------------------------------------------------------------------------------|----------------|
| been respected?                                                                       |                |
| Calibration certificates                                                              | Not applicable |
| Does the calibration of meters have been done by an accredited person or institution? | Not applicable |

## VERIFICATION/CERTIFICATION REPORT

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data Unit                                                                                                  | $\sum_{project} E_{WEC, Import} ; \text{MWh}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Description                                                                                                | Summation of electricity imported (at substation point) by all the WECs of the project activity.<br>Where, j is any value between 1 to 75 representing WECs of the project activity connected to main meter & backup meter at Akal substation and secondary backup meter at Bhu substation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Source of data to be used                                                                                  | Calculated since this is summation of $E_{WEC, Import, j}$ . Calculation of $E_{WEC, Import, i}$ is explained above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Value of monitored parameter for the monitoring period                                                     | 88.581 MWh (Total project WEC generation during the monitoring period) /02/. This value is not used in the ER calculation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Monitoring equipment                                                                                       | Not Applicable since the parameter is calculated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Accuracy of the monitoring equipment                                                                       | Not Applicable since the parameter is calculated. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Measuring/Reading/Recording frequency                                                                      | Recorded monthly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Calculation method (if applicable)                                                                         | <p>Calculated as described below:</p> <p>Summation of electricity generated by the project activity WECs recorded at respective LCS meters- <math>E_{Controller, Export}</math></p> <p>Joint meter reading for gross export electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR, Export}</math></p> <p>Joint meter reading for gross import electricity as recorded at the main meter at substation for project and non project WECs- <math>E_{JMR, Import}</math></p> <p>Gross electricity exported by project and non project WECs connected to the sub-station main meter as per LCS meter reading- <math>\sum E_{Controller, Export}</math></p> <p>Considering above, <math>E_{ImportMultificationFactor} = \frac{E_{JMR, Import}}{\sum E_{Controller, Export}}</math> is calculated and accordingly, <math>E_{ImportMultificationFactor} * E_{controller, Export} = E_{WEC, Import}</math></p> <p>The above calculation is done by O&amp; M provider and forms part of the JMR. The value is directly taken from monthly JMR readings /12/. The same is also cross checked from monthly invoice and found to be correct /13/.</p> |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Not applicable since the value is calculated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency                         | Not applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## VERIFICATION/CERTIFICATION REPORT

|                                                                                       |                |
|---------------------------------------------------------------------------------------|----------------|
| been respected?                                                                       |                |
| Calibration certificates                                                              | Not applicable |
| Does the calibration of meters have been done by an accredited person or institution? | Not applicable |

PP has installed a backup energy meter at project site (Bhu sub-station) connecting project and non-project WECs which is only for reference purpose and not used for monthly recording (JMR) and invoice. This is in line with the registered PDD /03/. The details of the energy meter installed at Bhu sub-station is given below:

| Data/Parameter                                                                                             | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitoring equipment                                                                                       | Energy Meter:<br>Make: L & T<br>Serial No: RJB00050<br>Accuracy:0.2S                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
| Accuracy of the monitoring equipment                                                                       | The energy meter is of accuracy class 0.2S. This is in line with the registered PDD and validation report /03/, /05/.                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Calibration</b>                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
| Calibration frequency/interval<br>Is the calibration interval in line with the monitoring plan of the PDD? | Calibration of the energy meter is once in a year. This is as per the registered PDD /03/.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
| Does the calibration cover the monitoring period?<br>Has the calibration frequency been respected?         | The monitoring period is from 01/09/2013 to 31/01/2015. The back-up meter (at Bhu sub-station) was calibrated on 29/12/2012 (with validity until 28/12/2013) /04/, on 28/12/2013 (with validity until 28/12/2014) and on 11/02/2015 (with validity until 11/02/2016) /16/. There has been a delay in last calibration. Since the value recorded in this energy meter is not referred in the ER calculation, no impact on ER is envisaged. Hence, calibration gas is accepted.                                                                |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
| Calibration certificates                                                                                   | <table border="1"> <thead> <tr> <th>Meter no.</th><th>Calibration details</th></tr> </thead> <tbody> <tr> <td>RJB00050</td><td> a) Calibration certificate as per last verification report dated 26/12/2012 /04/.<br/> b) Calibration certificate (No. C&amp;IJ/CAL/S/13-12/081) issued to M/s Wind World Energy Limited for energy meter Sr. No. RJB00050 dated 28/12/2013 with validity until 28/12/2014 and certificate (No. C&amp;IJ/CAL/S/15-02/066) dated 11/02/2015 with validity until 11/02/2016 /16/. </td></tr> </tbody> </table> | Meter no. | Calibration details | RJB00050 | a) Calibration certificate as per last verification report dated 26/12/2012 /04/.<br>b) Calibration certificate (No. C&IJ/CAL/S/13-12/081) issued to M/s Wind World Energy Limited for energy meter Sr. No. RJB00050 dated 28/12/2013 with validity until 28/12/2014 and certificate (No. C&IJ/CAL/S/15-02/066) dated 11/02/2015 with validity until 11/02/2016 /16/. |
| Meter no.                                                                                                  | Calibration details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
| RJB00050                                                                                                   | a) Calibration certificate as per last verification report dated 26/12/2012 /04/.<br>b) Calibration certificate (No. C&IJ/CAL/S/13-12/081) issued to M/s Wind World Energy Limited for energy meter Sr. No. RJB00050 dated 28/12/2013 with validity until 28/12/2014 and certificate (No. C&IJ/CAL/S/15-02/066) dated 11/02/2015 with validity until 11/02/2016 /16/.                                                                                                                                                                        |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |
| Does the calibration of meters have been done by an accredited person or institution?                      | Yes. C&I Calibrations Pvt. Ltd. is accredited by NABL /16/.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           |                     |          |                                                                                                                                                                                                                                                                                                                                                                       |

## VERIFICATION/CERTIFICATION REPORT

### 3.5.3 Assessment of data and calculation of emission reductions

The data for all the monitoring parameters have been correctly measured, recorded according to the applied monitoring methodology ACM0002, version 6.0 /11/ and the registered PDD /03/. All the data are available for this monitoring period.

