



VERIFICATION REPORT FOR

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



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Summary:

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) 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 ”, VCS ID 489, against VCS Standard Version 04.0.

The verification includes confirming the implementation of the monitoring plan of the registered VCS PD and MR (Project ID 489) and the application of the monitoring methodology as per ACM0002, Version 17 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”. A site visit was conducted to verify the data submitted in the monitoring report.

The project activity involves generation of electricity by using the renewable energy source (wind) supplying to the Indian electricity grid. Thus the project aims to displace electricity produced by fossil fuel power plants harnessing wind energy. Therefore the project reduces greenhouse gas emissions and thereby contributes to sustainable development.

A risk based approach has been followed to perform this verification. In the course of verification, 03 Corrective Action request (CARs), 00 Forward Action Request (FAR) and 01 Clarification request (CLs)

were raised and successfully closed.

The review of the project design documentation, monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and stakeholders have provided Applus+ Certification with sufficient evidence to validate the fulfillment of the stated criteria.

Applus+ Certification confirms that the project is implemented in accordance with the registered VCS PD & MR. 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 " in India during the period 01/11/2018 – 31/12/2019 (including both days) amount to 74,380 tons of CO₂e.

1	Introduction	5
1.1	Objective	5
1.2	Scope and Criteria	5
1.3	Level of Assurance	6
1.4	Summary Description of the Project	6
2	Verification Process	6
2.1	Method and Criteria	7
2.2	Document Review	7
2.3	Interviews	7
2.4	Site Inspections	8
2.5	Resolution of Findings	8
2.6	Eligibility for Validation Activities	10
3	Validation Findings	10
3.1	Participation under Other GHG Programs	10
3.2	Methodology Deviations	10
3.3	Project Description Deviations	10
3.4	Grouped Project	11
4	Verification Findings	11
4.1	Project Implementation Status	11
4.2	Safeguards	12
4.3	AFOLU-Specific Safeguards	13
4.4	Accuracy of GHG Emission Reduction and Removal Calculations	13
4.5	Quality of Evidence to Determine GHG Emission Reductions and Removals	13
4.6	Non-Permanence Risk Analysis	27
5	Verification conclusion	28
	APPENDIX 1: DOCUMENT REFERENCES	29
	APPENDIX 2: ABBREVIATIONS	30
	APPENDIX 3: FINDINGS OVERVIEW	31
	APPENDIX 4: COMPETENCY STATEMENTS	34

1 INTRODUCTION

1.1 Objective

Applus+ Certification has been contracted by Wind World (India) Ltd. (project proponent), to undertake the verification of the renewable energy project titled “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India ”(VCS ID-489) The verifiers have reviewed the GHG data collected to date for the monitoring period from 01/11/2018 to 31/12/2019 (both days included) 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 DOE. 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 scope of the verification was the independent and objective review and ex-post determination of the monitored reductions in GHG emissions from “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India” The verification of this project was based on the registered project description/01/ & monitoring report /04/ and supporting documents submitted by the project proponent to the verification team. The documents were reviewed against the following guidance and protocols:

VCS Standard: VCS standard Version 04.0, dated 19/09/2019

Approved baseline and monitoring methodology ACM0002, Version 17, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”.

Validated VCS Project Description, version 03 dated 01/04/2018

VCS Program Guide, Version 04.0, dated 19/09/2019

ISO 14064-3: Specification with guidance for the validation and verification of greenhouse gas assertions, 2006

CDM VVS and PS for project activities version 02.0

The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Level of Assurance

The level of assurance of the verification report falls under reasonable assurance engagements as selected by the Client. The verification team verified the complete monitoring data for all the parameters of the monitoring plan and confirms that the reported emission reductions are free from any type of material errors.

1.4 Summary Description of the Project

The project activity involves electricity generation by wind electric convertors and supplying the generated electricity to the Indian Grid. The project being a renewable energy generation activity, it leads to removal of fossil fuel dominated electricity generation. The project activity results in reductions of greenhouse gas (GHG) emissions that are real, measurable, and verifiable and also plays beneficial role in the mitigation of climate change. The project activity is located at villages in Aundhewadi, Kadvekhurd, Varekarwadi, Bhambarwadi & Panchpatta, in Satara, Sangli, Nasik & Ahmednagar district in the state of Maharashtra (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 wind mills is being supplied to Maharashtra State grid which is 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. 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.

Location of the project was verified through Google Map (<https://www.gps-coordinates.net/>) and found consistent with the data provided in the registered PD /01/. The WTGs have been commissioned between 07/02/2006 and 10/12/2008. The same was verified against the registered VCS PD/01/ and commissioning certificates/12/. The emission reductions from the project activity during the period 01/11/2018 – 31/12/2019 (including both days) amount to 74,380 tonnes of CO₂e.

