



**Verified Carbon
Standard**

44 MW BUNDLED WIND POWER PROJECT IN MAHARASHTRA MANAGED BY ENERCON INDIA LIMITED



Document Prepared by Earthood Services Private Limited

Project Title	44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India Limited
Version	1.0
Report ID	VCS.VER.23.94

Report Title	Verification Report for 44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India Limited
Client	Wind World (India) Power Development Pvt. Ltd
Pages	41
Date of Issue	29-February-2024

Prepared By	Earthood Services Private Limited
Contact	Emaar Digital Greens, Tower-B, Unit no.- 1203-1205, 12th Floor, Sector-61, Gurgaon- 122011, India Tel: +91 124 4204599 Website: www.earthood.in Email: info@earthood.in
Approved By	Dr. Kaviraj Singh
Work Carried Out By	Team Leader, Verifier and Local Expert: Jinesh Amlani TA Expert (TA 1.2): Jinesh Amlani Trainee Verifier: Sharat Chandra Pullabhotla Technical Reviewer and TA Expert (1.2): Shifali Guleria

Summary:

Earthood Services Private Limited (hereafter referred to as Earthood) has been contracted by Wind World (India) Ltd. to conduct the verification of the project - “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India Limited.”, VCS ID 489 regarding the relevant requirements of VCS programme guidelines and standard (VCS standard version 4.5, & VCS program guide version 4.4). Relevant requirements of the UNFCCC for CDM project activities, as well as criteria for consistent project operations, monitoring and reporting has been applied for verification.

The project activity consists of the installation of 55 WTGs of capacity 800 kW each Satara, Sangli, Nasik, and Ahmednagar Districts. The electricity generated from these windmills is being supplied to Maharashtra State grid which is an integral part of Indian Grid. The equivalent amount of electricity would have been generated through fossil fuel fired power plants connected to Indian Grid resulting in higher GHG emissions in absence of the project activity.

The verification includes confirming the implementation of the monitoring plan of the registered. VCS PD (VCS ID 489) and the application of the monitoring methodology as per ACM0002: Grid-connected electricity generation from renewable sources, Version 17.0.

During the current monitoring period from 01-January-2022 to 31-March-2023 (First and last date included) the project activity has supplied 63,887.59MWh of electricity, and thus contributing to 62,455 tCO₂e of GHG reductions.

The verification consisted of three phases: a. Desk review of the project; b. Follow-up remote. audit; c. Resolution of outstanding issues and issuance of the final verification report and opinion.

The overall verification, from Contract Review to Verification Report & Opinion, was conducted following Earthood internal quality procedures.

A risk-based approach has been followed to perform this verification. During verification, 01 Corrective Action request (CARs), 0 Forward Action request (FARs), and 03 Clarification request (CLs) were raised and successfully closed.

The review of the project description, monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, telephonic interviews and stakeholders have provided Earthood with sufficient evidence to validate the fulfilment of the stated criteria.

Earthood confirms that the project is implemented in accordance with the registered VCS PD/01/ & MR/02/. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the project's GHG emissions, and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the emission reductions from the project activity "44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India Limited" during the period 01-January-2022 to 31-March-2023 (including both days) amount to 62,455 tons of CO₂e

CONTENTS

1	Introduction	6
1.1	Objective	6
1.2	Scope and Criteria	6
1.3	Level of Assurance.....	7
1.4	Summary Description of the Project	7
2	Verification Process	Error! Bookmark not defined.
2.1	Method and Criteria.....	8
2.2	Document Review	9
2.3	Interviews	10
2.4	Site Visits	11
2.4.1	Forward Action Requests	14
2.5	Eligibility for Validation Activities	14
3	Validation Findings	14
3.1	Participation under Other GHG Programs	15
3.2	Methodology Deviations.....	15
3.3	Project Description Deviations.....	15
3.4	Grouped Project	16
4	Verification Findings	16
4.1	Project Implementation Status	16
4.2	Safeguards	17
4.2.1	No Net Harm	18
4.2.2	Local Stakeholder Consultation	18
4.3	AFOLU-Specific Safeguards	18
4.4	Accuracy of GHG Emission Reduction and Removal Calculations	18
4.5	Quality of Evidence to Determine GHG Emission Reductions and Removals	19
4.6	Non-Permanence Risk Analysis.....	32
5	Verification OPINION	32
	Appendix II: Abbreviations	36

Appendix III: Findings Overview	37
Appendix IV: Competency Statements	40

1 INTRODUCTION

1.1 Objective

Earthood Services Private Limited (Earthood) has been contracted by Wind World (India) Power Development Pvt. Ltd, to undertake the seventh verification of the renewable energy project titled “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India Limited.” (VCS ID – 489). The verifiers have reviewed the GHG data collected to date for the monitoring period from 01/01/2022 to 31/03/2023 (including both the dates) covered in this verification. The objective of this verification is a thorough and independent assessment of registered project activities against the applicable VCS requirement by the VVB. The verification process shall determine whether the proposed project activity complies with the requirements of latest VCS guidelines, applicability conditions of the selected methodology, relevant host country regulations and guidance issued by the VCS Board.

1.2 Scope and Criteria

The verification scope of this assignment is defined as an independent and objective review of the VCS Monitoring Report (VCS MR) and supporting annexures, which is reviewed by the assessment team against the relevant criteria and decisions by the VCS Board, including but not limited to, the approved baseline and monitoring methodology, applicable tools, VCS standards and guidance. The assessment team has, based on the recommendations prescribed in the latest version of VCS Verification Manual, employed a risk-based approach, focusing on the identification of significant risks for project implementation and the generation of VCU.