#### Cross-check reported data:

No significant reporting risks have been identified for the data reported. The net electricity supplied to grid by the project WECs ( $EG_y$ ) is calculated from as the difference of gross export ( $\sum_{project} E_{WEC, export}$ )

and gross import ( $\sum_{project} E_{WEC, import}$ ). Gross electricity export ( $\sum_{project} E_{WEC, export}$ ) and gross electricity

import ( $\sum_{project} E_{WEC, import}$ ) are calculated from monthly reading at calibrated common energy meter at

sub-station which monitor continuously electricity export ( $E_{JMR, Export}$ ) and import ( $E_{JMR, Import}$ ) from project and non-project WECs.  $E_{JMR, Export}$  and  $E_{JMR, Import}$  (Joint meter reading) is taken on monthly basis by state utility in presence of representative of project proponent and accordingly gross export and gross import by project WECs are calculated and provided in JMR copy /12/. RINA has cross checked monthly JMR copies /12/ and found that reported gross export and gross import for the project WECs are consistent in the MR.

Net electricity exported ( $EG_y$ ) by the project WECs as recorded in monthly JMR /12/ for the project WECs is used in emission reduction calculations /02/. Further, electricity generation of individual WEC ( $E_{Controller, Export}$ ) as recorded in control panel of individual WEC is monitored in central monitoring station on continuous basis and recorded monthly /02/. These are (gross export and gross import) then transferred to excel spread sheets /02/ which have been used for emission reduction calculations. RINA has been able to confirm that the project has operated within the design capacity during the current monitoring period which is confirmed from the monthly electricity generation records /12/. Further, the monthly generation export to grid data have been cross checked with the invoices raised to Jaipur DISCOM /13/.

The calibration of monitoring equipment (energy meters) has been done as per registered PDD (once in a year for main and check meters installed at Akal substation) /03/ and same has been verified by RINA /14/, /15/. Gross export and gross import data is monitored and recorded from calibrated energy meters at sub-station, individual WEC generation (project WECs) in control panel and the readings are recorded on monthly /02/, /12/ and subsequently transferred to excel spread sheets /02/.

It was verified that main and check meter is of accuracy 0.2 S /14/, /15/ as mentioned in the registered PDD /03/. The net electricity supplied by the project activity during the current monitoring period is 101,866.091 MWh /01/, /02/. This is also cross checked from monthly JMR copies and invoices raised to state utility /12/, /13/. The resulting baseline emissions of reductions of 89,017.00 tCO<sub>2</sub>e after multiplying with the grid emission factor fixed *ex-ante* at 0.87387 tCO<sub>2</sub>/MWh /01/, /02/.

The project emission and leakage emission is zero in line with the registered PDD /03/. RINA is able to confirm that appropriate methods and formulae for calculating baseline emissions, project emissions and leakage have been followed and the same have been verified.

RINA is of the opinion that the emission factors that have been applied in the calculations are conservative and justified based on the validated PDD /03/, /05/.

### 3.5.4 Accuracy of emission reduction calculations

The emission reduction calculations provided in the spreadsheet /02/ have been verified to be correct and in line with the registered PDD /03/.

## VERIFICATION/CERTIFICATION REPORT

The emission reductions from the project for the monitoring period as reported in the monitoring report revision 02 of 16/04/2015 **/01/** is equivalent to 89,017 tCO<sub>2e</sub>. The reported emission reductions are 37.82% % less than the estimated emission reduction of 143,149 tCO<sub>2e</sub> (equivalent emission reduction for 17 months)**/03/**. The 37.82% less emission reduction is due to low PLF which is not under the control of PP.

The data presented in the monitoring report **/01/** were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. Sufficient evidence was presented and verified by RINA for the reported emission reductions as listed in the above Section 3.5.3.

### 3.5.5 Management system and quality control

Data was collected based on a data management procedure as described in the registered PDD **/03/**. The monitoring and reporting of electricity data is in accordance with well-established operational procedures. The site visit confirmed that the management system for the CDM project is in place and can be traced, such as the organizational structure with responsibilities, monitoring procedure and monitoring management, emergency treatment procedure and competence criteria of CDM personnel involved in the CDM project. The organizational structure, responsibilities have been detailed in the MR for the project activity and were found to be adequate as confirmed during the site visit. Thus, the management and operational system: the responsibilities and authorities for monitoring and reporting are in accordance with the responsibilities and authorities stated in the monitoring plan.

## VERIFICATION/CERTIFICATION REPORT

### 4 VERIFICATION AND CERTIFICATION OPINION

RINA Service Spa (RINA) has performed verification of the emission reductions reported for the project activity “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” in India, CDM Registration Reference N° 1168, for the period 01/09/2013 to 31/01/2015, with regard to the relevant requirements for CDM activities.

The project participants of the “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” project are responsible for:

- the preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered project design document version 12 of 14/11/2013
- the development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project

It is the responsibility of RINA to express an independent verification opinion about the project's conformity with the requirements of paragraph 62 of the CDM modalities and procedures and on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by an on-site assessment RINA can confirm that:

- the project has been implemented and operated as per the registered PDD;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable CDM requirements;
- the monitoring is in place as per the applied baseline and monitoring methodology;
- the monitoring complies with the monitoring plan in the registered PDD;
- the monitoring plan in the registered PDD is as per the applied baseline and monitoring methodology.

It is RINA's opinion that the GHG emission reduction stated in the monitoring report version 02 of 16/04/2015 for the “Enercon Wind Farm (Hindustan) Ltd in Rajasthan” project in India for the period 01/09/2013 to 31/01/2015 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 6.0 of 19/05/2006 and the monitoring plan contained in the registered.

Hence RINA is able to certify that the emission reductions from the project during the monitoring period 01/09/2013 to 31/01/2015 amount to 89,017 tCO<sub>2e</sub>.

Genova, 24/04/2015



Laura Severino

Authorized officer signing for the DOE

RINA Services S.p.A.

