



CHAKALA WIND POWER PROJECT IN MAHARASHTRA



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Summary:

Earthood has performed the third verification of the VCS project “Chakala wind power project in Maharashtra” (VCS Ref. Number 1197). During the current verification, PP have chosen the monitoring period from 01-June-2018 to 31-March-2020 (including both days).

The objective of this verification activity is to have an independent third party assessment of the project design, actual ER sheet and to ensure a thorough assessment of the implementation of project activity against the applicable CDM and VCS requirements.

The scope of verification includes confirming the implementation of the monitoring plan of the registered VCS PD/1/, and the application of the monitoring methodology ACM0002 version 13.0.0/7/.

The verification consisted of three phases:

- i) desk review of the project;
- ii) follow-up onsite visit and interviews with project stakeholders;
- iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

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

Bindu Vayu Urja Private Limited (BVUPL) is an independent power producer in India. BVUPL has installed 26 MW wind power project consisting total 26 turbines of 1.5 MW each in Chakala Village in the state

of Maharashtra. The Project activity fed generated power to the NEWNE grid (now Indian Grid) which helps in reducing the supply demand gap in the state. Being renewable power, using zero emissions helps to reduce GHG emissions and pollutants like SO_x, NO_x, and SPM emitted in the conventional thermal power generation facilities.

A risk-based approach has been followed to perform this verification activity and No uncertainties associated with the verification. During the verification process 05 CARs, 00 CL and 00 FARs were raised and are discussed in detail in Appendix 4 of this report. The review of the Monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews with project owners have provided ESPL with sufficient evidence to verify the fulfilment of the stated criteria of VCS. ESPL confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements.

Therefore, the emission reductions from the project activity “Chakala wind power project in Maharashtra” in India during this verification period 01-June-2018 to 31-March-2020 (including both days) could be verified as below:

Vintage wise representation of the emission reductions is as follows:

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-June-2018 to 31-December-2018	45,230	0	0	45,230
01-January-2019 to 31-December-2019	68,888	0	0	68,888
01-January-2020 to 31-March-2020	6,375	0	0	6,375
Total	120,493	0	0	120,493

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1 INTRODUCTION

1.1 Objective

Bindu Vayu Urja Private Limited (BVUPL) has commissioned Earthood Services Private Limited (Earthood) to perform third VCS verification of the “Chakala wind power project in Maharashtra” (hereafter called project) for the monitoring period 01-June-2018 to 31-March-2020 (including both days) with VCS Ref number 1197¹. The objective of this verification is a thorough and independent verification for the emission reductions reported for “Chakala wind power project in Maharashtra” and managed by Bindu Vayu Urja Private Limited (BVUPL).

This is third periodic verification is the independent review and ex post determination by Earthood Services Private Limited of the monitored reductions in GHG emissions that have occurred as a result of the registered VCS project activity “Chakala wind power project in Maharashtra” during a defined monitoring period 01-June-2018 to 31-March-2020 (including both days). Certification is the written assurance by Earthood that, during a specific period in time, a project activity achieved the emission reductions 120,493 tCO₂e as verified.

1.2 Scope and Criteria

The scope of the verification is to establish/verify that:

- the appropriate VCS-MR form (and other templates) was used and correctly filled up /22/;
- the project activity is in accordance with all relevant host country criteria (India);
- the project activity is in accordance with all relevant VCS rules and requirements/13/&/14/;
- the project activity is in accordance with conditions of the latest version of applied methodology ACM0002 version 13.0.0/7/-

The verification of the project activity is based on the VCS-PD and estimated GHG emission reduction calculations.

1.3 Level of Assurance

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. No sampling procedure applied for site visit or document verifications. The entire documents were checked/Power plant verification conducted to arrive at positive verification conclusions. Thus, 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.

1.4 Summary Description of the Project

Bindu Vayu Urja Private Limited (BVUPL) is an independent power producer in India. MVPPL has installed 39 MW wind power project consisting total 26 turbines of 1.5 MW each in Chakala Village in the state of Maharashtra . The Project activity feed generated power to the NEWNE Grid (Now INDIAN grid) which helps in reducing the supply demand gap in the state. Being renewable power, using zero emissions helps to reduce GHG emissions and pollutants like SO_x, NO_x, and SPM emitted in the conventional thermal power generation facilities. Based on the interview with PP representatives/9/ and document review/6/,/10/&/11/, it was observed that the project activity is implemented in line with the VCS PD/1/.

Assessment team checked the Commissioning of all the WTGs via the commissioning Certificates/10/and found correct.

The wind power project is located in Chakala Village in the state of Maharashtra, India. The geo- coordinates of the project location are as follows along with commissioning dates are provided in Section 4.1 of this report.

The technology employed, is environment friendly since there are no GHG emissions associated with the electricity generation/9/.

Duration of this VCS periodic verification of the project activity is from 01-June-2018 to 31-March-2020 (inclusive both days) and total emission reductions achieved during this monitoring period is 120,493 tCO₂e.

The commissioning details of the WTGs mentioned in MR/2/ was verified from the commissioning certificates/10/ provided by the PP.

Technical description was found to be consistent with the site photographs/9/ and registered VCS PD/1/.

¹<https://registry.terra.org/app/projectDetail/VCS/1197>

2 VERIFICATION PROCESS

2.1 Method and Criteria

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

The Project was verified against the latest requirements and guidance set out in VCS/13/ and CDM standards/19/.

The Verification process consists of the following three phases;

- A document review of the VCS PD and VCS MR (described in Section 2.2) of this report
- Remote Audit and follow up interviews with project stakeholders (described in Section 2.3 and 2.4 of this report)
- The resolution of outstanding issues and issuance of the final report and opinion. (described in Section 2.5 of this report)

No sampling approach has been applied by the verification team as all the monthly reported figures in the MR/2/ and the ER sheet/3/ were checked from the actual records/6/.