2 VERIFICATION PROCESS

The registered VCS project is undergoing fourth verification under VCS after crediting period renewal, the approach adopted to ensure the quality of emission reductions is described in the following sections.

2.1 Method and Criteria

Verification was conducted using Applus+ Certification procedures in line with the requirements specified in the VCS standard Version 04.0 Requirements, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques. The project activity does not falls under category “grouped projects”, hence any sampling methods not to be employed by the validation/verification body for the verification of GHG emission reductions or removals generated by the project.

It is to be assessed and determined whether the proposed implementation and operation of the project activity, and the steps taken to report emission reductions comply with the criteria and relevant guidance provided by the VCS Board. The verification process consist of the following three phases;

- A desk review of the VCS PD and VCS MR
- Site visit and follow up interviews with project stakeholders
- The resolution of outstanding issues and issuance of final report and opinion.

2.2 Document Review

The verification is performed primarily as a document review of the registered VCS PD/01/, previous MR and Verification report and associated documents as stated in details in appendix 1 of this document. The assessment is performed by a verification team referring the Applus+ Certification internal procedures in line with latest VCS requirements. The cross checks between information provided in the Monitoring report, VCS PD and information from sources other than those used, if available, the team’s sectoral or local expertise and, if necessary, independent background investigations.

2.3 Interviews

The site visit for the project location, by the assessment team, was conducted on 02/03/2020 and the following stakeholders were interviewed.

S N	Name	Organization
1	Mr. J.H Saiyad	Senior Manager,WWIL
2	Mr. Vaibhav Jadhav	Site Incharge,WWIL
3	Mr.Mangesh Ghodake	Assistant Enginner,WWIL

The topics covered during interview ranges from general features and implementation of project to technical details of the project like calibration details, monitoring and measuring system and data collection, recording and archiving procedures. The assessment was drawn based on the feedback received during interview coupled with the documentation and on-site observations.

2.4 Site Inspections

On 02/03/2020, site visit was undertaken by the verification team member Vivek Ahriwar (Lead Auditor) at villages Aundhewadi, Kadvekhurd, Varekarwadi, Bhambarwadi & Panchpatta, in Satara, Sangli, Nasik & Ahmednagar district in the state of Maharashtra (India to carry out the following;

- a) An assessment of the implementation and operation of the registered project activity as per the registered VCS PD and VCS MR;
- b) A review of information flows 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;
- d) A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;
- e) A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PD, 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;
- 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.

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 non-conformities, which may be of following types;

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

- 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;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- 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 CDM requirements have been met. All CARs and CLs raised by the Applus+ Certification 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.

During the current verification, 03 Corrective Action request (CARs), 00 Forward Action Request (FAR) and 01 Clarification request (CLs) were raised and successfully closed.

All the findings that are raised and communicated to project participant during the verification are included under Appendix 3. 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

The project activity is undergoing fourth verification under VCS; there were no FARs raised during the validation or previous verification. Also during the current verification no FAR is raised.

2.6 Eligibility for Validation Activities

Not applicable.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project activity is registered under the VCS only (VCS Project ID 489) and is not registered under any other emissions trading program or any other mechanism that includes GHG allowance trading. PP also confirms that net GHG emission reductions or removals generated during this monitoring period shall not be used for compliance under any such programs or mechanisms. This was confirmed through a declaration/18/ submitted by the PP and hence accepted by the assessment team.

3.2 Methodology Deviations

There is no methodology deviation identified during the current monitoring period.

3.3 Project Description Deviations

- During the previous monitoring periods(first and third), calibration of energy meters installed at Panchpata, Varekarwadi and Bhambarwadi sites is not conducted as per the frequency as mentioned in the registered monitoring plan, hence delay in calibration is identified.
- During the current monitoring period, calibration of energy meters installed at Kadvekhurd, Varekarwadi and Bhambarwadi sites is not conducted as per the frequency as mentioned in the registered monitoring plan, hence delay in calibration is identified.

It is to be noted that calibration of meters is completely under preview of state utility and PP has no control over the same as confirmed through interviews of site personnel and PPA signed by the PP with state utility/13/, hence the project participant has considered the calibration delay as project deviation the current monitoring period.

The assessment team is able to confirm that the deviation identified during the current monitoring period is appropriately described and justified and the project remains in compliance with the VCS rules. Also the deviation does not have an impact on the applicability of the methodology, additionality or the appropriateness of the baseline scenario.