# **APPENDIX A**

## **VERIFICATION PROTOCOL**

TABLE 1 REQUIREMENTS CHECK LIST

| Checklist Question                       |                                                                                                                                                                                                    | Reference              | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Conclusion |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>A Monitoring Report</b>               |                                                                                                                                                                                                    |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |
| A.1                                      | Does the used project title clearly enable the reader to identify the unique CDM activity?<br><br>Is there an indication of a revision number, the date of the revision and the monitoring period? | /01/, /03/             | DR               | Yes, the project title is “Enercon Wind Farm (Hindustan) Ltd in Rajasthan”, which clearly identifies the unique CDM activity.<br><br>The monitoring report, version 1.0 of 20/02/2015 covers the monitoring period from 01/09/2013 – 31/01/2015.                                                                                                                                                                                                                                                                                                              | OK         |
| A.2                                      | Does the project comply with the applicable requirements for completing the Monitoring Reports (latest version available)?                                                                         | /01/, /07/             | DR               | Yes, the project complies with the applicable requirements for completing the Monitoring Report Form (CDM-MR-FORM), version 04.0 of 25/06/2014. The MR is completed in accordance to the instructions for filling out the Monitoring Report form. However, please clarify the following:<br>1) The revised registered PDD as per UNFCCC project view page is version 12 dated 14/11/2013 whereas the MR in section B.2.3 does not refer the same.<br>2) As per instructions for filling out the Monitoring Report form section A.6 of the MR is not complete. | CAR-1, OK  |
| A.3                                      | Does the MR comply with the template available (latest version)?                                                                                                                                   | /01/, /07/             | DR               | Please refer to the above section A.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CAR-1, OK  |
| <b>B Description of Project Activity</b> |                                                                                                                                                                                                    |                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |            |
| B.1                                      | Is the actual implementation and operation of the proposed project activity in accordance with the project activity in the registered PDD?                                                         | /01/, /03/, /04/, /05/ | DR               | The project activity is registered under CDM program with UNFCCC on 15/03/2010. The crediting period for the project activity is from 15/03/2010 to 14/03/2020 (fixed). The current monitoring period as mentioned in the monitoring report is 01/09/2013 to 31/01/2015, which is in line with the crediting period.                                                                                                                                                                                                                                          | OK         |

<sup>1</sup> MoV: DR document review, I interview, CC cross checking

| Checklist Question |                                                                                                                                                                                                                                                                                                                                                                                                              | Reference              | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Conclusion |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                    |                                                                                                                                                                                                                                                                                                                                                                                                              |                        |                  | <p>As per the registered (revised) PDD, the project activity is installation of 75 WECs (800 kW each) of Enercon make E-48 totaling to a capacity of 60 MW, in Rajasthan state of India and exporting power to NEWNE grid. The project leads to reduced greenhouse gas emissions because it displaces electricity from fossil fuel dominated electricity generation plants connected in grid.</p> <p>The commissioning dates of the WTGS were cross checked with the previous verification report and also during the site visit and the same is found to be acceptable.</p> <p>During site visit, it was checked that all components of the project activity as stated in the PDD were in operation. Further, the verification team also verified the technology and confirms that the technology is not substituted.</p> |            |
| B.2                | In case of deviation between the registered project and the actual implementation/operation, do they comply with the requirements of the Project Standards?                                                                                                                                                                                                                                                  | /01/, /03/, /04/, /05/ | DR/<br>CC/ I/    | Not applicable since the actual implementation of the project activity is in line with the registered PDD during this monitoring period.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | OK         |
| B.3                | For project activity that consist of more than one site:<br>- describe the status of the implementation and starting date of opearation of each site;<br>For project activity with phased implementation:<br>- describe the progress of the proposed project activity achieved in each phase number;<br>- if the phased implementaion is delayed, described the reasons and the expected impenetation dates. | /01/, /03/, /04/, /05/ | DR, I            | <p>The project involves the installation of 75 WECs (800 kW each) of Enercon make E-48 totaling to a capacity of 60 MW, in Rajasthan state of India to provide reliable, renewable power to the NEWNE grid.</p> <p>The machines under the project activity were commissioned by 25/12/2006. The commissioning date of the WECs were cross checked with the previous verification report and also during the site visit and the same is found to be acceptable.</p>                                                                                                                                                                                                                                                                                                                                                         | OK         |
| B.4                | Methodology and methodological tool applied for the registered project activity                                                                                                                                                                                                                                                                                                                              | /01/, /03/, /11/       | DR, I            | The project activity applies "ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | OK         |

| Checklist Question                                                                                                                                                               |                                                                                                               | Reference          | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Conclusion |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                                                                                                                                                                                  |                                                                                                               |                    |                  | sources", version 06 of 19/05/2006.<br>The tools applied are:<br>Tool for the demonstration and assessment of additionality – Version 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |
| <b>C Compliance of the monitoring activities with the registered monitoring plan / Compliance of the monitoring plan with the monitoring methodology and methodological tool</b> |                                                                                                               |                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |
| <b>C.1 Monitoring plan</b>                                                                                                                                                       |                                                                                                               |                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |
| C.1.1                                                                                                                                                                            | Does the monitoring plan included in the registered CDM project activity comply with the applied methodology? | /01/, /03/<br>/11/ | DR               | Yes, the monitoring plan in the registered CDM PDD complies with the applied methodology ACM0002, version 06 of 19/05/2006.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | OK         |
| C.1.2                                                                                                                                                                            | Does the monitoring comply with the monitoring plan in the registered PDD?                                    | /01/, /03/         | DR, I            | Yes, the monitoring during this monitoring period complies with the registered PDD.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | OK         |
| <b>C.2 Data and parameters fixed ex-ante or at renewal crediting period</b>                                                                                                      |                                                                                                               |                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |
| C.2.1                                                                                                                                                                            | Which parameters were available at validation and how were they verified?                                     | /01/, /03/<br>/05/ | DR               | <p>EF<sub>OM,y</sub>: Operating margin Emission Factor of northern regional grid (currently included under NEWNE grid). The values for this parameter is average of 0.9993 tCO<sub>2</sub>/MWh (2002-03), 0.9869 (2003-04) and 0.9756 (2004-05) and fixed as per the registered CDM PDD; and the same was taken from the official data published by CEA, version 1.1. The correctness of the value has been confirmed by the validation team.</p> <p>EF<sub>BM,y</sub>: Build Margin Emission factor of northern regional grid (presently included under NEWNE grid). The values for this parameter is 0.5335 tCO<sub>2</sub>/MWh for NEWNE grid, which are available and fixed as per the registered CDM PDD; and the same was taken from the official data published by CEA. The correctness of the value has been confirmed by the validation team.</p> <p>EF<sub>CM,y</sub>: Combined margin emission factor of northern regional grid (presently included under NEWNE grid). The value for this parameter is 0.87387 tCO<sub>2</sub>/MWh, which are available and fixed</p> | CAR-2, OK  |