2.2 Document Review

The verification is performed primarily as a document review of the documents submitted at various stages of assessments. The review is performed by assessment team using dedicated protocols. The assessment team cross checks the information provided in the documents (PDD, MR, validation report) and information from sources other than those used, if available, and also conducts 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 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

A remote audit was conducted for the project activity on 19-June-2020. No sampling procedures were adopted either in document verification. Remote Audit was conducted due to pandemic situation of COVID-19, and technical details & metering/monitoring arrangement has been verified through site photographs/name plate/9/and calibration certificates/4/shared by PP. The same is also verified by the previous verification report/20/. These documents were cross checked to ensure conservative estimation of emission reduction.

During the remote audit, the PP representatives were questioned about the implementation of the project activity/9/. Several topics like the verification of calibration date of meters, the generation, recording, and monitoring of the data, grievance mechanism and the error accountability were discussed. To cross check the information provided by PP, various documents like technical specifications/24/, commissioning certificates/10/, PPA/11/, JMR sheets/6/, invoices/5/, calibration certificates/4/, Feedback/grievance register/17/ etc. were also verified. The entire list of documents reviewed for the purpose of verification is provided in Appendix 1 of this report. The names of the persons interviewed (during remote Audits through Skype/telephonic interview/9/ is given below

Organization	Name of Persons/Designation	Topics discussed	Team Member
Bindu Vayu Urja Private Limited (BVUPL)	Mr. Kiran Choudhary Site Incharge	Project Implementation, Operation & Management, Monitoring practices, JMR, Calibration requirements, Grievance mechanism etc. Data collection, data storage, QA/QC	Dr. Atul Takarkhede
EKI Energy	Ms. Anjali Rao EKI Energy	GHG calculations, MR and ER preparation,	

2.4 Site Inspections

Duration of on-site inspection: NA				
No.	Activity performed on-site	Site location	Date	Team member
1.	NA	NA	NA	NA

The verification team could not perform on-site inspection due to the ongoing COVID-19 pandemic in the entire state of India. Taking into account the rules of relevant national and local authorities (local to the DOE's office as well as to locality of the site visits), World Health Organization's (WHO) recommendations, policies of the DOE and other relevant travel restrictions and guidance (for example, a requirement to self-isolate upon return),

The country was under lock down from 25-March-2020 to 30-June-2020 as per Ministry of Home Affairs order/25/,/26/,/27/,/28/ & /29/. All domestic & International travel, passenger movement by trains, interstate buses for public transport, movement by individuals were prohibited/controlled by state governments. Hence, onsite visit was not feasible²/30/. Also due to increasing COVID 19 patients, entry to the Nandurbar district was restricted³/31/.

Furthermore, The VCS Program does not explicitly mandate site visits as part of the validation and verification process, only that VVBs must achieve a reasonable level of assurance on all validations and verifications (per Section 4.1.2 of the VCS Standard, v4.0/13/). However, The DOE has taken alternative measure to reach reasonable level of assurance and conducted Remote Audit through Skype/9/ on 19-June-2020 (refer section 2.3 of this report) with the site personals & consultant to check the design, implementation and monitoring of the project activity.

A remote audit was conducted by the assessment team (Dr. Atul Takarkhede) on 19-June-2020 to carry out the following;

- a. An assessment of the implementation and operation of the registered project activity as per the registered PD or any approved revised PD/1/ and MR/2/;
- b. A review of information flow for generating, aggregating and reporting the monitoring parameters;
- c. Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PD/1/;
- d. A cross-check between information provided in the monitoring report and data from other sources such as JMR sheets/6/, invoice /5/, PPA/11/. O&M agreement/18/ etc.;

² <https://cdn.s3waas.gov.in/s3db85e2590b6109813dafa101ceb2faeb/uploads/2020/06/2020061690.pdf>

³ <https://cdn.s3waas.gov.in/s3db85e2590b6109813dafa101ceb2faeb/uploads/2020/06/2020061647.pdf>

- e. A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PD/1/ the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
- f. A review of calculations and assumptions made in determining the GHG data and emission reductions/3/;
- g. An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters and verification team was able to reach a reasonable level of assurance.

Technical descriptions as observed on site was found to be in line with the registered VCS PD/1/. The geo-coordinates were found in line with the registered VCS PD/1/.

2.5 Resolution of Findings

The objective of this step is to identify, discuss and conclude on the issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions. This is done based on the desk review and onsite assessment. The verification team prepares and/or updates a verification protocol (internal document) that records the conformities and nonconformities, which may be of following types;

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

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

Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable requirements have been met. All CARs and CLs raised by the Earthhood during verification shall be resolved prior to submitting a request for issuance.

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

A total of 05 CAR and 00 CL were raised in the current verification. No FAR was raised. All the findings that are raised and communicated to project participant during the verification are included under Appendix 4. The section also includes the response, if provided, by the project participants and an assessment by the verification team if it was closed out or otherwise

2.5.1 Forward Action Requests

This is third periodic verification of the project activity and no FAR was raised from validation or previous verifications.

2.6 Eligibility for Validation Activities

Not applicable for present verification.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project activity was registered under Clean Development Mechanism (CDM) of UNFCCC (Reference number 9472⁴) and CERs were issued from the monitoring period of 02-January-13 to 28-October-13 under CDM mechanism. As per MR and undertaking provided, PP would not consider the credit from any other mechanism for the current monitoring plan. The undertaking is provided to confirm that there is no any double accounting for current monitoring period/15/. Further, Assessment team confirms that the project activity is not participating in any other form of environmental credits. Also, project activity has not registered for REC benefits. The same was verified by checking the REC Web site/23/.

3.2 Methodology Deviations

This section is not applicable for present verification.

⁴ <https://cdm.unfccc.int/Projects/DB/BVQI1356940326.49>

3.3 Project Description Deviations

As per Para 3.18.1, sub para (2) of VCS standard version 4.0/13/, project has undergone deviation in the monitoring plan from the registered CDM PDD/1/ during the monitoring period of 29-October-2013 to 31-May-2018. The CDM registered PDD mention four monitoring parameters viz. $EG_{PJ,y}$ (net electricity export), $E_{exp,y}$ (Electricity export from each WTG), $E_{imp,y}$ (Electricity import), and $E_{WTG,i,y}$ (Quantity of electricity generated by each WTG)/1/. Now the parameter $E_{WTG,i,y}$ (Quantity of Electricity generated by the individual WTGs) is not part of the monitoring Plan. This deviation was approved during previous periodic verification. Since, as per the registered PDD/1/ the emission reduction is calculated based on $EG_{PJ,y}$ (ex-post) and $EF_{grid,CM,y}$ (ex-ante fixed) and value of $EG_{PJ,y}$ is directly obtained from the JMRs issued by state authority the estimation of emission reduction is thus conservative, correct and accurate. Moreover, the change of the monitoring practice onsite from the registered PDD/1/ do not have any impact on methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology/7/and VCS requirements/13/. Further, assessment team confirms that there is no deviation sought by PP during this verification.

3.4 Grouped Project

This is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

Bindu Vayu Urja Private Limited (BVUPL) is an independent power producer in India. MEIL has installed 39 MW wind power project consisting total 26 turbines of 1.5 MW each in Chakala village in the state of Maharashtra. The Project activity feed generated power to the NEWNE grid (Now INDIAN grid). It was observed that the project activity is implemented in line with the VCS PD/1/, /6/, /10/ & /11/.

The installation has been verified with the commissioning Certificate/10/of WTGs. The technical specifications have been verified through onsite photographs/name plate/9/ of the WTGs provided by the PP. PP. Furthermore, the same is also verified with the previous verification report /20/. This is also found consistent with the VCS PD/1/.

The geo- coordinates of the project location are as follows along with commissioning dates are provided below

Sl. No	WTG number	Latitude (N)	Longitude (E)	Date of Commissioning
1	C-38	21° 15' 30"	74° 19' 48"	30-December-2011
2	C-39	21° 15' 17.2"	74° 19' 39.4"	30-December-2011
3	C-40	21° 15' 13.6"	74° 19' 19.7"	30-December-2011
4	C-41	21° 14' 58.2"	74° 19' 26.7"	30-December-2011
5	C-42	21° 15' 48.2"	74° 19' 15"	22-February-2012
6	C-43	21° 15' 35.7"	74° 19' 10.5"	30-December-2011
7	C-44	21° 15' 23.9"	74° 19' 3.2"	30-December-2011
8	C-45	21° 15' 10.5"	74° 18' 59.2"	30-December-2011
9	C-46	21° 14' 57.1"	74° 19' 0.1"	30-December-2011
10	C-47	21° 15' 46.2"	74° 18' 41.2"	15-February-2012
11	C-48	21° 15' 33.2"	74° 18' 37.7"	12-January-2012
12	C-49	21° 15' 20"	74° 18' 36.1"	15-February-2012
13	C-50	21° 15' 6.6"	74° 18' 38"	03-January-2012
14	C-51	21° 15' 47.8"	74° 18' 13.7"	20-January-2012
15	C-52	21° 15' 33.4"	74° 18' 10.2"	20-January-2012
16	C-53	21° 15' 56.1"	74° 18' 24.4"	22-February-2012
17	C-54	21° 14' 43.8"	74° 18' 30.9"	30-December-2011
18	C-55	21° 15' 35.4"	74° 17' 45.6"	30-December-2011
19	C-56	21° 15' 23.3"	74° 17' 52"	30-December-2011
20	C-57	21° 15' 15.5"	74° 18' 19"	12-January-2012
21	C-58	21° 15' 1.1"	74° 18' 9"	30-December-2011
22	C-59	21° 14' 41.2"	74° 17' 53.4"	15-February-2012
23	C-60	21° 14' 29.6"	74° 18' 6.5"	15-February-2012
24	C-63	21° 14' 31"	74° 17' 41.1"	12-January-2012
25	C-64	21° 14' 23"	74° 17' 48.3"	13-January-2012
26	C-66	21° 14' 48.5"	74° 16' 37.2"	15-February-2012

Assessment team concludes the following:

- The implementation status of project activity was found to be in compliance with registered PD/1/.
- WVB team has conducted the remote audit & document review to confirm the implementation status of the project/9/.
- The commissioning date of the project activity was found to be accurately and consistently recorded/10/.
- The actual operation of project activity was found to be in compliance with the flow diagram provided in registered PD/1/.
- The emission reductions achieved during the current monitoring period are 120,493 tCO₂e/2/& /3/.

The project activity contributes to the sustainable development by utilising wind energy for generating electricity which otherwise would have been generated through fossil fuels. Thereby reduction in usage of non-renewable sources used to generate energy.

Further, the GHG emission reductions generated by the project activity has not been included by any other emissions trading program or any other mechanism that includes

GHG allowance trading. Also, the project has not received any other form of environmental credit and has not been participated/rejected under any other GHG programs for current monitoring period/15/.

Sustainable Development- The project has contributed to the sustainable development as confirmed during remote audit interviews/9/.

1. **Social well-being:** The project contributed to employment opportunities during the construction and operation phases. The project activity also contributed in development of infrastructure in the region like access roads etc.
2. **Economic well-being:** Being renewable nature the project contributed in clean technology investment in the region and due continues operation reducing the demand supply gap in the state.
3. **Technological well-being:** The successful operation of project activity attracted promotion of renewable based power generation and encouraging other entrepreneurs to participate in similar projects in the windfarm.
4. **Environmental well-being:** The project activity is a renewable energy project and thus reducing the dependence on fossil fuels conserving natural resources. Being renewable energy project also helping in avoiding significant amount of GHG emissions.

Further the project has been implemented as described in the VCS Project Description/1/.

The total emission reductions achieved in this monitoring period i.e. from 01-June-2018 to 31-March-2020 (including both days) are 120,493 tCO₂e/2/& /3/.

CAR 01, CAR 02 and CAR 03 were raised by assessment team and same was closed upon receipt of suitable response from PP along with revised MR and supporting documents/2/.

4.2 Safeguards

4.2.1 No Net Harm

The project activity primarily requires the installation of wind turbine generators and does not involve any major construction activity.

The report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013. This report clearly mentioned that wind power project activity operations do not result in direct air pollution, noise pollution. Please refer below web link for the same⁵.

Thus there are no any significant impacts due to implementation of project activity on air, water, soil quality and ambience are envisaged due to the project activity.

⁵ <https://smartnet.niua.org/sites/default/files/resources/report-on-developmental-impacts-of-RE.pdf>

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. For on-going stakeholders communication, PP have maintained feedback/complaint register at the site office/09/&/17/. Assessment team checked the grievance registers available at sites and found that local stakeholders can anytime lodge their grievances if any in the register over the operational life time of the project. During interviews with PP, it was confirmed that Site Manager/In-charge is responsible to address any grievances received from stakeholders/9/. The copy of grievance register is provided to assessment team. Assessment team checked the grievance registers and confirms that during current monitoring period no negative feedback/grievance was received/17/. Thus, assessment team is of the opinion that the ongoing stakeholder mechanism is adequate and appropriate. The copy of feedback/grievance register is provided in Appendix 7 of this report.

4.3 AFOLU-Specific Safeguards

This section is not applicable as this project activity is a non-AFOLU 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/1/ and the monitoring report/2/. The monitoring plan laid in the registered PD/1/ is being followed at the site/9/. 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/2/.

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 $EG_{PJ,y}$ used in deriving the GHG emission reduction could be very well correlated between the data sets and ER spreadsheet/3/ provided by PP. The verification of each monitoring parameter has been discussed later in section 4.5 of this report.

The calculation method and formulae used in calculating baseline emission is in compliance to the methodology used i.e. ACM0002 version 13.0.0/7/. Since project activity is a wind power project, leakage emission and project emission has been considered as zero/1/.

CAR 04 was raised for submitting supporting documents for net electricity supplied by the project activity to the grid and same was resolved by submitting copies of JMR for complete monitoring period/6/.

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 fulfilled.

Parameter	EGPJ,y (MWh) Quantity of net electricity exported to the grid during the year y.	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated as difference between import on the MSEDCL meter and the percentage transmission loss incurred in the transmission line between the project and the interconnection point (i.e. substation. The energy exports and imports are recorded monthly/6/.
	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/1/ and monitoring methodology/7/.
	Monitoring equipment	Dedicated meters located at the sub-station /4/.
	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?	Accuracy class of the equipment is 0.2s, which is in line to registered PD/1/ and consistent with calibration certificate/4/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Accuracy class is valid for entire range.
	Calibration frequency /interval:	The meters are calibrated by respective State Utility/authorized agency annually /1/. Same are verified from the calibration certificates provided by the PP/4/. Calibration of meters were delayed from 20-March-2019 to 26-March-2019 and 27-March-2020 to 31-March-2020 ⁶ . Hence, permissible error factor of 0.2% has been applied to the values of export (error subtracted) & import (error added) for complete month as observed error was less than maximum permissible error. Thus, delayed calibration is addressed in line with para 366 (a) of the "CDM validation and verification standard for project activities, Version 02.0" by applying maximum permissible error for complete delayed period as

⁶ 31-March-2020 is the end date of this monitoring period

		conservative approach. Same was accepted by the assessment team being inline with standard and most conservative approach. Details of the calibration are provided in FVR Appendix 5 and revised MR Appendix 1.
	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?	Yes
	Is the calibration of measuring equipment carried out by an accredited person or institution?	The meters are calibrated by respective State Utility's testing division/authorized agency annually/4/.
	Is(are) calibration(s) valid for the whole reporting period?	Yes. The calibration dates are presented in appendix 5 of this report. The dates have been checked from the calibration certificates/4/. Thus, it is valid for the whole monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes
	How were the values in the monitoring report verified?	A value of Net Electricity export by the project activity for the monitoring period (126,477.415 MWh) verified from monthly credit note (joint meter reading) issued by State Utility /6/. The value was found to be consistently reported in MR/2/ and ER sheet/3/.
	If applicable, has the reported data been cross-checked with other available data?	The readings were cross checked with the monthly bills raised by PP to State Utility/5/.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the calibration of the monitoring meters is done by state utility periodically. Check meters also help in verifying main meter readings/4/.
	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?	No such issues.
Findings	CAR 05 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 implementation of the project is as per the registered PD/1/ could be confirmed by the verification team.
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Parameter	EG_{exp,y} (MWh) Electricity exported from each WEG of the project activity during the year y.	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Electricity exported by the project activity is monthly recorded. These reading are recorded at substaion by MSEDCL officials /6/.
	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/1/ and monitoring methodology/7/.
	Monitoring equipment	Dedicated meters located at the substation /4/
	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?	Yes, Accuracy class of the equipment is 0.2s, which is in line to registered PD/1/ and consistent with calibration certificate/4/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Accuracy is valid for the entire measuring range.
	Calibration frequency /interval:	The meters are calibrated by respective State Utility annually/1/. Same are verified from the calibration certificates provided by the PP/4/. Calibration of meters were delayed from 20-March-2019 to 26-March-2019 and 27-March-2020 to 31-Mach-2020 ⁷ . Hence, permissible error factor of 0.2% has been applied to the values of export (error subtracted) & import (error added) for complete month as observed error was

⁷ 31-Mach-2020 is the end date of this monitoring period

		less than maximum permissible error. Thus, delayed calibration is addressed in line with para 366 (a) of the “CDM validation and verification standard for project activities, Version 02.0” by applying maximum permissible error for complete delayed period as conservative approach. Same was accepted by the assessment team being inline with standard and most conservative approach. Details of the calibration are provided in FVR Appendix 5 and revised MR Appendix 1.
	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?	Yes
	Is the calibration of measuring equipment carried out by an accredited person or institution?	The meters are calibrated by respective State Utility's testing annually/4/.
	Is(are) calibration(s) valid for the whole reporting period?	Yes. The calibration dates are presented in Appendix 5 of this report. The dates have been checked from the calibration certificates/4/. Thus, it is valid for the whole monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes
	How were the values in the monitoring report verified?	A value of electricity exported to grid after apportioning of transmission losses incurred in the transmission line between project and interconnection point (i.e. substation) for the monitoring period (127,206.441 MWh) verified from the credit notes (JMRs) /6/. Further, due to delay in calibration of meter in 2019 and 2020, PP has applied maximum permissible error (0.2%) factor from 01-March-2019 to 01-April-2019 & 01-March-2020 to 31-March-2020 to

		exported energy. The value was found to be consistently reported in MR/2/ and ER sheet/3/.
	If applicable, has the reported data been cross-checked with other available data?	The readings were cross checked with certified statement given by the state utility (JMRs) showing export and import/6/. The same is also cross checked with invoices raised by PP to state utility/5/.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the calibration of the monitoring meters is done by state utility periodically. Check meters also help in verifying main meter readings/4/.
	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?	No such issues.
Findings	CAR 05 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 implementation of the project is as per the registered PD/1/ which has been confirmed by the verification team.	

Parameter	EG _{imp} (MWh) Electricity imported from the grid by the project activity during the year y	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Electricity imported from grid is continuously measured and monthly recorded by MSEDCL official measured by trivector meters at sub station. .
	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/1/ and monitoring methodology/7/.
	Monitoring equipment	Dedicated meters located at the substation /4/

	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?	Yes, Accuracy class of the equipment (main & Check meter) is 0.2s, which is in line to registered PD/1/ and consistent with calibration certificate/4/
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Accuracy is valid for the entire measuring range.
	Calibration frequency /interval:	The meters are calibrated by respective State Utility annually/1/. Same are verified from the calibration certificates provided by the PP/4/. Calibration of meters were delayed from 20-March-2019 to 26-March-2019 and 27-March-2020 to 31-Mach-2020 ⁸ . Hence, permissible error factor of 0.2% has been applied to the values of export (error subtracted) & import (error added) for complete month as observed error was less than maximum permissible error. Thus, delayed calibration is addressed in line with para 366 (a) of the "CDM validation and verification standard for project activities, Version 02.0" by applying maximum permissible error for complete delayed period as conservative approach. Same was accepted by the assessment team being inline with standard and most conservative approach. Details of the calibration are provided in FVR Appendix 5 and revised MR Appendix 1.
	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	Yes

⁸ 31-Mach-2020 is the end date of this monitoring period

	manufacturer's specifications?	
	Is the calibration of measuring equipment carried out by an accredited person or institution?	The meters are calibrated by respective State Utility's testing annually/4/.
	Is(are) calibration(s) valid for the whole reporting period?	Yes. The calibration dates are presented in Appendix 5 of this report. The dates have been checked from the calibration certificates/4/. Thus, it is valid for the whole monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes
	How were the values in the monitoring report verified?	A value of of Electricity imported from grid for the monitoring period (729.026 MWh) verified from the certified statement (JMRs) /6/ provided by the state utility showing export and import. Further, due to delay in calibration of meter in 2019 and 2020. PP has applied maximum permissible error (0.2%) factor from 01-March-2019 01-April-2019 and 01-March-2020 to 31-March-2020 to import energy. The value was found to be consistently reported in MR/2/ and ER sheet /3/
	If applicable, has the reported data been cross-checked with other available data?	The readings were cross checked with the monthly invoices raised by PP to state utility/6/.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, the calibration of the monitoring meters is done by state utility periodically. Check meters also help in verifying main meter readings/4/.
	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?	No such issues.
Findings	CAR 05 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 implementation of the project is as per the registered PD/1/ which has been confirmed by the verification team.
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Parameters fixed ex ante:

EF_{grid,OMsimple,y}: tCO₂e/MWh: It is the Operating margin CO₂ emission factor of NEWNE grid at the time of project registration the mentioned value of 0.9851 tCO₂e/MWh is consistent with the registered PD/1/.

EF_{grid,BM,y}: tCO₂e/MWh: it is Build margin CO₂ emission factor of NEWNE grid fixed and at the time of project registration the mentioned value of 0.8587 tCO₂e/MWh is consistent with the registered PD/1/.

EF_{grid,CM,y}: tCO₂e/MWh: it is the Combined margin CO₂ emission factor of NEWNE grid fixed at the time of project registration the mentioned value of 0.9527 tCO₂e/MWh is consistent with the registered PD/1/.

Calibration of meters:

During the verification assessment of the project activity, accuracy of all the metering was checked/4/. The installation and working conditions of the meters were checked by reviewing documents/4/&6/. Calibration details of the meters are given in Appendix 5 of this report.

In line with the registered PD/1/, calibration frequency of the billing meters is annually. Calibration of meters were delayed in 2019 and 2020. PP has applied maximum permissible error (0.2%) factor from 01-March 2019 to 01-April-2019 and 01-March-2020 to 31-March-2020 in export and import of energy/4/. Further, there was not any significant period of shut-down or break-down period during this monitoring period/26/.

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)/1/. The formula provided for the calculation of baseline emissions is:

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$$

Where:

BE_y = Baseline Emissions in year y (tCO₂)

EG_{PJ,y} = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr)

EF_{grid,CM,y} = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO₂/MWh)

Baseline emissions (BE_y) are calculated as follows:

$$\begin{aligned} BE_y &= EG_{PJ, y} \times EF_{grid, CM, y} \\ &= 126,477.415 \times 0.9527 \\ &= 120,493 \text{ tCO}_2\text{e}^9 \end{aligned}$$

Project Emissions:

No project emissions are applicable since this is a wind energy generation project. This is verifiable from the applied methodology ACM0002, ver. 13.0.0/7/.

Leakage:

No leakage emissions are applicable to the project activity, since it is a wind energy generation project. This can be verified from the applied methodology ACM0002, ver. 13.0.0/7/.

Comparison of actual and estimate emission reductions achieved:

Assessment team checked the calculation of estimated VER vs. Actual VER. As per the registered VCS PDD the amount of VERs annually is 74,307 tCO₂e/1/. The days involved in present monitoring period are 670/3/. Therefore, on pro-rata basis, the estimated VERs for the monitoring period is 136,399 tCO₂e/3/. Actual VERs obtained for the monitoring period is 120,493 tCO₂e/2/ and thus the actual VER is 11.66 lower than the estimated VER/3/. This is because of lower PLF achieved in this monitoring period.

Emissions Reductions for Project activity:

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-June-2018 to 31-December-2018	45,230	0	0	45,230
01-January-2019 to 31-December-2019	68,888	0	0	68,888
01-January-2020 to 31-March-2020	6,375	0	0	6,375
Total	120,493	0	0	120,493

⁹ Rounddown value

4.6 Non-Permanence Risk Analysis

Not applicable

5 VERIFICATION CONCLUSION

Earthood Services Private Limited (Earthood), contracted by Bindu Vayu Urja Private Limited (BVUPL), has performed the independent verification of the emission reductions for the VCS project activity reference number 1197 “Chakala wind power project in Maharashtra”/12/ in India for the monitoring period 01-June-2018 to 31-March-2020 (including both days) reported in the Monitoring Report Version 03 dated 21-October 2020/2/.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity.

Earthood commenced the verification on the basis of the baseline and monitoring methodology ACM 0002 version 13.0.0/7/, the monitoring plan contained in the VCS PD/1/ and VCS guidelines version 4.0/14/, Monitoring Report Version 03 dated 21-October- 2020/2/ as per the process described under Section 2 of this report.

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-June-2018 to 31-March-2020 (including both days) are fairly stated in the Monitoring Report/2/. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology ACM 0002 version 13.0.0/7/ and the VCS standard/13/.

Monitoring period: 01-June-2018 to 31-March-2020 (both days inclusive)

Verified GHG emission reductions and removals in the above verification period:

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-June-2018 to 31-December-2018	45,230	0	0	45,230

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-2019 to 31-December-2019	68,888	0	0	68,888
01-January-2020 to 31-March-2020	6,375	0	0	6,375
Total	120,493	0	0	120,493

Approved by



Dr. Kaviraj Singh

Managing Director

Earthood Services Privated Limited

Date: 18-December-2020

Place: Gurgaon, Haryana

APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED (VERIFICATION)

S. No	Title of Document	Version	Date
1.	Registered VCS PD Registered CDM PDD	06 07	15-May-2014 29-December-2012
2.	Draft VCS Monitoring Report Final VCS Monitoring Report	01 03	06-April-2020 10-November-2020
3.	Draft ER spread sheet ER spread sheet (corresponding to the final monitoring report)	01 02	06-April-2020 21-October-2020
4.	Certificates of Calibration for all the meters belongs to project activity	-	-
5.	Invoice issued by PP for the complete monitoring period	-	-
6.	Joint Meter Readings for the complete monitoring period	-	-
7.	"Grid-connected electricity generation from renewable sources", ACM0002	version 13.0.0	-
8.	CO ₂ Baseline Database for the Indian Power Sector published by the Central Electricity Authority (CEA), Ministry of Power, Govt.	07	-
9.	Remote Audit/ records interviews of plant staff	-	19-June-2020
10.	Commissioning certificate for all the WTGs of the project activity from MSEDCL	-	-
11.	Power Purchase Agreements	-	17-June-2012
12.	VCS webpage for the project, VCS ID 1197; https://registry.terra.org/app/projectDetail/VCS/1197	-	Last accessed on 23-October-2020
13.	VCS Standard	Version 4.0	Last accessed on 22-October-2020
14.	VCS Program Guide	Version 4.0	Last accessed on 22-October-2020
15.	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the same period and double counting	-	18-April-2020
16.	Google Earth desktop/Mobile application	-	Last accessed on 23-October-2020
17.	Feedback/Grievance register	-	-
18.	O&M agreement for the project activity	-	-
19.	CDM validation and verification standard for project activities, Version 02.0	-	-
20.	Verification Reports for previous VCS verification	01	19- November-2018
21.	Breakdown details of the power plant	-	-
22.	VCS Version 4: Overview of Substantive Updates to Program Rules & Requirement https://terra.org/wp-content/uploads/2019/09/VCS-V4-Summary-of-Effective-Dates.pdf	-	-
23.	REC Registry https://www.recregistryindia.nic.in/index.php/publics/accredited_regens	-	Last accessed on 19-June-2020
24.	Technical specifications of wind turbine Generators from manufacturers	-	-

S. No	Title of Document	Version	Date
25.	Ministry of Home Affairs Order https://www.mha.gov.in/sites/default/files/MHAorder%20copy.pdf	-	24-March-2020
26.	Ministry of Home Affairs Order (D.O No.40-3/2020-DM-I(A) https://www.mha.gov.in/sites/default/files/MHA%20DO%20letter%20dt.14.4.2020%20to%20Chief%20Secretaries%20and%20Administrators%20for%20strict%20implementation%20of%20Lockdown%20Order%20during%20extended%20period.pdf	-	14-April-2020
27.	Ministry of Home Affairs Order (Order No.40-3/2020-DM-I(A) https://www.mha.gov.in/sites/default/files/MHA%20Order%20Dt.%201.5.2020%20to%20extend%20Lockdown%20period%20for%202%20weeks%20w.e.f.%204.5.2020%20with%20new%20guidelines.pdf	-	01-May-2020
28.	Ministry of Home Affairs Order https://www.mha.gov.in/sites/default/files/MHAOrderextension_1752020_0.pdf	-	17-May-2020
29.	Home Secretary Letter https://www.mha.gov.in/sites/default/files/MHADOLrDt_305_2020.pdf	-	30-May-2020
30.	Nandurbar District Collector order for partial curfew https://cdn.s3waas.gov.in/s3db85e2590b6109813dafa101ceb2faeb/uploads/2020/06/2020061690.pdf	-	15-June-2020
31.	Nandurbar District Collector order for restriction of outsiders in district https://cdn.s3waas.gov.in/s3db85e2590b6109813dafa101ceb2faeb/uploads/2020/06/2020061647.pdf	-	15-June-2020

APPENDIX 2: COMPETENCY STATEMENT

Competence Statement	
Name	Atul Takarkhede
Education	Ph.D. Environmental Science
Experience	12 years
Field	Climate Change and environment
Approved Roles	
Team Leader	YES
Validator	NO
Verifier	NO
Methodology Expert	NO
Local expert	NO

Financial Expert	NO		
Technical Reviewer	NO		
TA Expert	YES (1.2)		
Reviewed by	Shreya Garg	Date	24/04/2019
Approved by	Anshika Gupta	Date	25/04/2019

Name	Sanjeev Kumar		
Country	India		
Education	B. Tech. (Chemical Engineering) M.Tech. (Energy Management)		
Experience	13.5 years +		
Field	Climate Change, Environment, Energy		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (ACM0002, ACM0006, ACM0004, ACM0009, ACM0012, ACM0001, AMS I.D, AMS I.F, AMS I.C, AMS I.A, AMS II.C, AMS II.D, AMS II.E, AMS III.H, AM0009, AM0013, AM0025, AM0056, AM0028, AM0029, AM0008, AMS III.R, ACM0003)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.1, TA 1.2, 4.1, 13.1)		
Reviewed by	Shreya Garg	Date	16/01/2020
Approved by	Anshika Gupta	Date	16/01/2020

Competence Statement	
Name	Shreya Garg
Country	India
Education	M.Sc. (Climate Science & Policy), TERI University
Experience	6 Years +
Field	Climate Change
Approved Roles	
Team Leader	YES
Validator	YES
Verifier	YES

Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Abhishek Mahawar	Date	01/03/2018
Approved by	Ashok Gautam	Date	01/03/2018

APPENDIX 3: ABBREVIATIONS

Abbreviations	Full texts
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CEA	Central Electricity Authority
CL	Clarification request
CM	Combined Margin
CMS	Central Monitoring system
CO ₂	Carbon dioxide
CO _{2e}	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reductions
FAR	Forward Action Request
MSDCL	Maharashtra State Electricity Distribution Co. Ltd.
GHG	Greenhouse gas(es)
GWP	Global Warming potential
PP	Project Participant

APPENDIX 4: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)

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

FAR ID	XX	Section no.	E.2	Date : DD/MM/YYYY
Description of FAR				
There is no FAR from the validation of the project activity				
Project participant response				Date : DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: DD/MM/YYYY
NA				

Table 2. CL from this verification

CL ID	00	Section no.	-	Date : -DD-MM-YYYY
Description of CL				
NA				
Project participant response				Date : DD-MM-YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: DD-MM-YYYY
NA				

Table 3. CAR from this verification

CAR ID	01	Section no.	4.1	Date : 25-September-2020
Description of CAR				
Following discrepancies observed during review of MR: 1. Page numbers and Date format not inline with the guidelines for completing MR template. Corrections sought. 2. Section 1.11 of the MR lacking details of actual contribution to Sustainable Development by project activity and parameter economic well-being to be reviewed for correctness. 3. Section 1.9 and Section 1.10 of the MR lacks information on the participation of the project in CDM mechanism and REC mechanism respectively. Corrections requested. 4. PP requested to review editorial mistakes and correct parameter notations. 5. PP requested to submit copies of commissioning certificates, PPA, O&M agreements/Schedule, breakdown details, training records for the personnel's involved in monitoring of the project activity. PP Also requested to submit photographs of WTGs, substations and monitoring meters involved in the project activity.				