3.4 Grouped Project

Not applicable. The project activity is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

This is fourth verification of the 2nd crediting period for the project activity. The project activity has been commissioned and is operating satisfactorily. The same has been checked and verified during the site visit to the project activity. The commissioning of all the WTGs have been verified against their commissioning certificates/12/.

It is noted that the name of the PP has changed from Enercon (India) Limited to Wind World (India) Limited, the same is verified thorough Certificate of Incorporation Consequent up on change of name issued by the Ministry of Corporate Affairs (GOI), dated 01/01/2013/19/. The PP name is also updated as Wind World (India) Limited in the APX VCS registry account, snap shot of the registry account is checked and found to be correct.

The monitoring of the project activity is found to be in accordance with the monitoring methodology described in ACM0002, Version 17/09/. The monitoring mechanism is effective and reliable. During the site visit, 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/; VCS MR/04/ and validation report for renewal crediting period /02/ and cross-checked against the PPA/13/ signed for the project activity. There was no major breakdown or shut downs during the monitoring period which might affect the applicability of methodology or might cause material errors in emission reductions.

During the site visit current status of each WTG was verified by the verification team through the online CMS system maintained at project site and confirmed that all the 55 machines were functional. The WTGs were stopped during the current monitoring period for regular electrical and mechanical maintenance and visual inspection, the same was verified during the site visit. The verification team also confirmed that there are no events or situations encountered during the current monitoring period that may impact the applicability of methodology.

During the site visit, it was observed that, the WTGs belonging to the project activity are connected to the grid through an appropriate power evacuation system. Appropriate metering system and calculation

procedures are transparently described in the monitoring plan to enable accurate determination of emission reductions achieved by the project activity.

The information relating to the project implementation, provided in the Monitoring Report/04/ 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. Total emission reductions achieved under this monitoring period 01/11/2018 to 31/12/2019 (including both days) are 74,380 tCO₂e.

Assessment team concludes the following:

- a) There is 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 is no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology/09/.
- d) The GHG emission reductions or removals generated by the project have not included in an emissions trading program or any other mechanism that includes GHG allowance trading/18/.
- e) The project has not received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification/18/.
- f) The project has not participated or been rejected under any other GHG programs since validation or previous verification.
- g) The project activity is comply with indicators for sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India as discussed under section 1.10 of MR.

In view of the information's as verified above the assessment team is able to conclude that the project has been implemented as described in the project description.

4.2 Safeguards

4.2.1 No Net Harm

There is no negative impact to any socio economic conditions of the region due to the project activity. As per the notifications issued by Ministry of Environment and Forest dated 01/12/2009, Environmental Impact Assessment for the wind projects is not required to be done.

This project activity will not involve any negative environmental or socio-economic impacts, as the WTGs are installed for generation of power using wind which is a clean source of energy. Hence no mitigation measures are required.

4.2.2 Local Stakeholder Consultation

Not applicable for this verification.

4.3 AFOLU-Specific Safeguards

Not applicable.

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/04/. The monitoring plan laid in the registered PD/01/ is being followed at the site/11/. 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/04/.

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/05/ provided by PP. The net electricity to the grid ($EG_{y,net}$) by the project activity measured by state utility on monthly basis through dedicated metering system installed at respective sites and recorded in the monthly credit notes provided to project proponent. 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 4.3.

The calculation method and formulae used in calculating baseline emission is in compliance to the methodology used i.e. ACM0002 version 17 /09/. 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 table 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	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_{,export} – EG_{,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/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated.However the parameter EG _{,export} and EG _{,import} are calculated using measured values, are continuously monitored, hourly measured and monthly recorded ¹ .

¹ EG_{JMR,export} ; EG_{JMR,import}; summation EG_{gross export, y} and summation EG_{total export, y} used in the apportioning procedure as described in 3.3 of the MR.

	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 PPA/13/.
	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 of the meters is annual.
	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, or as per the manufacturer's specifications?	Yes. The calibration frequency is in line with the monitoring plan 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 NABL Accredited entity/06/.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters installed at Varekarwadi , Bhambarwadi and Kadvekhurd site was delayed during the current monitoring period. The PP has applied the error factor for the considered delayed period. Delay in calibration of meters is appropriately addressed (please refer discussion under heading "calibration of meters" in this section of this report for further details).

	How were the values in the monitoring report verified?	Cumulative value of $EG_{y,net}$ for entire monitoring period is reported in the monitoring report/04/, however monthly values are reported in the ER calculation sheet/05/. The monthly values were verified from the credit notes issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was verified as 76,076.77 MWh (After applying the error factor due to delayed calibration).
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of $EG_{y,net}$ 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?	On site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
	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	CL #1 ,CAR #1, CAR #2 and CAR #3 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.	