| Checklist Question                        |                                                                                                                                                                                                                      | Reference                          | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Conclusion      |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|------------|-----|--------------|------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------|-----------|
|                                           |                                                                                                                                                                                                                      |                                    |                  | <p>as per the registered CDM PDD; and the same was taken from the official data published by the CEA. The correctness of the value has been confirmed by the validation team.</p> <p>The value of the above parameters are derived from the registered PDD and is consistent with the value in the validation report, the value of the parameter will be fixed during the whole fixed crediting period.</p> <p>However, kindly respond the followings:</p> <ul style="list-style-type: none"><li>1) The description of EF<sub>OM,y</sub> is not in line with registered PDD.</li><li>2) The description of EF<sub>CM,y</sub> is not in line with registered PDD.</li></ul>                                           |                 |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
| C.2.2                                     | What default data were selected and applied?                                                                                                                                                                         | /01/, /03/<br>/05/                 | DR               | Please refer to section C.2.1 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CAR-2, OK       |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
| C.3 Data and parameters monitored ex-post |                                                                                                                                                                                                                      |                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
| C.3.1                                     | Which parameter have been monitored during the monitoring period?<br><br>(Data/Parameter monitored / Data unit / Description / Source of data to be used / Value data for the monitoring period)                     | /01/, /02/,<br>/03/, /04/,<br>/05/ | DR/CC            | <p>The following parameters are being monitored during the current monitoring period which is in line with the registered CDM PDD:</p> <table><tr><td>Data/Parameter:</td><td>EG<sub>y</sub></td></tr><tr><td>Data unit:</td><td>MWh</td></tr><tr><td>Description:</td><td>Net electricity supplied to the grid by the Project.</td></tr><tr><td>Source of data:</td><td>Electricity supplied to the grid as per monthly breakup sheet prepared by Wind World (India) Limited and the same will cross verified by the tariff invoices raised on RRVPNL/Ajmer &amp; Jaipur DISCOM (State Utility).</td></tr><tr><td>Value(s) of monitored parameter:</td><td>Value is not consistent with ER sheet.</td></tr></table> | Data/Parameter: | EG <sub>y</sub> | Data unit: | MWh | Description: | Net electricity supplied to the grid by the Project. | Source of data: | Electricity supplied to the grid as per monthly breakup sheet prepared by Wind World (India) Limited and the same will cross verified by the tariff invoices raised on RRVPNL/Ajmer & Jaipur DISCOM (State Utility). | Value(s) of monitored parameter: | Value is not consistent with ER sheet. | CAR-3, OK |
| Data/Parameter:                           | EG <sub>y</sub>                                                                                                                                                                                                      |                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
| Data unit:                                | MWh                                                                                                                                                                                                                  |                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
| Description:                              | Net electricity supplied to the grid by the Project.                                                                                                                                                                 |                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
| Source of data:                           | Electricity supplied to the grid as per monthly breakup sheet prepared by Wind World (India) Limited and the same will cross verified by the tariff invoices raised on RRVPNL/Ajmer & Jaipur DISCOM (State Utility). |                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |
| Value(s) of monitored parameter:          | Value is not consistent with ER sheet.                                                                                                                                                                               |                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                 |            |     |              |                                                      |                 |                                                                                                                                                                                                                      |                                  |                                        |           |

| Checklist Question               | Reference                                                                                                                                                                                                                                       | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Conclusion      |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------|------------|-----|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------|--|
|                                  |                                                                                                                                                                                                                                                 |                  | <table><tr><td>Data/Parameter:</td><td>E<sub>JMR,Export</sub></td></tr><tr><td>Data unit:</td><td>MWh</td></tr><tr><td>Description:</td><td>Gross Electricity exported (at substation point), as recorded by the main meter &amp; backup meter at the Akal substation. This data represents the total gross electricity exported by all the WECs (project and non-project) at substation point.</td></tr><tr><td>Source of data:</td><td>Export value from Joint meter reading taken at Substation in the presence of representatives of WWIL and state utility.</td></tr><tr><td>Value(s) of monitored parameter:</td><td>No value has been reported.</td></tr></table> | Data/Parameter: | E <sub>JMR,Export</sub> | Data unit: | MWh | Description: | Gross Electricity exported (at substation point), as recorded by the main meter & backup meter at the Akal substation. This data represents the total gross electricity exported by all the WECs (project and non-project) at substation point. | Source of data: | Export value from Joint meter reading taken at Substation in the presence of representatives of WWIL and state utility. | Value(s) of monitored parameter: | No value has been reported. |  |
| Data/Parameter:                  | E <sub>JMR,Export</sub>                                                                                                                                                                                                                         |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
| Data unit:                       | MWh                                                                                                                                                                                                                                             |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
| Description:                     | Gross Electricity exported (at substation point), as recorded by the main meter & backup meter at the Akal substation. This data represents the total gross electricity exported by all the WECs (project and non-project) at substation point. |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
| Source of data:                  | Export value from Joint meter reading taken at Substation in the presence of representatives of WWIL and state utility.                                                                                                                         |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
| Value(s) of monitored parameter: | No value has been reported.                                                                                                                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
|                                  |                                                                                                                                                                                                                                                 |                  | <table><tr><td>Data/Parameter:</td><td>E<sub>JMR,Import</sub></td></tr><tr><td>Data unit:</td><td>MWh</td></tr><tr><td>Description:</td><td>Gross Electricity imported (at substation point), as recorded by the main meter &amp; backup meter at the Akal Substation. This data represents the total gross electricity imported by all the WECs (project and non-project) at substation point.</td></tr><tr><td>Source of data:</td><td>Import value from Joint meter reading taken at</td></tr></table>                                                                                                                                                                | Data/Parameter: | E <sub>JMR,Import</sub> | Data unit: | MWh | Description: | Gross Electricity imported (at substation point), as recorded by the main meter & backup meter at the Akal Substation. This data represents the total gross electricity imported by all the WECs (project and non-project) at substation point. | Source of data: | Import value from Joint meter reading taken at                                                                          |                                  |                             |  |
| Data/Parameter:                  | E <sub>JMR,Import</sub>                                                                                                                                                                                                                         |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
| Data unit:                       | MWh                                                                                                                                                                                                                                             |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
| Description:                     | Gross Electricity imported (at substation point), as recorded by the main meter & backup meter at the Akal Substation. This data represents the total gross electricity imported by all the WECs (project and non-project) at substation point. |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |
| Source of data:                  | Import value from Joint meter reading taken at                                                                                                                                                                                                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                         |            |     |              |                                                                                                                                                                                                                                                 |                 |                                                                                                                         |                                  |                             |  |