The scope of this assignment is to:

- Conduct verification in accordance with Earthood’s own QMS that is based on the VCS VVM along with the guidance provided by the VCS board to determine if the project meets all applicable VCS requirements, including those specified in the VCS standard/5/, relevant methodology/8/, tools, and guidelines and processing the same with VCS Program Guide /6/.
- Asses the accuracy, conservativeness, relevance, completeness, consistency, and transparency of the information provided by the project proponents.
- Determine whether the information provided by the project proponent is reliable and credible.
- Present information in the form of a verification report in a factual, neutral, coherent manner and referencing the sources and assumptions, other forms of validation mean employed.
- Report the findings and conclusions in an objective manner and conduct all verification in accordance with VCS rules and procedures.

- Apply consistent verification criteria in providing expert judgments to the requirements of applicable approved methodology /8/, tools, and also cross check the same.
- Safeguard the confidentiality of all the information obtained during verification.
- Adhere to the principles of independence, ethical conduct, fair presentation, and due professional care in assessment process.

1.3 Level of Assurance

☐ Limited level of assurance

☒ Reasonable level of assurance

The level of assurance of the verification report falls under reasonable assurance engagement as selected by the client. Reasonable assurance is a high level of assurance regarding material misstatement, but not an absolute one.

Reasonable assurance includes the understanding that there is a remote likelihood that material misstatements will not be prevented or detected on a timely basis. To achieve reasonable assurance, the auditor needs to obtain sufficient appropriate audit evidence to reduce audit risk to an acceptably low level. This means that there is some uncertainty arising from the use of sampling, since it is possible that a material misstatement will be missed.

The evidence used to achieve a reasonable level of assurance is specified in section 2.3 and 2.4 of this report.

1.4 Summary Description of the Project

The project activity involves electricity generation by wind electric convertors and supplying the generated electricity to the integrated Indian grid. The project being a renewable energy generation activity, it leads to removal of fossil fuel dominated electricity generation. The Project activity is located in Kadvekhurd, Bhambarwadi, Panchpatta sites across Satara, Sangli, Nasik, and Ahmednagar Districts in the state of Maharashtra in India. The project activity consists of the installation of 55 WTGs of capacity 800 kW each invested by 29 investors. The electricity generated from these windmills is being supplied to Maharashtra State grid which is integral part of Indian Grid. The information has been verified through the PPA19/ shared by the PP. The aim of the project is to generate cleaner electricity using wind power project and displacing the amount of electricity generated that would have been generated through carbon intensive fossil fuel-based power plant or by addition of new units in the future. The electricity generated through Project Activity is supplied to the regional electricity grid which is a part of Indian Electricity grid. The wind turbine works on the lift and drag principle to produce a positive turning force on the shaft, which results in the rotation movement of the shaft. The mechanical power produced by the rotary movement is converted to electricity by using a generator and a gearbox. The WTGs

can only convert wind energy into electrical energy and hence, do not use any other type of fuel for the same. The equivalent amount of electricity would have been generated through fossil fuel fired power plants connected to Indian Grid resulting in higher GHG emissions in absence of the project activity. Hence generation of power through the project activity contributes to GHG emission reductions. The project activity is already commissioned, and it is found to be running satisfactorily.

The WTGs have been commissioned between 07/02/2006 and 10/12/2008. The same was verified against the registered VCS PD /01/ and subsequent validation report for crediting period renewal/30/. The net electricity supplied by the project activity during the monitoring period is 63887.59 MWh and the emission reductions from the project activity during the period 01/01/2022 to 31/03/2023 (including both days) amount to 62,455 tonnes of CO₂e.

The registered VCS project is undergoing seventh verification under second crediting period, the approach adopted to ensure the quality of emission reduction is described in the following sections.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification of the project consists of two phases:

In the first phase, Earthood completed a strategic review and risk assessment of the projects activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant.
- Protocols used to estimate or measure GHG emissions from these sources.
- Collection and handling of data.
- Controls on the collection and handling of data.
- Means of verifying reported data;
- Compilation of the verification Report.

At the end of this phase, Earthood produced a Verification Checklist which, based on the risk assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

In the second phase using the verification checklist, Earthood verified the implementation of the monitoring plan and the data presented in the VCS MR for the period in question. This involved

remote interview of project proponent representative's and desk review of the monitoring report. The verification report describes the finding of this assessment.

No sampling plan has been adopted by the verification team as all the data related to the Wind Power Plant were presented in the VCS MR/02/ and ER sheet/03/ was reviewed.

2.2 Document Review

The verification is performed as document review of the registered VCS PD/01/ & MR/02/, previous MR and verification report/2,31/ and associated documents as stated in detail in appendix 1 of this document. The assessment is performed by a verification team using a protocol. The cross checks between information provided in the Monitoring report/02/, VCS PD/01/ and information from sources other than those used, if available, the team's sectoral or local expertise and, if necessary, independent background investigations.

Earthood conducted a desk review as under.

- a) A review of the data and information presented to verify their completeness.
- b) A review of the monitoring plan, the monitoring methodology/8/ including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures.
- c) An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions

2.3 Interviews

As per the Section 4.1.12 of the VCS Standard, v4.5/5/, “a site visit that includes a visit to facilities and/ or project areas shall be conducted at verification under the following circumstances: i) The first verification of the project after validation; ii) Verifications that include project baseline reassessments; and iii) Verifications that assess a project description deviation where the deviation impacts the applicability of the methodology, additionality or the appropriateness of the baseline scenario”. Hence it is not mandatory to conduct the on-site visit by VVB for this verification as this is the seventh verification in the second crediting period of the project activity and the project activity does not include any baseline reassessment or deviations a remote audit was deemed appropriate and sufficient to confirm the operations of the plant and other aspects of the project operation. However, the representatives of the PP were interviewed remotely via video conferencing on 06/02/2024 i.e., personnel responsible for monitoring of the project activity, data collection, details of calibration, operation, maintenance and management, and QA/QC procedure. The details of the people interviewed are mentioned in the table below:

Name	Affiliation	Date	Topic covered	Assessment team
Mr. Yogesh Sharma	Operations and Maintenance, General Manager, Wind world India Ltd	06/02/2024	Reliability & accuracy of readings considered for emission reduction calculations.	Jinesh Amlani, Sharat Chandra Pullabhotla
Mr Khandel Rao	Assistant Manager, Panchpatta site Wind World (India) Ltd.		Calibration procedure Monitoring and measuring system.	
Mr Vaibhav Jadhav	Deputy Manager, Khadvekhurd Wind World (India) Ltd.		Collection of measurements	

Mr Vipul Sonawane	Deputy Manager, Karade, Wind World (India) Ltd.		Observations of established practices for Verification of monitoring parameters. Ongoing Local stake holder consultation process	
-------------------	---	--	---	--

2.4 Site Visits

As discussed in the above section, physical site inspection is not done for the current verification. However, to achieve a reasonable level of assurance, the assessment team has followed the alternative means of remote interview via video conferencing on 06/02/2024 with the PP representatives to substantiate the verification criteria as described in the below table:

Assessment Criteria	Means of Verification	Assessment Opinion
Description of project activity	VCS verification report for previous monitoring period and Validation report for crediting period renewal/04//30/ Virtual interviews with site personnel and PPs representatives on 06-02-2024/10/	The information's with reference to project capacity, technology, plant equipment's and commissioning dates as provided in section 1.1 of MR are found consistent with the documents
Compliance of the project implementation with the registered project design document	Monthly shared JMRs/09/ Geographical coordination of project activity verified through google earth. (https://earth.google.com) VCS verification report for previous monitoring period/04/ Virtual interviews with site personal and PPs	Monthly Credit Notes and JMRs issued by DISCOMs indicate the following information: Identification of substation and grid connectivity to which the project is connected, Capacity and name of project investors. Location of project is verified through GPS Map

	representative on 06/02/2024	and found consistent with registered VCS PD. All the information's regarding the project implementation as discuss above are further verified through VCS PD and found consistent in MR.
Compliance of the registered monitoring plan with applied methodologies and standardized baselines	Virtual interviews with site personnel and PPs representatives on 06/02/2024/10/ Monthly shared JMRs/09/ Invoices raised by project developer to respective state utility.	The organizational structure, responsibilities and competencies of the personnel confirmed through telephonic interview. Frequency of monitoring of parameters listed under approved monitoring plan is verified through JMRs /Invoices /09/. The methods used for measuring, recording, storing, aggregating, and reporting the data on monitored parameters are verified though PPA and virtual conversations with site personnel. Procedure for data uncertainty, emergency preparedness, roles and responsibility, operational and management structure are mentioned in the MR /02/ confirmed through quality policy documents and found satisfactory.
Compliance with the calibration frequency	Calibration certificates of meter installed at 8 locations/11/.	Calibration frequency and energy meter specifications (Sr. No, make accuracy class)

requirements for measuring instruments	Central Electricity Authority (Installation and Operation of Meters) Regulations/29/.	is verified through calibration certificates. Responsibility of calibration and maintenance of energy meters is solely under control of MSEDCL; this is verified through the respective PPA
Assessment of data and calculation of emission reductions or net removals	Monthly shared JMRs/09/. CEA CO ₂ Baseline Database for the Indian Power Sector/16/. Previous VCS verification report /04/.	Monthly values of monitoring parameter used in ER calculation are verified through share certificates/JMRs and cross verified with the respective invoices. Methods, formulae and emission factor for calculating baseline emissions have been followed are in accordance with the applied methodology and as described in the approved VCS verification report/04/

It is noteworthy that no sampling plan for verification is applied as 100% data is verified for the current monitoring period. Most of the reference document referred by the assessment team (above table) are either issued /endorsed by the state utility (DISCOMs), an external government agency, hence is deemed authentic.

The assessment team has verified all the primary supporting related to operations, quality, and generation of data during the monitoring period like share certificate issued by Government authority, invoices raised by PP, calibration certificate, video interview with onsite person etc. The photographs were only used as means of secondary cross check of the information verified from Primary sources. Also, this is the fourth monitoring period of the second crediting period. So, the information regarding project capacity commission and monitoring system are already verified in previous monitoring report which are also cross checked with previous report. Thus, a reasonable level of assurance is achieved.

2.4.1 Forward Action Requests

The project activity is undergoing fourth verification in VCS. No FARs are raised during the current monitoring period. There are also no open FARs from previous monitoring reports or validation report applicable for current monitoring period.

Details for which can be checked from Appendix 3 of this verification report.

2.5 Eligibility for Validation Activities

This section is not applicable for present verification.

3 VALIDATION FINDINGS

Not Applicable

3.1 Participation under Other GHG Programs

The project is registered under VCS only (VCS ID –489).

PP has submitted the declaration/07/ which states that the net GHG emission reductions generated by the project activity will not be used for compliance with any other emission trading program or to meet binding limits on GHG emissions for the same monitoring period.

#CAR 01 was raised and resolved.

3.2 Methodology Deviations

There are no methodology deviations identified during the current monitoring period.

3.3 Project Description Deviations

During the current monitoring period, the calibration was not done as per the registered monitoring i.e. 01/01/2022 to 31/03/2023, for the meter numbers 5269382, 16595516 (Elster make, accuracy class 0.2) of Bhambarwadi and Varekarwadi substation. It has been verified through the registered PD/1/ and remote site interviews that Calibrations are not under the purview of the PP and is performed by the MSEDCL Testing Division, which is the authorized body for the meter testing. PP has performed the last calibration on 30/05/2017 and 25/04/2017 respectively for the corresponding meters, which has been confirmed through the calibration certificates and the meters are found to be under the permissible limit and as per the registered PD the calibration frequency is once in five years /01//29/ i.e., 29/05/2022 and 24/04/2022 respectively for each meter and no calibration has been done after the stated dates. As per the VVS standard 3 under the appendix B maximum possible error can be used. Hence, double the error factor i.e. ($\pm 4\%$) has been used as most conservative approach.