Parameter	Electricity exported to 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 is calculated from measured parameter as (a) Monthly Export and Import Readings of Wind Farm (JMR Reading) and (b) Summation of Controller Reading of project WTGs and non-project WTGs. The parameter is reported monthly in the credit note, which is prepared for each project developer separately.
	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/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However, the input values ² used to calculate the value of this parameter are continuously monitored, hourly measured and monthly recorded. The WTGs belongs to project activity are connected to different feeders and each feeder have exclusive dedicated metering arrangement at project site. Also, the WTGs of other

² EG_{JMR,export}; EG_{JMR,import}; summation EG_{gross export, y} and summation EG_{total export, y} used in the apportioning procedure as described in 3.3 of the MR.

		project (non-project activity) are also connected to these feeders. The electricity generated by all the WTGs (project and non-project) is been fed to the Indian grid and monthly generation of all the WTGs at each feeder reading is recorded by the representatives MSEDCL in the presence of WWIL officials in the form of JMR. Based on the data recorded in the JMRs and generation recorded through controller meter at individual WTG, electricity supplied to the grid by the project activity is calculated by MSEDCL, using the apportioning procedure and credit note for each project developer is prepared.
	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}) is 0.2s, which is as per the registered PD/01/ which is as per the norm defined in the PPA/13/.
	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 of the meters is annual.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring	Yes. The calibration frequency is in line with the monitoring plan as outlined in the registered

	plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	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 NABL Accredited entity/06/.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters installed at Varekarwadi , Bhambarwadi and Kadvekhurd site was delayed during the current monitoring period. The PP has applied the error factor for the considered delayed period. Delay in calibration of meters is appropriately addressed (please refer discussion under heading "calibration of meters" in this section of this report for further details).
	How were the values in the monitoring report verified?	Cumulative value of EG_{export} for entire monitoring period is reported in the monitoring report, however monthly values are reported in the ER calculation sheet/05/. The monthly values were verified from the credit notes/08/ issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was verified as 76,158.08 MWh (After applying the error factor due to delayed calibration).
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG_{export} 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?	On site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
	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	CL #1 ,CAR #1, CAR #2 and CAR #3 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.	

Parameter	Electricity imported from 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 is calculated from measured parameter as (a) Monthly Export and Import Readings of Wind Farm (JMR Reading) and (b) Summation of Controller Reading of project WTGs and non-project WTGs. The parameter is reported monthly in the credit note, which is prepared for each project developer separately.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered

	methodology? (Yes / No)	PD/01/ and monitoring methodology/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However, the input values³ used to calculate the value of this parameter are continuously monitored, hourly measured and monthly recorded. The WTGs belongs to project activity are connected to different feeders and each feeder have exclusive dedicated metering arrangement at project site. Also, the WTGs of other project (non-project activity) are also connected to these feeders. The electricity generated by all the WTGs (project and non-project) is been fed to the Indian grid and monthly generation of all the WTGs at each feeder reading is recorded by the representatives MSEDCL in the presence of WWIL officials in the form of JMR. Based on the data recorded in the JMRs and generation recorded through controller meter at individual WTG, electricity supplied to the grid by the project activity is calculated by MSEDCL, using the apportioning procedure and credit note for each project

³ $EG_{JMR,export}$; $EG_{JMR,import}$; summation $EG_{gross\ export, y}$ and summation $EG_{total\ export, y}$ used in the apportioning procedure as described in 3.3 of the MR.

		developer is prepared.
	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_{import}) is 0.2s, which is as per the registered PD/01/ which is as per the norm defined in the PPA/13/.
	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 of the meters is annual.
	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, or as per the manufacturer's specifications?	Yes. The calibration frequency is in line with the monitoring plan 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 NABL Accredited entity/06/.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters installed at Varekarwadi , Bhambarwadi and Kadvekhurd site was delayed during the current monitoring period. The PP has applied the error factor for the considered delayed period. Delay in calibration of meters is appropriately addressed (please refer discussion under heading "calibration of meters" in this section of this report for further details).

	How were the values in the monitoring report verified?	Cumulative value of EG_{import} for entire monitoring period is reported in the monitoring report, however monthly values are reported in the ER calculation sheet/05/. The monthly values were verified from the credit notes/08/ issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was verified as 81.31 MWh (After applying the error factor due to delayed calibration).
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG _{import} 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?	On site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
	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	CL #1 ,CAR #1, CAR #2 and CAR #3 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.	