| Checklist Question | Reference | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Conclusion |
|--------------------|-----------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                    |           |                  | <div> <div></div> <div>Akal Substation in the presence of representatives of Wind World (India) Limited and state utility.</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |
|                    |           |                  | <div> <div>Value(s) of monitored parameter:</div> <div>No value has been reported.</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |
|                    |           |                  | <div> <div>Data/Parameter:</div> <div>E<sub>Controller, Export, i</sub></div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |
|                    |           |                  | <div> <div>Data unit:</div> <div>MWh</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |
|                    |           |                  | <div> <div>Description:</div> <div> <p>Gross Electricity export (at WEC point at the site) by a WEC (project or non-project), as measured at the LCS meter. Each WEC has exclusive LCS meter that records gross electricity export from the WEC (project or non-project). This represents gross electricity export by individual WEC (at WEC point at the site) where i is any WEC between 1 to j+k<br/> j is any WEC between 1 to 75 of the project activity connected to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.<br/> k is any WEC between 76 to 290 of the non-project connected to main meter &amp; backup meter at Akal substation</p> </div> </div> |            |

| Checklist Question               | Reference                                                                                                                                                                                                                                                                                                                                                                                                                                         | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Conclusion      |                                               |                 |                                                                                                                                                                                                                                                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                  | <table><tr><td></td><td>and secondary backup meter at Bhu substation.</td></tr><tr><td>Source of data:</td><td>This 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 the LCS meters of all WECs is retrieved) at the project site.</td></tr><tr><td>Value(s) of monitored parameter:</td><td>No value has been reported.</td></tr></table>                                                                                                                                                                |                 | and secondary backup meter at Bhu substation. | Source of data: | This 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 the LCS meters of all WECs is retrieved) at the project site. | Value(s) of monitored parameter: | No value has been reported.                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|                                  | and secondary backup meter at Bhu substation.                                                                                                                                                                                                                                                                                                                                                                                                     |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                                               |                 |                                                                                                                                                                                                                                                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Source of data:                  | This 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 the LCS meters of all WECs is retrieved) at the project site.                                                                                                                                                                                            |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                                               |                 |                                                                                                                                                                                                                                                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Value(s) of monitored parameter: | No value has been reported.                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                                               |                 |                                                                                                                                                                                                                                                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                  | <table><tr><td>Data/Parameter:</td><td><math>\Sigma E_{\text{Controller.Export},i}</math></td></tr><tr><td>Data unit:</td><td>MWh</td></tr><tr><td>Description:</td><td>Summation of gross electricity exported (at WEC point at the site) by all the WECs (project and non-project) connected to the main meter at the substation, measured at the LCS meter of each WEC. This is summation of gross electricity exported by the WECs (at WEC point at the site) including WECs of the project and non-project. where i is any WEC between 1 to j+k<br/>j is any WEC between 1 to 75 of the project activity connected to</td></tr></table> | Data/Parameter: | $\Sigma E_{\text{Controller.Export},i}$       | Data unit:      | MWh                                                                                                                                                                                                                                                    | Description:                     | Summation of gross electricity exported (at WEC point at the site) by all the WECs (project and non-project) connected to the main meter at the substation, measured at the LCS meter of each WEC. This is summation of gross electricity exported by the WECs (at WEC point at the site) including WECs of the project and non-project. where i is any WEC between 1 to j+k<br>j is any WEC between 1 to 75 of the project activity connected to |  |
| Data/Parameter:                  | $\Sigma E_{\text{Controller.Export},i}$                                                                                                                                                                                                                                                                                                                                                                                                           |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                                               |                 |                                                                                                                                                                                                                                                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Data unit:                       | MWh                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                                               |                 |                                                                                                                                                                                                                                                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Description:                     | Summation of gross electricity exported (at WEC point at the site) by all the WECs (project and non-project) connected to the main meter at the substation, measured at the LCS meter of each WEC. This is summation of gross electricity exported by the WECs (at WEC point at the site) including WECs of the project and non-project. where i is any WEC between 1 to j+k<br>j is any WEC between 1 to 75 of the project activity connected to |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |                                               |                 |                                                                                                                                                                                                                                                        |                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |

| Checklist Question | Reference | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Conclusion |
|--------------------|-----------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                    |           |                  | <div>main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation. k is any WEC between 76 to 290 of the non-project connected to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.</div> <div>Source of data: This 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 the LCS meters of all WECs is retrieved) at the project site.</div> <div>Value(s) of monitored parameter: Value is not consistent with ER sheet.</div> |            |
|                    |           |                  | <div>Data/Parameter: <math>E_{WEC, Export, i}</math></div> <div>Data unit: MWh</div> <div>Description: Gross Electricity exported (at substation point) by an individual WEC (j of the project activity) to the grid that is connected to main meter &amp; backup meter at Akal substation. Where j is any WEC between 1 to 75 of the project activity connected</div>                                                                                                                                                                                                                                                                       |            |

| Checklist Question | Reference | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Conclusion |
|--------------------|-----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                    |           |                  | <div>to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.</div> <div>Source of data: Calculated multiplying monitored individual WEC controller generation <math>(E_{\text{controller,export},i})</math> with export multiplying factor <math display="block">\frac{E_{\text{JMR Export}}}{(\sum E_{\text{Controller Export},i})}</math></div> <div>Value(s) of monitored parameter: PP has not provided individual <math>E_{\text{WEC,Export},i}</math> data for the monitoring period.</div>                                    |            |
|                    |           |                  | <div>Data/Parameter: <math>E_{\text{WEC,Import},i}</math></div> <div>Data unit: MWh</div> <div>Description: Gross Electricity imported (at substation point) by an individual WEC (j of the project activity) to the grid that is connected to main meter &amp; backup meter at Akal substation. Where j is any WEC between 1 to 75 of the project activity connected to main meter &amp; backup meter at Akal substation and secondary backup meter at Bhu substation.</div> <div>Source of data: Calculated multiplying monitored individual WEC controller generation</div> |            |