3.4 Grouped Project

Not Applicable. The project is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

This is the seventh verification for the project activity. The project activity has been commissioned and is operating satisfactorily. The same has been checked and verified during the remote audit to the project site/10/ and the generation records submitted through monthly credit noted issued by the state nodal agency/9/. The commissioning of all the WTGs have been verified against previous verification and validation report/30//31/, where the commissioning details were checked through commissioning certificates.

The name of investors and their respective capacity are checked with the credit noted and invoices for the project activity and found to be in line with the registered PD and information provided in the MR.

This proposed wind power project will reduce the GHG emissions generated by the current generation energy mix in India's Power Grid, which is dominated by fossil fuel-based grid connected power plants. The power generated through the proposed project activity being supplied to the Maharashtra state electricity grid, which is an integral part of the Indian grid.

The monitoring of the project activity is found to be in accordance with the monitoring methodology described in ACM0002, Version 17/17/. The monitoring mechanism is effective and reliable. During the audit, personnel involved at various levels of the operation of the project activity have been interviewed to confirm that the plant personnel are conscious of the importance of the monitoring activities. The on-site verification of the plant records also substantiate consistency in recording and reporting of monitored data. The required monitoring systems have been installed and are operational. The meters comply with appropriate quality standards applicable for the used technology. The accuracy class of the meters installed for the project activity was verified against the registered VCS PD/01/ and VCS MR/02/. There was no major breakdown or shutdowns during the monitoring period which might affect the applicability of methodology or might cause material errors in emission reductions, which has been checked through the shutdown records/26/ shared by the PP.

The monitoring plan of registered VCS PD/01/ includes the parameter.

- Quantity of net electricity generation supplied by the project plant/unit to the grid in year y ($EG_{y,net}$)
- Quantity of electricity exported by the Project to the grid in year y ($EG_{export,y}$)
- Quantity of electricity imported by the Project from the grid in year y ($EG_{import,y}$)

Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as:

$$EG_{y,net} = (EG_{export,y} - EG_{import,y})$$

Electricity exported and imported by the project activity being measured by energy meters of accuracy class 0.2s located at the substations. These parameters are measured continuously and follows at least monthly recording. This is in line with methodology and is accepted.

Monthly values of $EG_{y,net}$ are obtained directly from the monthly credit notes issued by state utility (MSEDCL)/09/. The invoicing being done against electricity supplied by the project plant to the grid. The measurement results are cross checked with records of invoices, and it is in line with applied methodology. Thus, this parameter is considered in emission reduction calculations.

Joint Meter Reading is being taken jointly by the officials of state utility and project participant's representative on monthly basis and accordingly monthly credit notes is being prepared for each project investor/proponent. The monitoring methodology applies consistently the choice of the option selected for monitoring of baseline emissions. The monitoring plan provides procedures for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary.

The VCS MR/02/ has been reviewed to check that the procedure for data uncertainty, emergency preparedness, roles and responsibility, operational and management structure are mentioned in the MR. The monitoring plan completely describes all measures to be implemented for monitoring all parameters required. The monitoring plan described the positioning of the equipment. The information relating to the project implementation, provided in the Monitoring Report /03/ is consistent with that stated in the registered PD /01/. The data and variables provided in the monitoring report are the same as stated in the registered PD/01/. These details are also checked with actual implementation and monitoring procedures on site and found appropriate. Total emission reductions achieved under this monitoring period 01-January-2022 to 31-March-2023 (including both days) is 62,455 tCO₂e.

Assessment team concludes the following:

- a) There are no material discrepancies between project implementation and the project description provided in the registered PD/01/.
- b) The monitoring plan is implemented completely and monitoring system (i.e., process and schedule for obtaining, recording, compiling, and analysing the monitored data and parameters) is appropriate.
- c) There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology/08/.
- d) The GHG emission reductions or removals generated by the project have not included in an emissions trading program or any other mechanism of environmental credits that include GHG allowance trading/07/.
- e) The project has not participated or been rejected under any other GHG programs since validation or previous verification.

4.2 Safeguards

4.2.1 No Net Harm

This project activity does not involve any negative environmental or socio-economic impacts, as the project activity involves generation of wind energy which is clean source of energy. Hence, no mitigation measures are required.

4.2.2 Local Stakeholder Consultation

The project activity is undergoing its seventh verification and local stakeholder consultation was appropriately conducted prior to validation as a way to inform the design of the project and maximize participation from stakeholders during the validation.

The project proponent has also established a mechanism for continuous stakeholder interaction and considering the grievance from local stakeholders on ongoing basis. The details for the same are provided under section 2.2 of the MR and verified during interviews of remote audit and grievance register/28/ maintained at site.

4.3 AFOLU-Specific Safeguards

Not applicable for this project activity.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The project monitoring has been carried in accordance with the registered VCS PD/01/ and the monitoring report/02/. The monitoring plan laid in the registered PD/01/ is being followed at the site. The assessment team has verified the information flow (from data generation, aggregation, to recording, calculation and reporting for these parameters including the values) in the MR/02/.

The emission reductions are purely based on the net electricity generated and exported from the machines. PP has provided all the sufficient data for current monitoring period. The values of the parameter $EG_{y,net}$ used in deriving the GHG emission reduction could be very well correlated between the data sets and ER spreadsheet/03/ provided by PP. The net electricity to the grid (EG_y) by the project activity measured by state utility on monthly basis through dedicated metering system installed at site and recorded in the monthly credit notes provided to project proponents. Verification team has verified the monthly values of parameter ($EG_{y,net}$) as reported in the ER sheet with the source document (credit notes) and no discrepancy is observed, hence it can be confirmed that no manual transposition errors between data sets have been occurred. The verification of each monitoring parameter has been discussed later in section 4.5.