Parameters fixed ex ante:

EFOM,y; tCO₂e/MWh: it is the operating margin emission factor of Indian grid, considered fixed at the time of validation under renewal crediting period. Value of this parameter reported in the MR/ER sheet as 0.9941 tCO₂e/MWh which is consistent with the registered PD/01/.

EFBM,y; tCO₂e/MWh: it is build margin emission factor of Indian grid fixed at the time of validation under renewal crediting period. Value of this parameter reported in the MR/ER sheet as 0.9285 tCO₂e/MWh which is consistent with the registered PD/01/.

EFgrid,y ; tCO₂e/MWh: it is the combined margin emission factor of Indian grid, considered fixed at the time of validation under renewal crediting period. Value of this parameter reported in the MR/ER sheet as 0.9777 tCO₂e/MWh is consistent with the registered PD/01/.

CALIBRATION OF METERS:

During the verification assessment of the project activity, accuracy of all the metering have been checked and found appropriate. The installation and working conditions of the meters were checked during the on-site inspection and were found to be satisfactory. Accuracy class of all the meters is 0.2s. Calibration frequency is of all the meters is annual.

Details of meters are provided in below table:

Site Location	Meter Sr. No.	Calibration Date	Calibration due date (As per the monitoring plan)	Calibration due date (As per national standard)	Calibration delay (Y/N)
Kadvekhurd	04760188	13/08/2018	12/08/2019	12/08/2022	Y
Varekarwadi (Feeder-F1)	5269382	29/05/2018	28/05/2019	28/05/2022	Y
Bhambarwadi (Feeder-F1)	16595516	24/04/2018	23/04/2019	23/04/2022	Y
Bhambarwadi (Feeder-F3)	04862747	02/05/2018 and 01/05/2019	30/04/2020	30/04/2024	N
Panchpatta (Feeder-F1)	14831531	20/03/2018 & 18/03/2019	17/03/2020	17/03/2024	N
	14831520	20/03/2018 & 18/03/2019	17/03/2020	17/03/2024	N
	14831522	20/03/2018 & 18/03/2019	17/03/2020	17/03/2024	N
	14831533	27/03/2018 & 27/03/2019	26/03/2020	26/03/2024	N

Assessment on delay in calibration:

It is evident from the above table that calibration for the meters installed at Varekarwadi , Bhambarwadi and Kadvekhurd site were not carried out as per the frequency mentioned in the registered monitoring plan as shown in the below table.

Site location/Feeder No.	Calibration date(s)	Calibration delay period	Error factor applied (period)
Varekarwadi (F1)	29/05/2018	28/05/2019 to 31/12/2019	01/05/2019 to 31/12/2019
Bhambarwadi (F-1)	24/04/2018	23/04/2019 to 31/12/2019	01/04/2019 to 31/12/2019
Kadvekhurd	13/08/2018	13/08/2019 to 31/12/2019	01/08/2019 to 31/12/2019

Accordance with the guidelines outlined under paragraph 366(a) of VVS for PAs version 02.0, an error factor 0.2% had to be applied for both export & import i.e. the measured values in the delayed calibration period. However, the monthly credit notes issued by the state utility only provides the calculated value of electricity exported and imported by the project activity. Hence the error factor – 0.2% is applied for export values and +0.2% for import values.

The approach followed by the PP was found to be conservative and appropriate due to following reasons:

- As verified through section 11.02 of PPA/14/, state utility (MSEDCL is sole entity responsible for calibration and PP do not have any intervention with reference to the calibration and maintenance of energy meters.
- As per the Central Electricity Authority (CEA) Notification No. 502/70/CEA/DP&D dated 17/03/2006 which is considered as national standard mentions that “All interface meters shall be tested at least once in five years.” Hence, the energy meters calibration can be considered still valid.
- Under section 10.05 Clause (i) & (ii) Official of state utility (MSEDCL) and representative of PP jointly read the metering system on first day of every month, also if the metering system and/or any component thereof are found to be outside the acceptable limits of accuracy or not functioning properly, it shall be repaired, re-calibrated or replaced by MSEDCL as soon as possible.
- The assessment team has interviewed the site personnel with reference to the functioning of metering system and confirmed that all the meters were working properly during the current monitoring period.

- It is worthy to note that, the state utility (MSEDCL) is a Government Organization and a 3rd party with respect to this VCS project and also the purchaser of electricity supplied to the grid by project, hence, the state utility ensures that the energy meters are in proper working condition, because all monetary transactions done based on these meter readings.

It is worthy to note that the billing cycle for the project activity starts from 1st day and ends on last day of the every month, hence the error factor is applied to the relevant parameter for the entire months falls under delayed calibration period, during the current monitoring period. The approach followed by the PP was found to be conservative and appropriate, hence accepted.