| Checklist Question | Reference | MoV <sup>1</sup> | Comments                                                                                                                                                                                                | Conclusion |
|--------------------|-----------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|                    |           |                  | <div> <div></div> <div> <math display="block">\frac{E_{JMR,import}}{\sum E_{Controller,Export,i}}</math> </div> <div>(<math>E_{controller,import,i}</math> with import multiplying factor)</div> </div> |            |
|                    |           |                  | <div>Value(s) of monitored parameter:</div> <div>PP has not provided individual <math>E_{WEC,Import,i}</math> data for the monitoring period.</div>                                                     |            |
|                    |           |                  | <div>Data/Parameter:</div> <div><math>\sum_{Project} E_{WEC,Export}</math></div>                                                                                                                        |            |
|                    |           |                  | <div>Data unit:</div> <div>MWh</div>                                                                                                                                                                    |            |
|                    |           |                  | <div>Description:</div> <div>Summation of gross electricity exported (at the sub-station point) by all the WECs of the project activity.</div>                                                          |            |
|                    |           |                  | <div>Source of data:</div> <div>Summation of data values of <math>E_{WEC,Export,j}</math> for all the WECs included in the project activity.</div>                                                      |            |
|                    |           |                  | <div>Value(s) of monitored parameter:</div> <div>1,01,967.810</div>                                                                                                                                     |            |
|                    |           |                  | <div>Data/Parameter:</div> <div><math>\sum_{Project} E_{WEC,import}</math></div>                                                                                                                        |            |
|                    |           |                  | <div>Data unit:</div> <div>MWh</div>                                                                                                                                                                    |            |
|                    |           |                  | <div>Description:</div> <div>Summation of gross electricity imported (at the sub-station point) by all the WECs of the project activity.</div>                                                          |            |
|                    |           |                  | <div>Source of data:</div> <div>Summation of data values of <math>E_{WEC,Import,j}</math> for all the WECs included in the project activity.</div>                                                      |            |

| Checklist Question                  |                                                                                                                                         | Reference          | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Conclusion       |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|                                     |                                                                                                                                         |                    |                  | <div>Value(s) of monitored parameter: 88.581</div> <p>Kindly respond to the following observations:</p> <ol style="list-style-type: none"> <li>1. The EGy value is not consistent with the ER sheet.</li> <li>2. MR under table in section D.2 for <math>E_{JMR,Export}</math> and <math>E_{JMR,Import}</math> does not provide monitored value. There is no appendix 3 in the MR.</li> <li>3. For the <math>E_{Controller,Export,i}</math> individual WEC generation is not provided in the ER sheet.</li> <li>4. Reported value in MR for <math>\Sigma E_{Controller,Export,i}</math> is not consistent with ER sheet.</li> <li>5. PP has not provided individual <math>E_{WEC,Export,i}</math> data for the monitoring period.</li> <li>6. PP has not provided individual <math>E_{WEC,Import,i}</math> data for the monitoring period.</li> </ol> |                  |
| C.3.2                               | Is the measurement equipment described? Is the accuracy of the measurement equipment addressed and deemed appropriate?                  | /01/, /03/<br>/12/ | DR               | No; energy meter (main and check) installed at DISCOM sub-station are the monitoring equipment for the project activity and of 0.2S accuracy class. Although $EG_y$ , $E_{JMR,Export}$ , and $E_{JMR,Import}$ are calculated values, these are derived from monitored and recorded data at energy meters. However, PP has not provided details of these meters (make, serial number, accuracy, calibration details) in specified section of the tables under section D.2 of the MR. Also, clarify whether $E_{JMR,Export}$ and $E_{JMR,Import}$ are recorded on continuous basis.                                                                                                                                                                                                                                                                     | <b>CAR-4, OK</b> |
| C.3.3                               | Is the measuring/reading/recording frequency adequate for all monitoring parameters? Is it in line with the registered monitoring plan? | /01/, /03/<br>/04/ | DR               | Please refer to section C.3.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>CAR-4, OK</b> |
| <b>C.4 Calibration requirements</b> |                                                                                                                                         |                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |
| C.4.1                               | Are the requirements for maintenance and calibration of measurement equipment described and deemed appropriate?                         | /01/, /03/<br>/04/ | DR               | Please refer to section C.3.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>CAR-4, OK</b> |

| Checklist Question                                  |                                                                                                                                                                                                                                                                                                                                                                                 | Reference                                              | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Conclusion            |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| C.4.2                                               | Does the calibration cover the monitoring period?                                                                                                                                                                                                                                                                                                                               | /01/, /03/<br>/04/                                     | DR               | Please refer to section C.3.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <del>CAR-4</del> , OK |
| C.4.3                                               | Has the calibration frequency been respected?                                                                                                                                                                                                                                                                                                                                   | /01/, /03/<br>/04/                                     | DR               | Please refer to section C.3.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <del>CAR-4</del> , OK |
| C.4.4                                               | Does the calibration of meters have be done by an accredited person or institution?                                                                                                                                                                                                                                                                                             | /01/, /03/<br>/04/                                     | DR               | Please refer to section C.3.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <del>CAR-4</del> , OK |
| C.4.5                                               | In case of delay, describe the applied maximum permissible error                                                                                                                                                                                                                                                                                                                | /01/, /03/<br>/04/                                     | DR               | Please refer to section C.3.2 above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <del>CAR-4</del> , OK |
| <b>C.5 Monitoring of the sustainable indicators</b> |                                                                                                                                                                                                                                                                                                                                                                                 |                                                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |
| C.5.1                                               | Is the monitoring of sustainable development indicators/ environmental impacts warranted by legislation in the host Country?                                                                                                                                                                                                                                                    | /01/, /03/,<br>/04/, /05/,<br>/11/                     | DR               | The monitoring of sustainable development indicators/environmental impacts is not required by legislation of the host country, nor required by the applied methodology ACM0002, version 06 of 19/05/2006                                                                                                                                                                                                                                                                                             | OK                    |
| <b>C.6 Management system and quality control</b>    |                                                                                                                                                                                                                                                                                                                                                                                 |                                                        |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |
| C.6.1                                               | How has it been assessed that the monitoring arrangements described in the monitoring plan are feasible within the project design?                                                                                                                                                                                                                                              | /01/, /03/,<br>/04/, /05/,<br>/11/                     | DR/I             | As checked during the site visit, RINA confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design which further follows the methodology requirements.                                                                                                                                                                                                                                                                                         | OK                    |
| C.6.2                                               | Are procedures identified for day-to-day record handling (including what records to keep, storage area of records and how to process performance documentation)?<br>Will all monitored data required for verification and issuance be kept for two years after the end of the crediting period or the last issuance of CERs, for this project activity, whichever occurs later? | /01/, /03/,<br>/04/, /05/,<br>/11/                     | DR               | Data to be used for emission reductions calculation is recorded on a monthly basis.<br>All monitored data required for verification and issuance will be kept for at least two years after the end of the crediting period.                                                                                                                                                                                                                                                                          | OK                    |
| C.6.3                                               | Are the data management and quality assurance and quality control procedures sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified?                                                                                                                                                                     | /01/, /02/,<br>/03/, /04/,<br>/05/, /11/,<br>/12, /13/ | DR/CC<br>/I      | The meter readings (both export and import), transmission loss and electricity supplied to the grid are recorded in the JMR. Hence all these values have been reproduced from the JMR for calculation of emission reductions. The joint meter readings (JMR) at DISCOM substation contains the value of energy exported and energy imported. Based on JMR and records of individual WEC control panel (LCS) generation net electricity exported by the project WECs are calculated. Based on the net | OK                    |