The calculation method and formulae used in calculating baseline emission is in compliance to the methodology used i.e., ACM0002 version 17.0/08/ and registered PD/01/. Since project activity is a wind power project, leakage emission and project emission has been considered as zero.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The below tables describe how the parameter, that is to be measured according to the monitoring plan, has been verified to confirm that the actual monitoring complies with the monitoring plan, monitoring data has been thoroughly assessed and that the calibration requirements are met.

Parameter 1: Net electricity supplied to the grid by the project $EG_{y,net}$ (MWh)

Means of verification		
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. Net electricity supplied to the grid by the project is calculated as: $EG_{y,net} = (EG_{\text{export}} - EG_{\text{import}})$ Where, EG_{export} = Electricity exported to the grid by the project activity EG_{import} = Electricity imported from the grid by the project activity
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/08/.
	Monitoring equipment	The net electricity supplied to the grid is calculated based on the electricity exported to the grid and imported from the grid. the electricity exported and imported are measured parameters and continuously monitored through energy meters. Energy meters of Elster make accuracy class of 0.2s are used, (Calibration details of meter is provided

		separately in this section, under the heading “Calibration of meters”) Thus, calculated net electricity supplied to the grid is issued to the project proponent/investors in form of Credit notes for every month, which is the primary source of record.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer’s specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate EG_{export} and EG_{import} is 0.2s, which is as per the registered PD/01/ which is as per the norm defined in the CEA regulation/29/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment’s is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency for energy meters used to measure input values of export and import is once in five years.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, pending until the findings are closed or as per the manufacturer’s specifications?	There is a delay in the calibration frequency for the with the monitoring plan for the meters 5269382 and 16595516 of elster make and accuracy class 0.2 in Varekarwadi and Bhambarwadi sites as outlined in the registered PD/01/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes, the calibration is conducted by state utility which is authorised government agency to conduct the same as per PPA.

	Is(are) calibration(s) valid for the whole reporting period?	Yes, the calibration is valid for entire monitoring period.
	How were the values in the monitoring report verified?	The values in the monitoring report were verified from the monthly Credite Notes /09/. Final value of net electricity supplied to the grid by the project activity is verified as: 63887.59 MWh
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG _y were further cross checked with the monthly invoices raised by the PP/07/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data ensure correct transfer of data and reporting of emission reductions management. QA/QC processes are in place.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	CL#01 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The verification team can confirm that the project is implemented as per the registered PD and there is no discrepancy observed between the actual monitoring system and the monitoring plan set out in the registered PD and the applied methodology.	

	The emission reduction calculation for the project activity is estimated based on the electricity supplied by the WTGs. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.
--	---

Parameter 2: Electricity imported from the grid by the project activity in year y. EG_{export} , (MWh)

Means of verification		
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter export to the grid is continuously measured by the electricity meters installed at the feeders of various substations of the project activity and recorded on monthly basis, The meters installed are tri-vector, bi-directional meters and both electricity export and import by the project activity are measured through the same meters. Thus, verification details for both the parameters are same.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/08/.
	Monitoring equipment	Energy meters of Elster make ,accuracy class of 0.2s are used , (Calibration details of meter is provided separately in this section, under the heading "Calibration of meters")
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring	The accuracy of the energy meters is 0.2s, which is as per the registered PD/01/ which is as per the norm defined by the CEA/29/.

	plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years as per the permanent deviation considered by the PP.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, pending untill the findings are closed or as per the manufacturer's specifications?	There is a delay in the calibration frequency for the with the monitoring plan for the meters 5269382 and 16595516 of elster make and accuracy class 0.2 in Varekarwadi and Bhambarwadi sites as outlined in the registered PD/01/. The details of which has been discussed below in this report.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes, the calibration is conducted by state utility which is authorised government agency to conduct the same as per PPA.

	Is(are) calibration(s) valid for the whole reporting period?	Yes, the calibration is valid for entire monitoring period.
	How were the values in the monitoring report verified?	The values in the monitoring report were verified from the monthly Credit Notes issued /09/. Verified value of the Electricity exported to the grid by the project activity during the monitoring period is verified as: 64033.91 MWh
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of export and export were further cross checked with the monthly invoices raised by the PP/09/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data ensure correct transfer of data and reporting of emission reductions management. QA/QC processes are in place.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	Not Applicable
Findings	CL#01 was raised and resolved	
Conclusion	These parameters have been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be	

	applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The verification team is able to confirm that the project is implemented as per the registered PD and there is no discrepancy observed between the actual monitoring system and the monitoring plan set out in the registered PD and the applied methodology. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the WTGs. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.
--	---

Parameter 3: Electricity exported to the grid by the project activity in year y, EG_{import} , (MWh)

Means of verification		
	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter for import from the grid are continuously measured by the electricity meters installed at the feeders of various substations of the project activity and recorded on monthly basis, The meters installed are tr-vector, bi-directional meters and both electricity export and import by the project activity are measured through the same meters. Thus, verification details for both the parameters are same.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/08/.
	Monitoring equipment	Energy meters of Elster make ,accuracy class of 0.2s are used , (Calibration details of meter is provided separately in this section, under the heading "Calibration of meters")

	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the energy meters is 0.2s, which is as per the registered PD/01/ which is as per the norm defined by the CEA/29/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years as per the permanent deviation considered by the PP.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, pending untill the findings are closed or as per the	There is a delay in the calibration frequency for the with the monitoring plan for the meters 5269382 and 16595516 of elster make and accuracy class 0.2 in Varekarwadi and Bhambarwadi sites as outlined in the registered PD/01/. The details of which has been discussed below in this report.