The verification team has checked the latest calibration certificates for all the meters and confirmed that the meters were working satisfactorily and error in the meters was under permissible limits. Hence it can be concluded that the approach followed by the PP is conservative and in line with the guidelines provided under paragraph 366 (a) of VVS for PAS version 02.0.

Conclusion:

Meters used to measure the parameters are of accuracy class 0.2s, as verified through calibration certificates/06/ and also physical inspection during the site visit. The CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006 and its amendments Notified on 26/06/2010 No. 502/6/2009/DP&D/D-I /17/ which is considered as national standard, mentions that for voltage of 650 V up to 33 Kv, 0.5s accuracy class or above is recommended. Hence, the accuracy classes of 0.2s for the energy meters installed at the project activity site are found to be appropriate.

The details of monitoring equipment are involved in the project activity and their calibration details/06/ are mentioned in the table under section 3.3 of the VCS MR/04/. The monitoring equipment consists of a main and check meter at the state utility substation. The meters have been physically inspected during the site visit and the meter details are found to be consistent with that observed during the site visit. The CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006/17/ which is considered as national standard mentions that "All interface meters shall be tested at least once in five years." Hence, the stipulated calibration frequency annual is appropriate. The date of calibration has been verified against the calibration certificates/06/. The registered VCS PD & MR /04/ and site visit observations confirm that the metering equipment are sealed and calibrated by the state utility.

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 (ACM0002 Version 17) 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:

$$BE_y = EG_y * EF_y$$

Where,

BE_y is the baseline emissions in year y, tCO₂e

EG_y is the net electricity supplied in MWh

EF_y is the Grid Emission Factor in tCO₂e/MWh

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

$$\text{Net Emission reduction} = BE_y - PE_y - LE_y$$

Where,

BE_y is baseline emissions

PE_y is project emissions

LE_y is leakage emissions

As per the clause 36 of applied methodology ACM0002 version 17, "For most renewable energy power generation project activities", $PE_y = 0$. Since the project activity is renewable energy power generation hence the values of the $PE_y = 0$.

Also the project activity is Greenfield power plant, hence no leakage emissions is to be considered, thus $LE_y = 0$

Therefore,

$$\text{Net Emission Reductions} = BE_y - 0 - 0$$

$$= BE_y$$

$$= 76,076.77 * 0.9777$$

$$= 74,380 \text{ tCO}_2\text{e (rounded down value)}$$

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.

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 CONCLUSION

LGAI Technological Center, S.A. (also referred to as Applus+ Certification), contracted by Wind World (India) Ltd., to perform the independent verification of the emission reductions for the VCS project activity (VCS ID- 489) “44 MW Bundled Wind Power Project in Maharashtra managed by Enercon India” in India for the monitoring period 01/11/2018 – 31/12/2019 as reported in the Monitoring Report Version 2.1 dated 24/03/2020. The Wind World (India) Limited 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

Applus+ Certification commenced the verification on the basis of the baseline and monitoring methodology ACM0002 version 17, the monitoring plan contained in the registered VCS PD Version 03, dated 01/02/2017 and VCS guidelines version 4.0, Monitoring Report Version 2.1 dated 24/03/2020 as per the process described under Section 2 of this report.

Applus+ Certification 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. Applus+ Certification planned and performed the verification by obtaining evidence and other information and explanations that Applus+ Certification 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 01/11/2018 – 31/12/2019 are fairly stated in the Monitoring Report Version 2.1 dated 24/03/2020. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology ACM0002 version 17, and the VCS standard.

Verification period: From 01/11/2018 – 31/12/2019 (including both days)

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)
2018 (01/11/2018 to 31/12/2018)	3,728	0	0	3,728
2019 (01/01/2019 to 31/12/2019)	70,652	0	0	70,652
Total	74,380	0	0	74,380