Project participant response		Date : 19-October-2020
1. Page numbers and date format are now inline with the guidelines for completing MR template. 2. Section 1.11 of the MR as well the parameter economic well-being are now being revised in this submission. 3. Section 1.9 & 1.10 has now been updated with the details of participation under any other GHG program. 4. Editorial mistakes have been reviewed and VCS MR has now been updated with correct notations. 5. Copies of Commissioning Certificates, PPA, O&M agreements, Breakdown details, Training record of personnel involved are being attached in this submission. Also, the photographs of WTGs, substations and meters involved are also being submitted.		
Documentation provided by project participant		
VCS MR V02, Commissioning certificates, PPA, O&M agreements, Breakdown details, training records		
DOE assessment		Date: 21-October-2020
1. Date template of revised MR v.02, dated 19/10/2020 not inlined with the guidelines for completing MR template. CAR thus open. 2. PP has reframed the language of section 1.11 of revised MR v.02 dated 19/10/2020, as the project is implemented and contributing towards Sustainable Development. CAR closed 3. PP has mentioned the information regarding participation of the project in CDM mechanism and REC mechanism in section 1.9 and 1.10 of revised MR v.02 dated 19/10/2020. Found correct. 4. Editorial Mistakes and parameters notation has been successfully rectified by PP under revised MR v.02 dated 19/10/2020. 5. PP has submitted following documents against current monitoring period of respective project activity: - ✓ O&M agreement between CAPARO Energy Pvt Ltd and SUZLON Infrastructure Service Ltd, dated 03/08/2011. ✓ Commissioning Certificate of all 26 WTGs, dated 30/12/2011. ✓ Breakdown details. ✓ Training records of O&M staff. ✓ PPA between Bindu Vayu Urja private Limited and Maharashtra State Electricity Distribution Company Ltd, dated 05/06/2012. ✓ Photograph of Project Activity. All documents found consistent with Revised MR v.02 dated 19/10/2020, hence Accepted.		
Project participant response		Date: 21-October-2020
Date format has now been rectified in this submission throughout the VCS MR		
Documentation provided by project participant		
VCS MR V03		
DOE assessment		Date: 22-October-2020
1. PP has rectified the Date template of revised MR v.03, dated 21/10/2020 as per the guidelines for completing MR template. CAR thus Closed.		

CAR ID	02	Section no.	4.1	Date : 25-September-2020
Description of CAR				
PP requested to submit declaration in effect of avoiding double counting with regard to Participation under other GHG Program; CDM & CER issued/Other forms credits including REC, India.				
Project participant response				Date : 19-October-2020
Double counting declaration with regard to participation under other GHG Programs has been submitted.				

Documentation provided by project participant	
Double counting declaration.	
DOE assessment	Date: 21-October-2020
PP have submitted undertaking in effect that PP avoiding double counting with regard to Participation under other GHG Program; CDM & CER issued/Other forms credits including REC, India. CAR thus closed	

CAR ID	03	Section no.	4.2.2	Date : 25-September-2020
Description of CAR				
Section 2.2, Local Stakeholders Consultation of the MR is not completed inline with guidelines to complete MR template and requirements of VCS Standard, version 04. Also PP requested to submit grievance register maintained at site.				
Project participant response				Date : 19-October-2020
Section 2.2 has now been revised inline with the guidelines of VCS standard, version 04. Also, the grievance register has been submitted.				
Documentation provided by project participant				
VCS MR V02, grievance register				
DOE assessment				Date: 21-October-2020
PP has rectified the description of Local Stakeholders Consultation in section 2.2 of Revised MR v.02 dated 19/10/2020. Also submitted copies of Grievance register, found consistent hence accepted.				
CAR is Closed				

CAR ID	04	Section no.	4.4	Date : 25-September-2020
Description of CAR				
PP requested to submit copies all JMRs and invoices for the complete monitoring period. Also PP requested to submit ER calculation sheet for the project activity.				
Project participant response				Date : 19-October-2020
Copies of JMRs and Invoices for the complete monitoring period and ER calculation sheet has now been submitted.				
Documentation provided by project participant				
JMRs, Invoices & ER calculation sheet.				
DOE assessment				Date: 21-October-2020
PP has submitted copied of all JMRs and invoices for the complete monitoring period. Found inconsistency with ER sheet. CAR thus Opened.				
Project participant response				Date: 21-October-2020
The inconsistency observed in the ER sheet has now been rectified.				
Documentation provided by project participant				
ER calculation sheet				
DOE assessment				Date: 22-October-2020
PP has resolved the inconsistency of ER sheet with JMRs and Invoices. Hence accepted. CAR thus Closed.				

CAR ID	05	Section no.	4.5	Date : 25-September-2020
Description of CAR				
Details of the monitoring meters and calibration details found missing in the MR. Also PP requested to submit copies of the calibration certificates to justify annual calibration frequency compliance throughout monitoring period including first & last dates.				
Project participant response				Date : 19-October-2020
MR Version 02 has now been updated with details of monitoring meters and calibration details. Also, the copies of calibration certificates are being submitted.				

Documentation provided by project participant	
VCS MR V02, Calibration certificates.	
DOE assessment	Date: 21-October-2020
PP has mentioned the details of monitoring meters and calibration under Appendix 01 of Revised MRv.02 dated 19/10/2020, found consistent with the Calibration certificate. Thus accepted.	
CAR Closed	

Table 4. FAR from this verification

FAR ID	XX	Section No.	Date : DD/MM/YYYY
Description of FAR			
There is no FAR from this verification			
Project participant response			Date : DD/MM/YYYY
NA			
Documentation provided by project participant			
NA			
DOE assessment			Date: DD/MM/YYYY
NA			

APPENDIX 5: CALIBRATION DETAILS OF THE METERS

Location No.	Metering Point	Meter Make	MSEDCL Main Meter Serial	MSEDCL Check Meter Serial Number	Calibration Date	Calibration Date	Calibration date	Calibration Compliance
C54	Gangapur 12	Elster	02811287	02811288	20-March-2018	27-March-2019	20-May-2020	Delay 20-March-2019 to 26-March-2019 and 27-March-2020 to 31-March-2020 ¹⁰ .
C55								
C56								
C58								
C57								
C63								

¹⁰ 31-March-2020 is the end date of this monitoring period

Location No.	Metering Point	Meter Make	MSEDCL Main Meter Serial	MSEDCL Check Meter Serial Number	Calibration Date	Calibration Date	Calibration date	Calibration Compliance
C64								
C59								
C60								
C66								
C53								
C38	Gangapur 11	Elster	02831554	02831555	20-March-2018	27-March-2019	20-May-2020	Delay 20-March-2019 to 26-March-2019 and 27-March-2020 to 31-March-2020
C39								
C40								
C41								
C43								
C44								
C46								
C50								
C51								
C52								
C48								
C47								
C49								
C42								