	manufacturer's specifications?	
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes, the calibration is conducted by state utility which is authorised government agency to conduct the same as per PPA.
	Is(are) calibration(s) valid for the whole reporting period?	Yes, the calibration is valid for entire monitoring period.
	How were the values in the monitoring report verified?	The values in the monitoring report were verified from the monthly Credit Notes issued /09/. Verified value of the Electricity imported from the grid by the project activity during the monitoring period is verified as: 80.51 MWh .
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of export and export were further cross checked with the monthly invoices raised by the PP/09/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the data ensure correct transfer of data and reporting of emission reductions management. QA/QC processes are in place.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been	Not Applicable

	estimated as stipulated by Appendix 1 to the CDM Project Standard?	
Findings	CL#01 was raised and resolved	
Conclusion	These parameters have been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The verification team is able to confirm that the project is implemented as per the registered PD and there is no discrepancy observed between the actual monitoring system and the monitoring plan set out in the registered PD and the applied methodology. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the WTGs. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

Parameters fixed ex ante:

Sr. No.	Parameter	Value	Assessment team remark
1.	$EF_{grid,OM,y}$	0.9941	These values are considered from the national CEA database of India and validated in the registered VCS PD. The values are appropriately considered as per the registered VCS PD. CEA database, Version 11, April 2016 (http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver11.pdf)
2.	$EF_{grid,BM,y}$	0.9285	
3.	$EF_{grid,CM,y}$	0.9777	

The energy meters installed at respective sub-stations are of accuracy class 0.2s as verified through the calibration certificates/11/. The installation and working conditions of the meters were checked through calibration certificates, JMRs and the remote site visit conducted on 06-February-2024 and were found to be satisfactory. Details of meters are provided in below table.

Substation Name	Feeder No.	Project activity WTG connected	Meter Serial No.	Calibration dates	Next due date for calibration
Kadvekhurd	Single feeder	7 WTGs, 5.6 MW	4760188(old meter)	27/12/2018	26/12/2023
			02888876(new meter)		
Varekarwadi	Feeder- 1	2 WTGs, 1.6 MW	5269382	30/05/2017	29/05/2022
Bhambarwadi	Feeder-1	5 WTGs, 4 MW	16595516	25/04/2017	23/04/2022
	Feeder-3	13 WTGs, 10.4 MW	4862747 (old)	25/04/2018	24/04/2023
			2843250 (new)		
Panchpatta	Feeder-1	11 WTGs, 8.8 MW	14831531	23/03/2022	22/03/2027
	Feeder-4	6 WTGs 4.8 MW	14831520	23/03/2022	22/03/2027
	Feeder-5	2 WTGs, 1.6 MW	14831522	22/03/2027	22/03/2027
	Feeder-6	9 WTGS, 7.2 MW	14831533	23/03/2022	22/03/2027

#CL02 ,#CL03 were raised and resolved

It is evident from the above table that calibration of the meters was valid during the current monitoring period, although there was a delay in calibration was identified for the meters 5269382 and 16595516 for Varekarwadi and Bhambarwadi respectively. The meters were last calibrated on 30/05/2017 and 25/04/2017, with the calibration valid (as per the registered PD) until 29/05/2022 and 23/04/2022 respectively and no further calibration has been conducted. Hence, there is delay of 10 and 11 months respectively sites. PP has applied the error factor of 0.8% in net electricity generation, which is found to be conservative, and in line with the Appendix 'Calibration' of VVS for PA/11/. PP has applied for the project description deviation, details of which has been mentioned in section 3.3 of this report. The accuracy classes of 0.2s for the energy meters installed at the project activity site are found to be appropriate.

In view of the above discussion the assessment team able to confirm that evidence used to determine the GHG reductions and removals are sufficient and appropriate with respect to quality and quantity.

GHG Calculations:

The emission reduction as per the applied methodology equals the baseline emissions (project emissions and leakage emissions for such project activities is considered zero). The formula provided for the calculation of baseline emissions is:

$$BE_y = EG_{BLY} * EF_{CO2,grid,y}$$

Where:

BE_y : Baseline emissions in year y (t_{CO2e}/yr)

EG_{BLY} is the quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)

$EF_{CO2, grid,y}$ is the CO_2 Grid Emission Factor in t_{CO2e}/MWh

Therefore, the baseline emissions = $63,887.59 * 0.9777 t_{CO2e}/MWh$

$$= 62,455 t_{CO2e}$$

The calculation of the net emission reduction achieved is done using the equation provided below:

$$Net\ Emission\ reduction,\ E_{Ry} = BE_y - PE_y - LE_y$$

Where,

BE_y is baseline emissions in year y (t_{CO2e})

PE_y are project emissions in year y (t_{CO2e})

LE_y are leakage emissions in year y (t_{CO2e})

As per the applied methodology and registered VCS PD, the values of the $PE_y = 0$ and $LE_y = 0$,

Therefore,

Net Emission Reductions= $BE_y - PE_y - LE_y$

Net Emission Reductions= 62455 -0-0

= 62455 tCO₂e

The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations are justified. There is a difference of -33.5 % (downside) between the actual emission reduction achieved and the amount estimated ex ante for this monitoring period. The generation data is in low trend due to wind cyclic patterns and cyclic weather patterns which are varying time to time.

All the data were made available and have monitored as per required monitoring frequency. The means of verification for the values of parameters, used for baseline emission calculation, is described above.

4.6 Non-Permanence Risk Analysis

Not applicable for the project activity.

5 VERIFICATION OPINION

Earthood Services Private Limited (Earthood) contracted by Wind World (India) Power Development Pvt. Ltd, to perform the independent verification of the emission reductions for the VCS project activity “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India Limited”, (VCS ID – 489) for the monitoring period 01/01/2022 to 31/03/2023 as reported in the Monitoring report version 1.2 dated 18-February-2024. The Wind World (India) Power Development Pvt. Ltd is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity. Earthood commenced the verification based on the baseline and monitoring methodology ACM0002, version 17/08/.

Earthood's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions reported for the project activity for the period 01/01/2022 to 31/03/2023 (including both the dates) are fairly stated in the monitoring report version 1.2 dated 18/02/2024. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology ACM0002, Version 17.0 /08/ and the VCS standard version 4.5/5/.

Verification period: From 01/01/2022 to 31/03/2023

Verified GHG emission reductions and removals in the above verification period, broken down by calendar year:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01-January-2022 to 31-December-2022	52,883	0	0	52,883
01-January-2023 to 31-March-2023	9,572	0	0	9,572
Total	62,455	0	0	62,455

Approved by



Dr. Kaviraj Singh

Managing Director

Earthood Services Privated Limited

Date: 29-02-2024

Place: Gurugram, Haryana

APPENDIX I: DOCUMENT REFERENCES

S. No	Title of documents	Version	Date
1.	Registered PD https://registry.terra.org/app/projectDetail/VCS/489 .	03	01/02/2017
2.	Monitoring Report	1.2	18/02/2024
3.	ER sheet (corresponding to final monitoring report)	Pertaining to latest MR	
4.	Previous Verification Report for the project activity Available at Verra registry for project activity page: https://registry.terra.org/app/projectDetail/VCS/489 .	02	13/12/2022
5.	VCS standard https://verra.org/wp-content/uploads/2022/06/VCS-Standard_v4.5.pdf	4.5	-
6.	VCS program guide https://verra.org/wp-content/uploads/2022/06/VCS-Program-Guide-v4.4.pdf	4.4	-
7.	Letter of declaration from PP regarding not having created or sought any other form of environmental credits for the same period	-	-
8.	ACM0002: Grid-connected electricity generation from renewable sources.	17.0	-
9.	Monthly JMR and invoices, credit notes	-	01/01/2022-31/03/2023
10.	Remote audit and interviews conducted for the project monitoring period	-	06/02/2024
11.	Calibration certificates for all the meters	-	Various Dates
12.	Operations shutdown details	-	01/01/2022-31/03/2023
13.	VCS webpage for the project, VCS ID 489. https://registry.terra.org/app/projectDetail/VCS/489 .	-	-
14.	Tool to calculate the emission factor for an electricity system	5.0	-

15.	Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period	03.0.1,	-
16.	CEA Database: CEA CO2 Baseline Database for the Indian Power Sector, version 11 http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver11.pdf	11	
17.	“Grid-connected electricity generation from renewable sources”, ACM0002”	17.0	
18.	Stakeholder’s consultation	-	05/08/2007
19.	PPA Agreement	-	-
20	Google earth locations https://earth.google.com/web/search/N+17%2c2%b033%e2%80%9915%e2%80%9d,+E+73%2c2%b055%e2%80%9928%e2%80%9d/@17.5541667,73.9244444,1063.3122979a,801.39757832d,35y,0h,0t,0r/data=CmMaORlZGUEIb d7djTFAIRo-2Bgqe1JAKh9OIDE3wrAzM-KAmTE14oCdLCBFIDczwrA1NeKAmTI4GAIGASImCiQJTQyGC GzSH0ARAAoUjgdnMH0AZ9I272LJj8L8hQpul - KX8L86AwoBMA	-	09/10/2023
21	Technical specifications of wind turbines	-	-
22	Manufacturer’s Specifications	-	-
23	SCADA System	-	-
24	Employment details	-	01/01/2022-31/03/2023
25	Maintenance records	-	01/01/2022-31/03/2023
26	Shut down details	-	01/01/2022-31/03/2023
27	Training Records	-	01/01/2022-31/03/2023
28	Copy of grievance register maintained at project site office for ongoing local stakeholder feedback	-	-
29	Central Electricity Authority (Installation and Operation of Meters) Regulations Notified on 17/03/2006 No. 502/70/CEA/DP&D Amendments Notified on 26/06/2010 No. 502/6/2009/DP&D/D-I https://cea.nic.in/wp-content/uploads/2020/02/meter_reg.pdf	-	-

30	Validation report for crediting period renewal	02	22/02/2017
31	sixth monitoring period verification report https://registry.terra.org/app/projectDetail/VCS/489 .	01.3	06/08/2021

APPENDIX II: ABBREVIATIONS

Abbreviations	Full texts
ABT	Availability Based Tariff
BEF	Baseline Emission Factor
BM	Build Margin
CAR	Corrective Action Request
CL	Clarification Request
CMS	Central Monitoring System
CMP	Conference of Parties Serving as Meeting of Parties
CO ₂	Carbon dioxide
DISCOM	Distribution Company (electricity)
EB	Executive Board
EPC	Engineering, Procurement and Construction
FAR	Forward Action Request
GHG	Green House Gas
ISO	International Standards Organization
JMR	Joint Meter Reading
kW	Kilowatt
kWh	Kilowatt hour
MFR	Multi-Function Relay
MR	Monitoring Report
MW	Megawatt
MWh	Megawatt-hour
O&M	Operation and Maintenance
PD	Project Description
PLF	Plant Load Factor

PP	Project Proponent
PPA	Power Purchase Agreement
QA/QC	Quality Assurance and Quality Control
TOD	Time of the Day
UNFCCC	United Nations Framework Convention on Climate Change
WEC	Wind Energy Converter
WEG	Wind Energy Generator
WTG	Wind Turbine Generator
VCS	Verified Carbon Standard
VCSA	Verified Carbon Standard Association
VCS PD	VCS Project Description
VCUs	Verified Carbon Units
MSEDCL	Maharashtra state electricity distribution company limited

APPENDIX III: FINDINGS OVERVIEW

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	01	Section no.	XX	Date : DD/MM/YYYY
Description of FAR				
XX				
Project participant response				Date : DD/MM/YYYY
XX				
Documentation provided by project participant				
XX				
DOE assessment				Date: DD/MM/YYYY
XX				

e.g., There is no finding from validation /XX/ or previous verification report/XX/.

Table 2. CL from this verification

CL ID	01	Section no.	4.5	Date : 07/02/2024
Description of CL				
Under the section 4.2 “Data and Parameters Monitored” of MR, It has been observed that the value of parameter EG_{import} is greater than the value of parameter EG_{export} MR. The same has also been observed in the ER sheet, Tab: “Generation Data”. PP is requested to clarify how the electricity import value is greater than electricity export value and make changes in the ER Sheet and MR accordingly.				

Project participant response	Date : 18/02/2024
In the generation statements of Maharashtra state, the value of import is considered as the amount of electricity supplied to the state electricity board and the Export value is considered as the electricity consumed from the grid. PP has modified the MR and ER accordingly and have considered import values in EG(import) and export values in EG(import)	
Documentation provided by project participant	
Updated ER,MR.	
VVB assessment	Date: 20/02/2024
Under the section 4.2 “Data and Parameters Monitored” of MR, the PP has changed the EG _{import} and EG _{export} values and found to be consistent as per the credit notes provided /9/, the same has also been updated in the ER sheet under generation tab. Hence, CL#01 is closed	

CL ID	02	Section no.	4.5	Date : 07/02/2024
Description of CL				
In MR, Appendix 1, It has been observed that the calibration dates of Customers Name: G.B. Rubber Products to J.P.Patel are inconsistent with the evidence provided for calibration. The PP is requested to clarify the discrepancy between the date of calibrations.				
Project participant response				Date : 18/02/2024
PP has updated the MR according to the calibration reports provided.				
Documentation provided by project participant				Date : 18/02/2024
Updated MR				
VVB assessment				Date: 20/02/2024
Under the Appendix 1, It has been observed that Last calibration dates have been updated and found to be consistent as per the calibration reports provided. Although, for Varekarwadi F-1 and Bhambarwadi F-1 site the calibration dates are not covering the entire monitoring period but in ER sheet, the PP has used an error factor for conservative approach as per the VVS standard 3 under Appendix B “An electricity energy meter with a maximum permissible error ($\pm 5\%$), which may be used. for measuring the electricity export for baseline emissions and electricity import for project emission calculations, is required to be calibrated every year. If the calibration is delayed and instead of one year it is conducted after one and half year and the result of the delayed. calibration is available at the time of verification, to account for the delayed calibration the measured values shall be corrected as demonstrated in the following table (1) and (2) for situations stipulated in paragraph 268(a) and (b) respectively for the entire verification period.”. Hence, the CL#02 is closed				

CL ID	03	Section no.	4.5	Date : 07/02/2024
Description of CL				
It has been observed through the JMRs and the calibration report provided that the meter with serial number 4862747 has been replaced with new meter with serial number 2843247 for Bhambarwadi site LOC numbers :47,50,51,52,53,54,55,56,57,58 in 2018. However, serial number of old meters has been written. The PP is requested to clarify.				

Project participant response	Date : 18/02/2024
<i>The PP has updated the meter serial numbers after verifying the calibration reports</i>	
Documentation provided by project participant	
<i>Updated MR.</i>	
VVB assessment	Date: 20/02/2024
Under the Appendix 1, The PP has updated the new meter details as per the calibration reports. Hence, CL #03 is closed.	

Table 3. CAR from this verification

CAR ID	01	Section no.	3.1	Date : 07/02/2024
Description of CAR				
Under sections 1.9 and 1.10 i.e. Participation under other GHG Programs and Other Forms of Credit and Supply Chain (Scope 3) Emissions respectively. No proper explanation has been given, only “NA” has been mentioned. The PP is requested to update as per the VCS template guideline 4.2.				
Project participant response				Date : 18/02/2024
PP has updated the section 1.9 and 1.10 according to the VCS template guideline version 4.2.				
Documentation provided by project participant				
<i>Updated MR.</i>				
VVB assessment				Date: 20/02/2024
The PP has provided the explanation under 1.9 and 1.10 stating that “ the project activity , the explanation was found to be justified making it inline with VCS template 4.2 .Hence, finding is closed				

Table 4. FAR from this verification

FAR ID	XX	Section No.	XX	Date : DD/MM/YYYY
Description of FAR				
XX				
Project participant response				Date : DD/MM/YYYY
XX				

Documentation provided by project participant	
XX	
DOE assessment	Date: DD/MM/YYYY
XX	

APPENDIX IV: COMPETENCY STATEMENTS

Competence Statement			
Name	Jinesh Amlani		
Education	M.Sc. Energy Systems B.Sc. Physics		
Experience	8+ years		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES (VM)		
Validator	YES		
Verifier	YES		
Methodology Expert	NO		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	YES (TA 1.2)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	09/08/2023
Approved by	Deepika Mahala (Technical Manager)	Date	09/08/2023

Competence Statement	
Name	Sharat Chandra Pullabhotla
Education	B.Tech, Mechanical Engineering

Experience	01 year		
Field	Automotive research and development, Climate change		
Approved Roles			
Team Leader	NO		
Validator	NO		
Verifier	NO		
Methodology Expert	NO		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Trainee	YES		
Reviewed by	Shifali Guleria (Quality Manager)	Date	04/01/2024
Approved by	Deepika Mahala (Technical Manager)	Date	04/01/2024

Competence Statement	
Name	Shifali Guleria
Education	M.Sc. (Environmental Studies and Resource Management), TERI University
Experience	3+ year
Field	Climate Change
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES
Methodology Expert	YES (AMS-I.A., AMS-II.G., AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002)
Local expert	YES
Financial Expert	NO
Technical Reviewer	YES
TA Expert	YES (1.2, 3.1)

Reviewed by	Deepika Mahala	Date	16/02/2022
Approved by	Ashok Gautam	Date	18/02/2022