APPENDIX 1: DOCUMENT REFERENCES

S.No	Title of Document	Version	Date
1.	Registered VCS PD	03	01/02/2017
2.	Validation report for the Renewal of the crediting period - prepared by ESPL	2.0	22/02/2017
3.	VCS Monitoring Report	01	10/02/2020
3.1	VCS Monitoring Report	02	14/03/2020
4.	VCS Monitoring Report (Final)	2.1	24/03/2020
5.	ER spread sheet	01	10/02/2020
		02	14/03/2020
6	Certificates of Calibration for all the meters belongs to project activity issued by MSEDCL testing division:	-	-
7.	Invoice issued by PP to state DISCOM	For the period 01/11/2018 to 31/12/2019	-
8.	Monthly Energy Credit notes issued by state DISCOM	For the period 01/11/2018 to 31/12/2019	-
9.	"Consolidated baseline methodology for grid-connected electricity generation from renewable sources", ACM0002,	17.0	-
10.	CEA Database	version 11	-
11.	On-site assessment, interviews of plant staff	-	02/03/2020
12.	Commissioning certificate for all the WTGs of the project activity issued by MSEDCL	-	-
13.	Power Purchase Agreement, between Entities involved (other investors) and MSEDCL	-	-
14.	VCS webpage for the project, VCS ID 489	-	-
15.	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	-	-
16.	VCS Standard	Version 4.0	19/09/2019
17.	VCS Program Guide	Version 4.0	19/09/2019
18.	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the same period	-	-
19.	Fresh Certificate of Incorporation Consequent up on change of name issued by the Ministry of Corporate Affairs (GOI), dated	-	-

S.No	Title of Document	Version	Date
	01/01/2013 Snap shot of APX VCS registry		

APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
ABT	Availability Based Tariff
BEF	Baseline Emission Factor
BM	Build Margin
CAR	Corrective Action Request
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CL	Clarification Request
CMS	Central Monitoring System
CMP	Conference of Parties Serving as Meeting of Parties
CO2	Carbon dioxide
DISCOM	Distribution Company
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
MEDA	Maharashtra Energy Development Agency
MFR	Multi-Function Relay
MR	Monitoring Report
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MW	Megawatt
MWh	Megawatt-hour
O&M	Operation and Maintenance
PD	Project Description

PLF	Plant Load Factor
PP	Project Proponent
QA/QC	Quality Assurance and Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
WEC	Wind Energy Convertor
WEG	Wind Energy Generator
WTG	Wind Turbine Generator
VCS	Voluntary Carbon Standard
VCSA	Voluntary Carbon Standard Association
VCS PD	VCS Project Description
VCUs	Voluntary Carbon Units

APPENDIX 3: FINDINGS OVERVIEW

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

FAR ID	N/A	Section no.	N/A	Date : N/A
Description of FAR				
N/A				
Project participant response				Date :
N/A				
Documentation provided by project participant				
N/A				
DOE assessment				Date:
N/A				

Table 2. CL from this verification

CL ID	01	Section no.	Monitoring Report	Date : 02/03/2020
Description of CL				
1. Please clarify why the total GHG emission reductions or removals generated in this monitoring period are not reported in section 1.1 of the MR. 2. Previous monitoring period was limited to Oct 2018, so please justify the start date of current monitoring period as 01 Jan 2019. 3. Geo co-ordinates of the WTGs are not reported appropriately in section 1.7 of the MR. 4. Please submit declaration confirming that the GHG Emission reductions or removals generated by the project activity will not be used for compliance with an emission trading program or to meet binding limits on GHG Emissions.				
Project participant response				Date : 14/03/2020

1) The total GHG emission reductions generated during the current monitoring period has been reported under the section 1.1 of the MR. Please refer to the 2 nd para under the section 1.1 2) The current monitoring period is in continuation to the crediting months after the completion of the pervious monitoring period. Thus, start date of current monitoring period is 01 Nov 2018. PP has made the required corrections in the MR in all respective sections. 3) There were some formatting errors in the table containing the geo coordinates. The values insider the table is now revised under the section 1.7 of the MR. The revised version is in line with the accurate information which can be further verified from the renewal PD and also from the previous verifications. 4) The required declaration has been submitted to DOE.	
Documentation provided by project participant	
1) Revised VCS MR, version 02, dated 14 March 2020 2) Revised ER sheet, version 02, dated 14 March 2020 3) Declaration from PP	
DOE assessment	Date: 21/03/2020
1. The PP has reported the total GHG emission reductions or removals generated in this monitoring period in section 1.1 of the MR, found to be appropriate, hence accepted. 2. Start date of monitoring period is corrected in the MR and ER sheet, found to be satisfactory. 3. Geo co-ordinates of the WTGs are corrected in section 1.7 of the MR and found consistent with the PD. 4. The PP has submitted the declaration confirming that the GHG Emission reductions or removals generated by the project activity will not be used for compliance with an emission trading program or to meet binding limits on GHG Emissions, found appropriate, hence accepted.	
CL #1 is closed.	

Table 3. CAR from this verification

CAR ID	01	Section no.	Monitoring Report	Date : 02/03/2020
Description of CAR				
1. Please clarify why the calibration details of the meters covering the current monitoring period is not provided in the MR. 2. Please submit the calibration certificates of all the meters valid for the current monitoring period.				
Project participant response				Date : 14/03/2020
1) The details of meter calibration have been submitted to DOE during the on-site verification. The details are now included under the MR. 2) The calibration certificates are submitted to DOE.				
Documentation provided by project participant				
1) Revised MR, version 02, dated 14 March 2020 2) Calibration Certificates.				
DOE assessment				Date: 21/03/2020
Calibration details of the meters covering the current monitoring period is provided in the MR and found to be correct and consistent with the calibration certificates provided by the PP. CAR #1 is closed.				

CAR ID	02	Section no.	Monitoring Report	Date : 02/03/2020
Description of CAR				
Please clarify why the project deviations taken during the previous and current monitoring period are not described in section 2.3.2 of the MR, in line with the guidance provided under section 3.18.2 of VCS standard v.4.				
Project participant response				Date : 14/03/2020
PP would like to clarify that the information related to deviations of previous monitoring period have been already included under the section 3.2 of the VCS MR template version 4.				
Documentation provided by project participant				
Revised MR, version 02, dated 14 March 2020				
DOE assessment				Date: 21/03/2020
Project deviations considered during previous monitoring period are described, however it is identified that calibration of the energy meters got delayed in the current monitoring period but this instance is not considered as project deviation. Please clarify				
Project participant response				Date : 24/03/2020
PP has revised the specific section of the MR and delay in meter calibration identified for the current monitoring period has been included as project deviation. Also, the similar deviations considered and approved during the last two monitoring periods of the current crediting period have been reported in the MR. Since deviation related to previous crediting period is not relevant, hence excluded from the MR.				
Revised MR (version 02.1 with date 24 March 2020) is submitted to DOE.				

CAR ID	03	Section no.	Monitoring Report	Date : 02/03/2020
Description of CAR				
Please submit the ER calculation sheet for the current monitoring period and also submit the following documents:				
- Monthly credit notes issued by MSEDCL - Monthly invoices raised to state utility - PPA signed for project activity - Commissioning certificates of all WTGs.				
Project participant response				Date : 14/03/2020
PP is submitting the ER calculation sheet for the current monitoring period and also the required supporting documents have been submitted to DOE.				
Documentation provided by project participant				
- ER sheet, version 02, dated 14 March 2020 - Monthly Credit Notes for all the months and sample invoice copies. - Copies of PPAs - Copies of commissioning certificates.				
DOE assessment				Date: 21/03/2020
The PP has submitted the requested documents and found to be satisfactory. CAR #3 is closed.				

Table 4. FAR from this verification

FAR ID	N/A	Section No.	N/A	Date: N/A
Description of FAR				
N/A				
Project participant response				Date: N/A
N/A				

Documentation provided by project participant	
N/A	
DOE assessment	Date: N/A
N/A	

APPENDIX 4: COMPETENCY STATEMENTS

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of Applus+ Certification.

The composition of audit team shall be approved by the Applus+ Certification ensuring that the required skills are covered by the team.

The three qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Qualification	Coverage of scope	Coverage of technical Area	Financial aspect	Host country Experience	Attendance to the On-Site Assessment
Vivek Kumar Ahirwar	Lead Auditor (LA)	Yes (1)	Yes (1.2)	N/A	Yes	Yes
Vivek Kumar Ahirwar	Technical Expert (TE)	Yes (1)	Yes (1.2)	N/A	Yes	Yes
Simon Shen	Technical Reviewer (TR)	Yes (1)	Yes (1.2)	N/A	N/A	N/A

The curricula vitae of the DOE's team members are provided below:

Vivek Kumar Ahirwar is a BEE-Certified Energy Auditor by Govt of India with over eight years of relevant experience in energy efficiency, energy audit, thermal and electrical energy generation technology from renewable source and energy conservation in energy intensive industries, designated consumers and commercial buildings, implementation of energy conservation building codes, research, process and

green building projects. He is a certified lead auditor for ISO 14001 EMS and 14064. He has experience under various categories of projects stating from renewable to waste to supercritical projects and WCD. He has successfully audited more than 100 GHG (CDM/VCS/GS) projects in different states across the India. He has done Master in Technology (Energy Management) from a premier institute, School of Energy & Environmental Studies, DAVV, Indore (M.P.), India and Bachelor of Engineering (Mechanical Engineering) from Govt. Engineering college, Rewa, RGPV, India.

Simon Shen (master degree in thermal energy engineering, bachelor degree in environmental engineering) is a lead auditor appointed by Applus+ certification for the GHG project assessment. He is based in Shanghai. He has several years of work experience in environmental protection field. Before he joined Applus+ certification, he had been worked for TÜV SÜD as a GHG validator/verifier and ISO 9001/14001 lead auditor for 3.5years.