| Checklist Question                                                                                               |                                                                                                                                                                                                                                                                                         | Reference                          | MoV <sup>1</sup> | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Conclusion            |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|                                                                                                                  |                                                                                                                                                                                                                                                                                         |                                    |                  | export data invoices are raised to State utility. RINA checked the net electricity supplied to the grid by means of joint meter readings. The same was crosschecked with the value mentioned in the invoices and found to be appropriate. RINA, thus confirms that the data management and quality assurance and quality control procedures are sufficient to ensure that the emission reductions achieved by/resulting from the project can be reported ex post and verified. |                       |
| C.6.4                                                                                                            | Are the responsibilities and authorities for monitoring and reporting in accordance with the responsibilities and authorities stated in the monitoring plan?                                                                                                                            | /01/, /03/, /04/, /05/             | DR               | Yes, the responsibilities and authorities for monitoring and reporting lie with Wind World (India) Limited. The same was confirmed through the onsite visit and interviews with O&M staff.                                                                                                                                                                                                                                                                                     | OK                    |
| C.6.5                                                                                                            | Does data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions?                                                                                                                                | /01/, /02/, /03/, /04/, /05/       | DR, CC, I        | As confirmed by the on-site visit, the operational and management structure set up by the project developer can ensure the correct transfer of data and ER reporting.                                                                                                                                                                                                                                                                                                          | OK                    |
| <b>D.1 Assessment of data and calculation of emission reductions/Accuracy of emission reduction calculations</b> |                                                                                                                                                                                                                                                                                         |                                    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |
| D.1.1                                                                                                            | How were the values in the monitoring report verified and cross-checked?                                                                                                                                                                                                                | /01/, /02/, /03/, /04/, /05/, /11/ | DR/CC            | Please refer to section C.6.3 above. However, the emission reduction achieved during this monitoring period is reported different in page 1 of the MR and section A.1 of the MR. Kindly also specify the lower PLF data in comparison to expected PLF in section E.6 of the MR.                                                                                                                                                                                                | <del>CAR-5</del> , OK |
| D.1.2                                                                                                            | If only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved? | /01/, /02/, /03/, /04/, /05/, /11/ | DR/CC            | Not applicable since all the data has been correctly measured, recorded according to the applied monitoring methodology ACM0002, version 6 and the registered PDD for this monitoring period.                                                                                                                                                                                                                                                                                  | OK                    |
| D.1.3                                                                                                            | Emission reductions reported                                                                                                                                                                                                                                                            | /01/, /02/, /03/, /04/, /05/, /11/ | DR/CC            | 89,029 for the monitoring period.                                                                                                                                                                                                                                                                                                                                                                                                                                              | OK                    |
| D.1.4                                                                                                            | Difference between the emission reductions estimated in the registered PDD and the emission reductions                                                                                                                                                                                  | /01/, /02/, /03/, /04/, /05/, /11/ | DR/CC            | Please refer to section D.1.1                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <del>CAR-5</del> , OK |

| Checklist Question                  | Reference | MoV <sup>1</sup> | Comments | Conclusion |
|-------------------------------------|-----------|------------------|----------|------------|
| reported for the monitoring period. |           |                  |          |            |

**TABLE 2 RESOLUTION OF CORRECTIVE ACTION REQUESTS AND CLARIFICATION REQUESTS**

| Corrective action and/ or clarification requests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference to Table 2 | Response by project participants                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Verification Conclusion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>CAR 1</p> <p>Please clarify the following:</p> <ol style="list-style-type: none"> <li>1) The revised registered PDD as per UNFCCC project view page is version 12 dated 14/11/2013 whereas the MR in section B.2.3 does not refer the same.</li> <li>2) As per instructions for filling out the Monitoring Report form section A.6 of the MR is not complete.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                     | A.2, A.3             | <ol style="list-style-type: none"> <li>1) The PDD detail has been incorporated in section B.2.3 of the revised MR.</li> <li>2) In section A.6 of the MR the contact detail has been referred as Appendix 1.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                     | The necessary corrections have been done in the revised MR. <b>CAR is closed.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p>CAR 2</p> <p>Kindly respond the followings:</p> <ol style="list-style-type: none"> <li>1) The description of <math>EF_{OM,y}</math> is not in line with registered PDD.</li> <li>2) The description of <math>EF_{CM,y}</math> is not in line with registered PDD.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | C.2.1                | The description of $EF_{OM,y}$ , $EF_{BM,y}$ , $EF_{CM,y}$ has been revised as per registered PDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The description of $EF_{OM,y}$ , $EF_{BM,y}$ , $EF_{CM,y}$ has been revised as per registered PDD in the revised MR. <b>CAR is closed.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p>CAR 3</p> <p>Kindly respond to the following observations:</p> <ol style="list-style-type: none"> <li>1. The EGY value is not consistent with the ER sheet.</li> <li>2. MR under table in section D.2 for <math>E_{JMR,Export}</math> and <math>E_{JMR,Import}</math> does not provide monitored value. There is no appendix 3 in the MR.</li> <li>3. For the <math>E_{Controller,Export,i}</math> individual WEC generation is not provided in the ER sheet.</li> <li>4. Reported value in MR for <math>\Sigma E_{Controller,Export,i}</math> is not consistent with ER sheet.</li> <li>5. PP has not provided individual <math>E_{WEC,Export,i}</math> data for the monitoring period.</li> <li>6. PP has not provided individual <math>E_{WEC,Import,i}</math> data for the monitoring period.</li> </ol> | C.3.1                | <ol style="list-style-type: none"> <li>1. EGY value in the MR and the ER sheet is consistent.</li> <li>2. Please refer Annex 4 for the details. The same has been incorporated in the MR.</li> <li>3. We have provided the apportioning sheet in the ER sheet and all the data calculation is based on that sheet. Please refer the ER sheet.</li> <li>4. The <math>\Sigma E_{Controller,Export,i}</math> is made consistent as per the ER sheet.</li> <li>5. All the details have been provided in the ER sheet. Please refer the same.</li> <li>6. All the details have been provided in the ER sheet. Please refer the same.</li> </ol> | <ol style="list-style-type: none"> <li>1. EGY value in the MR and the ER sheet is consistent now.</li> <li>2. The monitored value of <math>E_{JMR,Export}</math> and <math>E_{JMR,Import}</math> is now provided in the revised MR as annex. The same is cross checked with monthly JMR copies and found to be correct.</li> <li>3. PP has provided total project WEC generation as per control panel reading the the ER sheet. Hence, accepted.</li> <li>4. Summation of <math>E_{Controller,Export,i}</math> is now consistent in MR and ER sheet.</li> <li>5. PP has provided total project WEC export data as calculated in the ER sheet. The calculation procedure is as per registered PDD and hence accepted by the verification team. The same is also cross checked from monthly JMR and</li> </ol> |

| Corrective action and/ or clarification requests                                                                                                                                                                                                                                                                                                                                                                                          | Reference to Table 2                     | Response by project participants                                                                                                                           | Verification Conclusion                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                            | invoice copies.<br>6. PP has provided total project WEC import data as calculated in the ER sheet. The valuation procedure is as per registered PDD and hence accepted by the verification team. The same is also cross checked from monthly JMR and invoice copies.<br>Hence, <b>CAR is closed.</b> |
| CAR 4<br>Although $E_{G_y}$ , $E_{JMR,Export}$ , and $E_{JMR,Import}$ are calculated values, these are derived from monitored and recorded data at energy meters. However, PP has not provided details of these meters (make, serial number, accuracy, calibration details) in specified section of the tables under section D.2 of the MR. Also, clarify whether $E_{JMR,Export}$ and $E_{JMR,Import}$ are recorded on continuous basis. | C.3.2, C.4.1, C.4.2, C.4.3, C.4.4, C.4.5 | All the meter details have been incorporated in the revised MR.<br>$E_{JMR,Export}$ and $E_{JMR,Import}$ reading are done on monthly basis by EB officials | The energy meter details and calibration details are incorporated in the revised MR under monitoring section. The details are cross checked with calibration certificates and found to be correct. Hence, <b>CAR is closed.</b>                                                                      |
| CAR 5<br>The emission reduction achieved during this monitoring period is reported different in page 1 of the MR and section A.1 of the MR. Kindly also specify the lower PLF data in comparison to expected PLF in section E.6 of the MR                                                                                                                                                                                                 | D.1.2, D.1.4                             | The emission reduction values have been revised in the MR.<br>The lower PLF explanation has been mentioned in the revised MR.                              | The value of emission reduction in the MR is made consistent with ER sheet. The actual generation is lower than expected which represent lower PLF which is not under the control of PP. Response is accepted and <b>CAR is closed.</b>                                                              |

**TABLE 3 FORWARD ACTION REQUEST**

| Forward action request | Reference to Table 2 | Response by project participants | Verification Conclusion |
|------------------------|----------------------|----------------------------------|-------------------------|
| FAR 1                  |                      |                                  |                         |
|                        |                      |                                  |                         |



RINA

## CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:  
We declare that Mr/Mrs/Ms:

**Champok Buragohain**

è qualificato come<sup>1</sup>:  
is qualified as:

**CDM -TEC, -VAL, -VER, -TL**

per le seguenti aree tecniche:  
for the following technical areas:

**1.2, 2.1, 13.1, 13.2**

| AREE TECNICHE<br>TECHNICAL AREAS | DESCRIZIONE DELL'AREA TECNICA<br>TECHNICAL AREA DESCRIPTION | SCOPO SETTORIALE<br>SECTORAL SCOPE |
|----------------------------------|-------------------------------------------------------------|------------------------------------|
| 1.2                              | Renewables                                                  | 1                                  |
| 2.1                              | Electricity distribution                                    | 2                                  |
| 13.1                             | Solid waste and wastewater                                  | 13                                 |
| 13.2                             | Manure                                                      | 13                                 |

in accordo alle istruzioni della Divisione Certificazione.  
in accordance with the instructions of the Certification Division.

| REVISIONE<br>REVISION | DATA<br>DATE | MOTIVAZIONI PER LA REVISIONE<br>REASON FOR THE REVISION |
|-----------------------|--------------|---------------------------------------------------------|
| 0                     | 19-01-2011   | -                                                       |
| 10                    | 22-12-2014   | Updated according to AS ver 6.0                         |

Il Resp. QPT  
Head of QPT

<sup>1</sup> Legend:

VAL: Validator  
VER: Verifier  
TEC: Technical Expert  
TL: Team Leader  
FIN-EXP: Financial Expert  
DET: Determiner

CDM: Clean Development Mechanism  
VCS : Verified Carbon Standard:  
GS: Gold Standard  
SCS: SocialCarbon Standard  
JI: Joint Implementation

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports



RINA

## CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:  
We declare that Mr/Mrs/Ms:

Rita Valoroso

è qualificato come1:  
is qualified as:

CDM -TEC, -VAL, -VER, -TL  
TECHNICAL REVIEWER

per le seguenti aree tecniche:  
for the following technical areas:

1.2, 13.1

| AREE TECNICHE<br>TECHNICAL AREAS | DESCRIZIONE DELL'AREA TECNICA<br>TECHNICAL AREA DESCRIPTION | SCOPO SETTORIALE<br>SECTORAL SCOPE |
|----------------------------------|-------------------------------------------------------------|------------------------------------|
| 1.2                              | Renewables                                                  | 1                                  |
| 13.1                             | Solid Waste and waste water                                 | 13                                 |

in accordo alle istruzioni della Divisione Certificazione.  
in accordance with the instructions of the Certification Division.

| REVISIONE<br>REVISION | DATA<br>DATE | MOTIVAZIONI PER LA REVISIONE<br>REASON FOR THE REVISION |
|-----------------------|--------------|---------------------------------------------------------|
| 0                     | 18-01-10     | -                                                       |
| 9                     | 22-12-2014   | Update qualification according to AS ver.6.0            |

Il Resp. QPT  
Head of QPT

<sup>1</sup> Legend:

VAL: Validator  
VER: Verifier  
TEC: Technical Expert  
TL: Team Leader  
FIN-EXP: Financial Expert  
DET: Determiner

CDM: Clean Development Mechanism  
VCS : Verified Carbon Standard:  
GS: Gold Standard  
SCS: SocialCarbon Standard  
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RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports