




**Verification and certification report form for  
CDM project activities  
(Version 04.0)**

*Complete this form in accordance with the instructions attached at the end of this form.*

**BASIC INFORMATION**

<b>Title and UNFCCC reference number of the project activity</b>	5.10 MW Wind Power Project by Shyam Metals & Energy Limited in Maharashtra, India (UNFCCC Ref. No. 9697 <sup>1</sup> )		
<b>Scale of the project activity</b>	<input type="checkbox"/> Large-scale <input checked="" type="checkbox"/> Small-scale		
<b>Version number of the verification and certification report</b>	01		
<b>Completion date of the verification and certification report</b>	29/10/2021		
<b>Monitoring period number and duration of this monitoring period</b>	Monitoring period number: 03 Monitoring period: 01/01/2019 to 31/12/2020		
<b>Version number of the monitoring report to which this report applies</b>	02		
<b>Crediting period of the project activity corresponding to this monitoring period</b>	23 Jul 13 - 22 Jul 23 (Fixed)		
<b>Project participants</b>	M/s Shyam Metals & Energy Limited EKI Energy Services Limited		
<b>Host Party</b>	India		
<b>Applied methodologies and standardized baselines</b>	<b>Methodology:</b> AMS-I.D. ver. 17 - Grid connected renewable electricity generation <b>Standardized Methodology:</b> Not Applicable		
<b>Mandatory sectoral scopes</b>	1: Energy industries (renewable - / non-renewable sources)		
<b>Conditional sectoral scopes, if applicable</b>	NA		
<b>Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD</b>	17,049 tCO <sub>2</sub> e		
<b>Certified amount of GHG emission reductions or GHG removals for this monitoring period</b>	Amount before 1 January 2013	Amount from 1 January 2013 until 31 December 2020	Amount from 1 January 2021
	0 tCO <sub>2</sub> e	13,066 tCO <sub>2</sub> e	0 tCO <sub>2</sub> e
<b>Name and UNFCCC reference number of the DOE</b>	LGAI Technological Center, S.A. (Applus+ Certification). UNFCCC reference number: E-0032		

<sup>1</sup> <https://cdm.unfccc.int/Projects/DB/RINA1374589833.08/view>

<b>Name, position and signature of the approver of the verification and certification report</b>	<p>Mr. Agustín Calle de Miguel</p> <p><i>Applus+ Certification CDM Technical Manager</i></p> <p>Signature: </p>
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## SECTION A. Executive summary

The proposed CDM project activity is a wind power project in the state of Maharashtra, comprising six Wind Turbine Generators (WTGs), with a cumulative capacity of 5.10 MW. The project activity consists of six units of 850 kW wind turbine generators.

The purpose of the project is to generate 8,935 MWh (estimation as per registered PDD) of average electricity per annum, using the kinetic energy of wind, thus resulting in zero emissions during electricity production. The power generated is supplied to the state electricity board and replace the equal amount of power, which would have been generated by fossil fuel-dominated NEWNE grid (now Indian grid).

The project activity is combination of freshly installed WTGs with an aggregate capacity of 5.1 MW. The project activity is using technically and commercially proven wind turbines from Gamesa Wind Turbines Pvt Ltd. The applied technology is considered to be one of the most environmentally friendly and safe technologies available as the operation of the wind turbine does not emit any GHGs or any other harmful gases unlike the operation of conventional power plants. The project uses the kinetic energy in wind to drive the wind turbine blades, which generates electricity.

During the present monitoring period 01/01/2019 to 31/12/2020 the project activity has achieved emission reductions 13,066 tCO<sub>2</sub>e by supplying net electricity 13,713.73MWh to grid.

**1. Verification Scope:** The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the DOE. The verification is based on the submitted monitoring report, the validated and registered PDD as well as its validation report, the applied monitoring methodology, relevant decisions, clarifications and guidance from the CMP and the EB and any other information and references relevant to the project activity's resulting emission reductions. These documents are reviewed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures and related rules and guidance. Based on the requirements in the "CDM validation and verification standard for project activities, Version 03", Applus+ Certification has applied a rule-based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion. The verification considers both quantitative and qualitative information on emission reductions. The verification is not meant to provide any consultancy towards the client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the monitoring activities.

## **2. Methodology:**

LGAI Technological Center, S.A. (Applus+ Certification) – Hereinafter referred as Applus + Certification - approach to the verification is a two-stage process.

In the 1<sup>st</sup> stage, Applus + Certification completed a strategic review and risk assessment of the project activities and processes in order to gain a full understanding of:

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

Applus+ Certification used a Periodical Verification Checklist which, based on the risk-based assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

## **3. Desk Review**

In the 1<sup>st</sup> stage, using the Verification Checklist, Applus+ Certification verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a site visit and a desk review of the Monitoring Report. This Verification Report describes the findings of this assessment.

The Monitoring Report version 01 submitted by the PP was made publicly available on the UNFCCC website before the verification activities started. The published MR was assessed based on all the relevant documents. The aim of the assessment in the desk review was to:

- verify the completeness of the data and the information presented in the MR;
- Check the compliance of the MR with respect to the monitoring plan depicted in the registered PDD and verify that the applied methodology was carried out. Particular attention to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures was paid;
- Evaluate the data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

#### **4. Assessment team**

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

The composition of audit team shall be approved by the LGAI Technological Center, S.A. (Applus+ Certification) ensuring that the required skills are covered by the team.

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

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- 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	Role	SS Coverage	TA Coverage	Financial aspect
Mr. Pankaj Kumar	LA/TE	YES	YES	NA
Mr. Simon Shen	TR	YES	YES	NA

The curriculum vitae of the DOE's Verification team members is provided in Appendix 2 of this report.

#### **5. Review of Documentation:**

The Monitoring Report version 01 submitted by the PP was made publicly available on the UNFCCC website before the verification activities started. The published MR was assessed based on all the relevant documents. A cross-check between information provided and information from other sources has been done. A complete list of documents reviewed is available in Appendix 3 of this report.

#### **6. On-site Assessment and follow-up Interviews:**

As a part of the verification, the Remote audit (detailed out in Section D.2) has been performed by the assessment team.

The objective of the remote audit is to:

- Confirm the implementation and operation of the project;
- Review the data flow for generating, aggregating and reporting the monitoring parameters;

- Confirm the correct implementation of procedures for operations and data collection;
- Cross-check the information provided in the MR documentation with other sources;
- Check the monitoring equipment against the requirements of the PDD and the approved methodology, including calibrations, maintenance, etc.
- Review the calculations and assumptions used to obtain the GHG data and ER;
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.

The details are mentioned in section D.2 of this report.

## **7. Quality of Evidences**

Sufficient evidence covering the full verification period in the required frequency is available to verify the figures stated in the final MR. The source of the evidences will be discussed in Appendix 3 of this report. Specific cross-checks have been done in cases that further sources were available. The monitoring report's figures were checked by the assessment team against the raw data. The data collection system meets the requirements of the monitoring plan as per the methodology.

## **8. Reporting of Findings**

As an outcome of the verification process, the assessment team can raise different types of findings.

Where a non-conformance arises the assessment team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- a) Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- b) Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- c) Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

The assessment team shall raise a Clarification Request (CL) if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

All CARs and CLs raised during verification shall be resolved prior to submitting a request for issuance.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period. All the CARs/CLs/FARs are being discussed in Appendix 4 of this report

## **9. Internal Quality Control**

As a final step for Verification assessment, the final documentation, including the Verification Report, has to undergo an internal quality control by the Technical Reviewer(s) to be approved.

Details of the Technical Reviewer(s) are provided within the Verification Report in Section B.2. and Appendix 2 for further references of knowledge and capability to conduct the quality checking.

After the Technical Review process, the final documentation may undergo a final quality checking process called Administrative Review, done by the Applus+ Certification's Project Manager and/or Technical Support. For final approval, the final set of documents are prepared by the DOE's Technical Manager or its deputy and signed by the authorized signatory of the DOE.

In case any of the persons performing this final internal quality control approval process has acted as a part of the Assessment Team or Technical Review team, the approval can only be given by DOE's authorized personnel who are not part of those teams.

If the final set of documents has been satisfactorily approved, a Request for issuance is submitted to the UNFCCC CDM EB along with the relevant documents

**SECTION B. Verification team, technical reviewer and approver****B.1. Verification team member**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Verification findings
1.	Lead Auditor/ Technical Expert	O R	Kumar	Pankaj	True Quality Certifications private Limited- Outsourced entity	Yes	No	Yes	Yes

**B.2. Technical reviewer and approver of the verification and certification report**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1	Technical reviewer	EI	Shen	Simon	Applus+ Certification
2.	Approver	IR	Calle de Miguel	Agustín	Applus+ Certification

**SECTION C. Application of materiality****C.1. Consideration of materiality in planning the verification**

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
1	Human errors: Readings from Meters (if not automatic)	LOW	Human error is likely to occur if the monitoring personnel are not trained well or inexperienced in data recording procedures and monitoring processes.	All the personal are well trained to monitor and collect data and thus risk associated with Human error is minimized. Assessment team checked the training records to confirm that all the personal are well trained to handle the activities related to monitoring. Assessment team checked the training records for the complete monitoring period and confirm that the personal are well trained to monitor and collect data for the project activity.
2	Human error: Quantification of emission reduction	LOW	Use of spread-sheets without adequate	All the JMR and invoices for the complete monitoring period are checked and thus the assessment team confirms that the ER value is conservative and correct.

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
			data control, changes/updates, version tracking, traceability and security	

## C.2. Consideration of materiality in conducting the verification

In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. There are no material errors, overestimation of ER, omission or misstatement

## SECTION D. Means of verification

### D.1. Desk/document review

The verification was performed primarily based on the review of the monitoring report and the supporting documentation. This process included review of data and information presented to verify their completeness and review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment used to include calibration requirements, and the QA/QC procedures, and an evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of emission reduction. Latest version is v9

The initial MR Version 01 submitted by the project participant and additional background documents related to the emission reductions are reviewed as an initial step of the verification process. The subsequent step involved the identification of corrective action requests, clarification requests and Forward action request (CAR, CL and FAR) which are presented in Appendix 4 of this report. As a result of these findings, the MR is revised to MR Version 02. A complete list of all documents and records reviewed is as attached in Appendix 03 of this report.

### D.2. On-site inspection

No Physical verification was conducted by the DOE for this CDM verification due to high threat of COVID-19 in entire state of India. Government of India has ordered nationwide lockdown from 25/03/2020<sup>2</sup>. Latter during second wave of pandemic it was further imposed by various state governments state-wise lockdown and quarantine rules<sup>3</sup>. State of Maharashtra has imposed various restrictions on public activities & travelling.

Hence, in line with the guidance to relax mandatory site visits by DOEs due to COVID 19 pandemic published by UNFCCC, DOE has taken alternative measures to arrive at conservative estimation of emission reductions achieved, applying standard auditing techniques for verification, as referred in section 9.1.3 of the "CDM validation and verification standard for project activities, Version 03". Moreover, as verified from the ERPA provided by PP, PP has commitment of supplying of CERs to buyer by Dec. 2021. So, the site visit cannot be postponed to a later date. Thus, as per guidance to relax mandatory site visits by DOEs due to COVID 19 pandemic, assessment team have conducted remote audit and used standard auditing techniques to verify information and compliance with applicable requirements to the extent possible, to ensure the completeness and credibility of the audit.

<sup>2</sup> [https://www.mha.gov.in/sites/default/files/MHADOLrDt\\_3052020.pdf](https://www.mha.gov.in/sites/default/files/MHADOLrDt_3052020.pdf)

<sup>3</sup> <https://www.india.com/maharashtra/maharashtra-lockdown-news-today-7-september-2021-third-wave-arrived-in-nagpur-fresh-restrictions-to-be-announced-soon-in-mumbai-nagpur-pune-uddhav-thackeray-big-announcement-awaited-4939878/>

The remote audit was conducted through Skype and audit was attended by PP representative as well as consultant Details of attendees is given below in section D.3.



Duration of on-site inspection: 13/09/2021 (Remote Audit through Skype)				
No.	Activity performed on-site	Site location	Date	Team member
1.	<p>The verification team conducted visit to the project site to confirm the information and to resolve issues identified in the document review. An on-site assessment was conducted as a part of verification activity and involved:</p> <p>1) an assessment of the implementation and operation of the CDM project activity as per the registered PDD</p> <p>2) a review of information flows for generating, aggregating and reporting of the monitoring parameters</p> <p>3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan</p> <p>4) a cross-check between information provided in the MR and data from other sources</p> <p>5) a check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology</p> <p>6) a review of calculations and assumptions made in determining the GHG data and ERs, and</p> <p>7) an identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters</p>	<p>The detail location of the project is as follows:</p> <p>District : Sangli State : Maharashtra Country: India</p>	13/09/2021	Mr. Pankaj Kumar

As referred above, the objective of the remote assessment was to verify the following issues:

- Confirm the implementation and operation of the project in line with CDM PDD: the project activity is implemented as per the registered PDD and there is no change in capacity or design of the project activity since commissioning. Same was confirmed from commissioning certificates, technical specifications of the turbines & recent site photographs, PPA, interviews with PP/Site in charge and JMR as well as invoices raised by PP towards state utility;
- Review the data flow for generating, aggregating and reporting the monitoring parameters: JMR procedures are followed at the project site in line with the state utility practice and is in line with the registered PDD. JMR procedure is confirmed during the interviews with PP and assessment team also checked entire monthly JMRs issued by the state utility for the project activity with the values provided in the ER sheet for the calculations of the emission reductions;
- Confirm the correct implementation of procedures for operations and data collection: during interviews with PP, it was confirmed that implementation of procedures for operations and data collection is in line with registered PDD. Service provider is responsible for the operations, maintenance as well as maintaining other technical data of the project activity. Performance and operation data of hydro power plant controlled and maintained by service provider through the dedicated software and made available to the PP as & when required;
- Cross-check the information provided in the MR documentation with other sources: the information provided in the MR was crosschecked with the commissioning certificates, PPA, calibration certificates and JMRs are issued by Statutory authority and invoices are used for cross-checking;

- Check the monitoring equipment against the requirements of the PDD and the approved methodology, including calibrations, maintenance, etc.: monitoring meters are cross checked with the previous verification reports, interviews with PP, current photographs/videos submitted by PP and calibration is checked with the calibration certificates issued by State Utility authorized third parties;
- Review the calculations and assumptions used to obtain the GHG data and ER: calculation procedures and monthly generation data is checked with JMR and crosschecked with invoices;
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters: during interviews with PP, it was confirmed that quality control and quality assurance procedures are in place. Metering arrangements & JMR procedure is defined and controlled by state utility and PP do not have control on it. Assessment team checked all the monthly JMR values as well as crosschecked with the invoices and found that emission reductions are calculated conservatively.

Thus, to verify the implementation of project activity, onsite operation & maintenance, monitoring & management practices; assessment team has conducted skype call/telephonic interviews with onsite in-charge, O&M team and also had a detail discussion with the PP representative and reviewed third party statutory documents i.e. Commissioning certificates, Power Purchase Agreement, Complete set of JMRs covering monitoring period, Invoice (for cross check of Net electricity supplied to the grid as per revised PDD), training records, breakdown log, O&M schedule, complaint/feedback register and other relevant records.

After telephonic/Skype interviews with concerned onsite persons, document reviews & site videos/photographs submitted by PP; assessment team concluded that the project activity is still implemented and operated in-line with the registered PDD. There is no change in the project design or operation and monitoring practices at site which can alter the applicability of meth or additionality of the project activity. In addition to the interviews with PP, assessment team have checked the commissioning certificate, PPA and JMRs and found that the project activity is implemented as per the PDD, and Monitoring report submitted by the PP for current monitoring period. From review of JMR and invoices assessment team therefore of the opinion that project is implemented as described in the registered PDD and there is no change in monitoring practices as well as all monitoring parameters as envisaged in the PDD. All the monitored values are supported by the evidences i.e. JMRs and found that information provided in the MR is in line with the submitted evidences. Assessment team reviewed all the calibration certificates and found that monitoring meters are calibrated periodically. Detailed assessment provided later in Section E.7 of this report.

### D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Kumar	Mr. Prashant	PP representative	13/09/2019	As mentioned above in section D.2 of this report	Mr. Pankaj Kumar
2.	Yadav	Ms. Neetu	Consultant, EKIESL	13/09/2019	As mentioned above in section D.2 of this report	Mr. Pankaj Kumar

### D.4. Sampling approach

No sampling is used as the verification team has visited site along with the substations. The verification team has reviewed all the documents like commissioning certificates, JMR, Invoice etc.

### D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form	00	00	00
Compliance of the project implementation and operation with the registered PDD	00	00	00
Post-registration changes	00	00	00
Compliance of the registered monitoring plan with the	00	00	00

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
methodologies including applicable tools and standardized baselines			
Compliance of monitoring activities with the registered monitoring plan	00	00	00
Compliance with the calibration frequency requirements for measuring instruments	00	01	00
Assessment of data and calculation of emission reductions or net removals	00	00	00
Assessment of reported sustainable development co-benefits	00	00	00
Global stakeholder consultation	00	00	00
Others (please specify) – 1. ER sheet 2. JMR/share certificates	00	02	00
<b>Total</b>	<b>00</b>	<b>03</b>	<b>00</b>

## SECTION E. Verification findings

### E.1. Compliance of the monitoring report with the monitoring report form

<b>Means of verification</b>	The verification team has determined whether the monitoring report was completed using the valid version of the applicable monitoring report form. The verification team has checked whether all the sections of the monitoring report follow the guidelines provided in the template.
<b>Findings</b>	No findings were raised regarding this issue.
<b>Conclusion</b>	The MR was <b>web hosted</b> in version 08.0 of the MR form which was the current and active version in the UN platform. PP used the latest version of the MR template available on UN web site i.e., version 08 for correction of the CAR/CL raised and submitted the same to DOE for further assessment. The monitoring report has been prepared as per the instructions provided in the template. DOE has made the version 01 of the monitoring report covering the monitoring period from 01/01/2019 to 31/12/2020 publicly available through its dedicated interface on the UNFCCC CDM website before undertaking the remote audit for the verification on 17/08/2021. However, during the verification process, version of MR template changed to ver. 9.0. Accordingly, PP updated the MR into latest version of MR template. DoE checked the updated MR and confirm that there was no issues related to materiality. The verification team has concluded that the monitoring report was completed using the valid version of the applicable monitoring report form and is followed the guidelines contained in the template.

### E.2. Remaining forward action requests from validation and/or previous verifications

This is 3<sup>rd</sup> periodic verification of the project activity. No FAR was raised during the validation & previous verification of this project.

### E.3. Compliance of the project implementation and operation with the registered project design document

<b>Means of verification</b>	The verification team determined the conformity of the actual implemented project activity and its operation with the registered project design document. DOE has, by means of a desk review and a remote audit, assessed whether all physical features of the proposed CDM project activity proposed in the registered PDD are in place, and that the project participants have operated the CDM project activity as per the registered PDD.
<b>Findings</b>	No findings were raised regarding this issue.
<b>Conclusion</b>	The verification team has reviewed the commissioning certificates to conclude that the capacity of the project is same as mentioned in the registered PDD. The capacity does not change after the registration of the project activity as confirmed by the assessment team during verification remote audit. All the WTGs installed are in continuous operation. Same is confirmed during remote audit and evident from JMR and invoices raised. Scheduled & preventive maintenance is carried out as per manufacturer specification for the power plant. No unforeseen activity observed during the present verification which can alter the

applicability or additionality of the applied methodology. The details are checked by the assessment team from the plant log records and found correct.

The commissioning details are mentioned below:

Label	Survey Field No.	Village	Capacity	Make	Model No	Commissioning Date
GJN 47	19	Malal	0.85 MW	Gamesa	G58	26/09/2012
GJ 09 N1	122	Rampur	0.85 MW	Gamesa	G58	30/09/2012
GJ41	12	Malal	0.85 MW	Gamesa	G58	30/09/2012
GJ 43N	14	Malal	0.85 MW	Gamesa	G58	26/09/2012
GJN 5	151	Rampur	0.85 MW	Gamesa	G58	31/03/2012
GJN 7	150	Rampur	0.85 MW	Gamesa	G58	31/03/2012

Assessment team checked the latitude and longitude of the project activity during the remote audit with the help of Google earth, and GPS meters. Moreover, assessment team also checked the same with Google earth software and found that the detail of latitude and longitude as mentioned in the registered PDD is correct. The detail is as below:

Label	Survey Field No.	Village	Capacity	Make	Model No	Latitude (N)	Longitude (E)
GJN 47	19	Malal	0.85 MW	Gamesa	G58	17°00'57.82"	75°13'45.53"
GJ 09 N1	122	Rampur	0.85 MW	Gamesa	G58	17°00'29.01"	75°10'23.35"
GJ41	12	Malal	0.85 MW	Gamesa	G58	17°00'55.74"	75°13'17.98"
GJ 43N	14	Malal	0.85 MW	Gamesa	G58	17°00'55.97"	75°13'17.3"
GJN 5	151	Rampur	0.85 MW	Gamesa	G58	17°00'43.43"	75°09'29.04"
GJN 7	150	Rampur	0.85 MW	Gamesa	G58	17°00'35.58"	75°09'36.05"

The above details are checked by the assessment team during the verification remote audit, latitude and longitude are also checked via Google earth, and GPS meters during the remote audit & review of commissioning certificates. Same are found in-line with registered PDD. The detail also forms the part of Monitoring report and thus acceptable to the assessment team.

Assessment team checked the technical specification and details of the power plant/WTGs during the remote audit. The details are checked from the manufacturer technical specification as well from the physical visit/remote audit. The detail<sup>4</sup> as mentioned in the registered PDD is correct and hence there is no deviation envisaged in technical description as mentioned in the registered PDD.

Assessment team also checked the feeder details and found correct. The feeder details now are the part of revised MR version 02. The details are as below:

The Feeder wise WTG location is as follows

<sup>4</sup> <http://www.wind-power-program.com/Library/Turbine%20leaflets/Gamesa/Gamesa%20G58%20850kw.pdf>

	Feeder Location	WTGs Connected
	Feeder 1	GJN 05 & 07
	Feeder 2	GJ 43N & 47 N; GJ 41 N & 09 N1
	<p>No events or situations happened during the reported monitoring period which can alter the applicability of the applied methodology.</p> <p>The metering arrangement of the energy meter is provided in the revised MR version 02. The flow diagram is in conjugation with the onsite practice and thus acceptable to the DOE.</p> <p>Based on the documentary evidence of commissioning certificates and physical verification DOE concludes that the project was implemented as per the registered PDD.</p>	

**E.4. Post-registration changes****E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents<sup>5</sup>**

Not applicable for present Monitoring period.

**E.4.2. Corrections**

Not applicable for present Monitoring period.

**E.4.3. Changes to the start date of the crediting period**

Not applicable for present Monitoring period.

**E.4.4. Inclusion of a monitoring plan**

Not applicable for present Monitoring period.

**E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents**

Not applicable for present Monitoring period.

**E.4.6. Changes to the project design**

Not applicable for present Monitoring period.

**E.4.7. Changes specific to afforestation and reforestation project activities**

Not applicable for present Monitoring period.

<sup>5</sup> Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied (selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

### E.5. Compliance of the registered monitoring plan with applied methodologies, applied standardized baselines, and other applied methodological regulatory documents

<b>Means of verification</b>	The verification team determined whether the registered monitoring plan is in accordance with the applied methodology AMS-I.D. ver. 17- Grid connected renewable electricity generation including applicable tools.
<b>Findings</b>	No finding was raised on the registered monitoring plan.
<b>Conclusion</b>	The verification team is able to confirm that the monitoring plan contained in the registered PDD is in accordance with the approved methodology applied by the project activity, i.e. AMS-I.D. ver. 17- Grid connected renewable electricity generation and its applicable tools. The same is followed during remote audit and thus assessment team confirms that project activity comply with the requirement of Approved methodology and registered PDD.

### E.6. Compliance of monitoring activities with the registered monitoring plan

#### E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

<b>Means of verification</b>	The assessment team checked the registered PDD to confirm the ex-ante fixed parameter mentioned in the current monitoring report. Assessment team also interviewed the personal onsite to check further regarding the ex-ante values used for emission reduction calculation.
<b>Findings</b>	No finding were raised on the Data and parameters fixed ex ante.
<b>Conclusion</b>	<p><math>EF_{NEWNE, OM, y}</math>, <math>EF_{NEWNE, BM, y}</math>, <math>EF_{NEWNE, CM, y}</math> were mentioned as ex-ante fixed parameter. Assessment team checked the values, source of data, choice of data, purpose of the data mentioned in the MR from the registered PDD and confirms that the similar approach was considered for the current monitoring period also.</p> <p>The value for <math>EF_{NEWNE, OM, y}</math>, <math>EF_{NEWNE, BM, y}</math>, <math>EF_{NEWNE, CM, y}</math> were considered from the CO<sub>2</sub> baseline database (Version 07.0) published by Central Electricity Authority (CEA). The default value as mentioned in the registered PDD and MR are same. The value of combined margin in India is being given by CEA and thus assessment team conclude that the value is correct and appropriate. The default value in turn is used for baseline calculation as per the formula given in the registered PDD for the current monitoring period.</p> <p>The value used for emission reduction calculation for the present verification is as below (The values are same as per the registered PDD as confirmed by the assessment team during the desk review of registered CDM PDD dated 06/06/2013 version 04 ):</p> <p><math>EF_{NEWNE, OM, y} = 0.9842 \text{ tCO}_2/\text{MWh}</math></p> <p><math>EF_{NEWNE, BM, y} = 0.88588 \text{ tCO}_2/\text{MWh}</math></p> <p><math>EF_{NEWNE, CM, y} = 0.9528 \text{ tCO}_2/\text{MWh}</math></p>

#### E.6.2. Data and parameters monitored

<b>Means of verification</b>	The assessment team checked the registered PDD to confirm the ex-post parameter mentioned in the current monitoring report. Assessment team also interviewed the personal onsite to check further regarding the ex-post parameter monitoring and confirms that the same is in line with the registered PDD. AMS-I.D. ver. 17- Grid connected renewable electricity generation which was the applied methodology during the registration of the project is also checked to ensure that monitoring parameter as mentioned in the registered PDD and current MR are in compliance with the methodology.
<b>Findings</b>	No findings were raised regarding this issue
<b>Conclusion</b>	<p>As per the registered monitoring plan and requirement of the registered methodology following parameters needs to be monitored:</p> <p><math>EG_{BL, y}</math>: Quantity of net electricity supplied to the grid by project activity in year y</p> <p>Assessment team confirmed that the net electricity supplied to the grid by the</p>

	<p>project activity is continuously monitored both in individual WTG control panel (in built) and at the energy meter (main and check meter) installed at the sub-station. The project activity WTGs involves two feeders to export electricity to grid. Section C of MR mentioned the meter details for each feeder.</p> <p>The meters remain under the custody of state utility. Since, the energy meter is connected to number of WTGs along with the project WTGs the net electricity exported to grid by the project WTGs are calculated based on the gross electricity exported and imported to/from the grid at substation where all WTGs (WTGs of project activity and WTGs of other than project activity) are connected.</p> $EG_{BL,y} = EG_{EXP,PA,y} - EG_{IMP,PA,y}$ <p>Also, Joint Meter Reading is recorded at the end of every month, by the representative of the state electricity board and representative of O&amp;M Contractor. The Joint Meter Reading taken at the substation is apportioned by O &amp; M provider along with state utility for individual project participants. PP doesn't have any role or control on preparation of Joint meter readings for individuals. PP also receives a copy of export (<math>EG_{EXP,PA,y}</math>) and import (<math>EG_{IMP,PA,y}</math>) data for his WTGs from which the net export of electricity to grid is calculated on monthly basis (<math>EG_{BL,y} = EG_{EXP,PA,y} - EG_{IMP,PA,y}</math>). This value is directly used for emission reduction calculation and on the same monthly net generation data, PP raises the invoice to MSEDCL.</p> <p><b><math>EG_{EXP,PA,y}</math></b>: Quantity of electricity imported from the grid by project activity in year y</p> <p>This parameter is directly measured with energy meters at the substation. The joint meter reading report and the break-up sheet (based on apportioning procedure) is provided by the O&amp;M contractor to state authorities which in turn issues the final JMR including export, import and net electricity supplied to grid to individual WTG owners including PP.</p> <p><b><math>EG_{IMP,PA,y}</math></b>: Quantity of electricity exported from the grid by project activity in year y</p> <p>This parameter is directly measured with energy meters at the substation. The joint meter reading report and the break-up sheet (based on apportioning procedure) is provided by the O&amp;M contractor to state authorities which in turn issues the final JMR including export, import and net electricity supplied to grid to individual WTG owners including PP.</p>
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### E.6.3. Implementation of sampling plan

<b>Means of verification</b>	The verification assessed whether the compliance of the sampling efforts and surveys with the registered sampling plan in accordance with the "Standard for sampling and surveys for CDM project activities and programme of activities" if PP had applied a sampling approach to determine data and parameters monitored.
<b>Findings</b>	There is no CAR/CL raised in this section.
<b>Conclusion</b>	PP did not apply sampling plan to determine data and parameters monitored during this monitoring period. The verification team has checked all the documents such as JMR (Monthly meter) report etc. and hence sampling plan was not required. The verification team hereby confirms that are checked all the documents

### E.7. Compliance with the calibration frequency requirements for measuring instruments

<b>Means of verification</b>	The verification team determined whether the calibration of the measuring equipment that has an impact on the claimed emission reductions is conducted by the PP at a frequency specified in the registered monitoring plan
<b>Findings</b>	CAR 03 was raised during the verification process and closed successfully. Please refer Appendix 4 of this report for the detail closure of the CAR.
<b>Conclusion</b>	The metering arrangement is tri-vector bi-directional (Elster) energy meters (main and check) at the project site. These meters record several parameters including electricity exported & imported. These electricity meters are being used by state utility officials to obtain the value of export and import and hence Net electricity supplied is calculated

based on these values.

The calibration details of meters involved in the project activity is as below:

### Feeder 1

Meter Serial No.	Accuracy Class	Calibration Date	Due Date
13099021(Main meter)	0.2s	28/12/2018	27/12/2019
13132615(Check meter)		20/11/2019	19/11/2020
		18/11/2020	17/11/2021

### Feeder 2

Meter Serial No.	Accuracy Class	Calibration Date	Due Date
13132626 (Main meter)	0.2s	28/12/2018	27/12/2019
13132613(Check meter)		20/11/2019	19/11/2020
		18/11/2020	17/11/2021

Assessment team confirms that all the energy meters (both main and check meter) installed at the substation are of accuracy class of 0.2s and are calibrated as per the national standards followed by the electricity board, but they are calibrated at least once in a year (As per the registered PDD) (footnotes 4 to 7 below have to be taken into account for this monitoring period).

Moreover, Controller meters are software-based meter and does not required calibration. This is as per the manufacturer's requirement and thus acceptable to the assessment team. The calibration of the energy meters installed at HT side of the transformer were carried out by Meter and testing division of the DISCOM i.e. MSEDCL (Maharashtra State electricity Distribution company) which is 3rd party organization and the same is acceptable to the assessment team. The Meter and testing division of the DISCOM is accredited by NABL (National Accreditation Board for Testing and Calibration Laboratories, New Delhi, Govt of India) to carry out the testing of the meters which is as per the national regulation and thus traceability of the Calibration is also confirmed by the assessment team.

## E.8. Assessment of data and calculation of emission reductions or net removals

### E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

<b>Means verification</b>	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.		
<b>Findings</b>	There is no CAR/CL raised in this section.		
<b>Conclusion</b>	<p>Baseline emissions include only CO<sub>2</sub> emissions from electricity generation in grid mix dominated by fossil fuel fired power plants that are displaced due to the project activity. The baseline emissions for the monitoring period are calculated as follows:</p> $ER_y = EG_{BL,y} \times EF_{NEWNE,CM,y}$ <p>Where,</p> <p><math>BE_y</math> = Baseline Emissions in year y (tCO<sub>2</sub>)</p> <p><math>EG_{BL,y}</math> = Quantity of net electricity supplied to the grid by project activity in year y</p> <p><math>EF_{NEWNE,CM,y}</math> = CO<sub>2</sub> Emission Factor in year y (tCO<sub>2</sub>/MWh)</p> <p>Same calculation of Baseline Emissions <math>BE_y</math> (As per Equation (1) of AMS.I.D, Version 17) for the current monitoring period has been depicted below:</p> <table border="1"> <tr> <th>Particulars</th><th>Value</th></tr> </table>	Particulars	Value
Particulars	Value		



	Baseline Emissions Factor ( $EF_{NEWNE}$ , CM, y in tCO <sub>2</sub> /MWh)	0.9528
	Net Electricity Supplied to the Grid by the Project (EGBL, y in MWh)	13713.73
	Baseline Emissions ( $BE_y$ in tCO <sub>2</sub> e)	13,066 (Rounded down)
<p>As per the methodology AMS-I.D. ver. 17- Grid connected renewable electricity generation, there is no project activity emissions associated with the project activity as this is a Wind power project and hence <math>PE_y = 0</math> tCO<sub>2</sub>. Further, as per the registered PDD leakage emissions is also considered zero.</p> <p><b>Emission Reductions:</b></p> <p>The total emission reduction achieved in a year would be  <math>ER_y = BE_y - PE_y - LE_y</math></p> <p>Where,  <math>ER_y</math> is the Emission reductions during the year y  <math>BE_y</math> is the Baseline emissions during the year y  <math>PE_y</math> is the Project emissions during the year y  <math>LE_y</math> is the Leakage emissions during the year y</p> <p>Thus:  <math>ER_y = BE_y - PE_y - LE_y</math>  <math>= 13,066 - 0 - 0</math>  <math>= 13,066</math> tCO<sub>2</sub>e</p> <p>Calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.</p>		

#### E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

<b>Means of verification</b>	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.
<b>Findings</b>	No findings raised
<b>Conclusion</b>	Project emission is zero as per the requirement of the methodology and registered PDD

#### E.8.3. Calculation of leakage GHG emissions

<b>Means of verification</b>	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.
<b>Findings</b>	No findings were raised.
<b>Conclusion</b>	The leakage emissions are regarded as zero according to the applied methodology and registered PDD.

#### E.8.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

<b>Means of verification</b>	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the registered CDM project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring
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	plan.
<b>Findings</b>	There is no CAR/CL raised in this section.
<b>Conclusion</b>	<p>Emission reductions in this monitoring period are:  Total Baseline Emissions: 13,066 tCO<sub>2</sub>e  Total Project Emission: 0  Total Leakage: 0  Total Emission Reduction: Emission reduction calculation is done based on following formula,</p> $\text{Emission reduction (ER}_y\text{)} = \text{Baseline Emission (BE}_y\text{)} - \text{Project Emission (PE}_y\text{)} - \text{Leakage Emission (LE}_y\text{)}$ $= 13,066 \text{ tCO}_2\text{e}$

#### E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

<b>Means of verification</b>	The verification team has determined the CER achieved during this monitoring period with the estimated value and reason for increase if any.
<b>Findings</b>	There is no CAR/CL raised in this section.
<b>Conclusion</b>	<p>As per the CDM registered PDD, the amount of CERs generated annually is 8,513 tCO<sub>2</sub>e. Therefore, the amount of estimated ex ante for this monitoring period is identified as explained below.</p> <p>The total number of days in this monitoring period is 731 days.  Hence, the amount of estimated ex ante for this monitoring period = 8,513* (731/365) = 17,049 tCO<sub>2</sub>e</p> <p>Actual emission reduction as checked and confirmed from the emission reduction sheet is as follows:</p> <p>Total Baseline Emissions= Emission reduction: 13,066 tCO<sub>2</sub>e</p> <p>The actual emission reduction is 23.36% less than the estimated value. The reason for the same is due to lower PLF for the present monitoring period. The same is thus acceptable to the assessment team.</p>

#### E.8.6. Remarks on difference from estimated value in registered PDD

<b>Means of verification</b>	The verification team has determined the CER achieved during this monitoring period with the estimated value and reason for increase if any.
<b>Findings</b>	There is no CAR/CL raised in this section.
<b>Conclusion</b>	<p>As per the CDM registered PDD, the amount of CERs generated annually is 8,513 tCO<sub>2</sub>e. Therefore, the amount of estimated ex ante for this monitoring period is identified as explained below.</p> <p>The total number of days in this monitoring period is 713 days.  Hence, the amount of estimated ex ante for this monitoring period = 8,513* (731/365) = 17,049 tCO<sub>2</sub>e</p> <p>Actual emission reduction as checked and confirmed from the emission reduction sheet is as follows:</p> <p>Total Baseline Emissions= Emission reduction: 13,066 tCO<sub>2</sub>e</p> <p>The actual emission reduction is 23.36% less than the estimated value. The reason for the same is due to lower PLF for the present monitoring period. The same is thus acceptable to the assessment team.</p>

#### E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

<b>Means of verification</b>	The verification team has determined the GHG emission reductions achieved during first commitment period and second commitment period
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<b>Findings</b>	There is no CAR/CL raised in this section.
<b>Conclusion</b>	<ol style="list-style-type: none"> <li>1. GHG emission reductions or net GHG removals by sinks reported up to 31 December 2012: 0 tCO<sub>2e</sub></li> <li>2. GHG emission reductions or net GHG removals by sinks reported from 1 January 2013 onwards: 13,066 tCO<sub>2e</sub></li> </ol>

### E.9. Assessment of reported sustainable development co-benefits

<b>Means of verification</b>	Not applicable for the present monitoring period
<b>Findings</b>	Not applicable for the present monitoring period
<b>Conclusion</b>	Not applicable for the present monitoring period

### E.10. Global stakeholder consultation

<b>Means of verification</b>	Not applicable for the present monitoring period
<b>Findings</b>	Not applicable for the present monitoring period
<b>Conclusion</b>	Not applicable for the present monitoring period

## SECTION F. Internal quality control

As a final step for Verification assessment, the final documentation, including the Verification Report, has to undergo an internal quality control by the Technical Reviewer(s) to be approved.

Details of the Technical Reviewer(s) are provided within the Verification Report in Section B.2. and Appendix 2 for further references of knowledge and capability to conduct the quality checking.

After the Technical Review process, the final documentation may undergo a final quality checking process called Administrative Review, done by the Applus+ Certification's Project Manager and/or Technical Support. For final approval, the final set of documents are prepared by the DOE's Technical Manager or its deputy and signed by the authorized signatory of the DOE.

In case any of the persons performing this final internal quality control approval process has acted as a part of the Assessment Team or Technical Review team, the approval can only be given by DOE's authorized personnel who are not part of those teams.

If the final set of documents has been satisfactorily approved, a Request for Issuance is submitted to the UNFCCC CDM EB along with the relevant documents.

## SECTION G. Verification opinion

Applus+ Certification has been engaged by M/s Shyam Metalics & Energy Limited to perform the 3<sup>rd</sup> periodical verification of the project entitled 5.10 MW Wind Power Project by Shyam Metalics & Energy Limited in Maharashtra, India (UNFCCC Ref. No. 9697<sup>6</sup>).

The management of M/s Shyam Metalics & Energy Limited is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's Monitoring Plan in the registered PDD version 04 dated 06/06/2013 and the applied methodology AMS I.D ver. 17 - Grid connected renewable electricity generation.

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification can confirm that:

- the project is operated as planned and described in the project design document approved by the EB;
- the monitoring plan is as per the applied methodology;
- the monitoring in Monitoring Report is as per the PDD and the monitoring plan approved by the EB;
- the development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

<sup>6</sup> <https://cdm.unfccc.int/Projects/DB/RINA1374589833.08/view>

In our opinion, the GHG emission reductions for 5.10 MW Wind Power Project by Shyam Metals & Energy Limited in Maharashtra, India for the monitoring period 01/01/2019 to 31/12/2020 as reported in Monitoring Report, prepared on the basis of the project's Monitoring Plan are fairly stated.

Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period: From 01/01/2019 to 31/12/2020

Verified emissions in the above reporting period:

Leakage emissions	0 tCO <sub>2</sub> equivalents
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Project emissions	0 tCO <sub>2</sub> equivalents
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Baseline emissions	13,066 tCO <sub>2</sub> equivalents
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Emission reductions	13,066 tCO <sub>2</sub> equivalents
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## **SECTION H. Certification statement**

Same as above

## Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CER	Certified Emission Reduction(s)
CEA	Central Electricity Authority
CL	Clarification request
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EF	Emission Factor
ER	Emission Reductions sheet
FAR	Forward Action Request
JMR	Joint Meter reading
KPTCL	Karnataka Power Transmission Corporation Limited
GHG	Greenhouse gas(es)
MSEDCL	Maharashtra State electricity distribution company limited.
PP	Project Participant

## Appendix 2. Competence of team members and technical reviewers

1. **Mr. Pankaj Kumar** worked as team leader – Bihar for South Asia Climate Proofing and Growth Development(CPGD) – Climate Change Innovation Programme (CCIP) supported by DFID that seeks to mainstream climate change resilience into planning and budgeting at the national and sub-national level in India, Pakistan, Nepal, and Afghanistan. Pankaj Kumar has worked previously with IL&FS Infrastructure Development Corporation and BUIDCO(Bihar Urban Infrastructure Development Corporation), Govt. Of Bihar as Environmental Specialist for WB & ADB funded projects. Prior to this, he worked with Carbon Check (UNFCCC accredited DoE), Johannesburg, RSA as Team Leader for validation, verification of around 100 GHG projects in Asia, Africa, USA, Asia Pacific & Americas. Pankaj is accredited Lead Auditor, Validator, Verifier and Technical Expert for Sectoral Scope/Technical Area – 1.1, 1.2, 3.1 & 13.1 by UNFCCC DoE (Designated Operational Entity), APPLUS, Spain. He is also member of task force on climate change & human health, Health Department, GoB and on roster of UNICEF's WASH experts. He is an experienced, qualified and result oriented Environment Professional having more than 14 yrs. Of relevant experience in Climate Change (Mitigation & Adaptation), Environmental Due Diligence, Disaster Risk Reduction, Validation and Verification of GHG project under CDM, Verified Carbon Standard, Gold Standard & Social Carbon Standard, Brazil. He provides technical support for environmental investigative, consultative and remedial projects involving air, water and soil, Waste management, EIA, Environmental Compliance, ISO 14001, OHSAS 18001, GHG accounting (ISO 14064) and Carbon foot printing. Pankaj Kumar is Masters in Environment Management from Forest Research Institute (University), I.C.F.R.E, Dehradun, which is Centre of Excellence in South East Asia for Forestry education & research and PGDEL from National Law School of India University, Bangalore (India).
2. **Meng (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+ LGAI, he had been worked for TÜV SÜD as a GHG Validator/Assessment team and ISO 9001/14001 Lead Auditor for 3.5 years

### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	NA	Commissioning certificates	Commissioning Certificates of the Wind power plant	Project participant
2.	NA	Contract of the project participant with the DOE	Contract document signed between PP and DOE	Project participant
3.	NA	CDM PS- version 03  CDM VVS – version 03	CDM project standard version 03  CDM validation and verification standard for project activities, Version 03	UNFCCC
4.	NA	Joint Meter Reading (JMR)/ Invoices	Joint Meter Reading (JMR)/Statement for the complete monitoring period issued by State Utility. Invoices for the complete monitoring period.	Project participant
5.	NA	MR version 01  MR version 02	MR version 01 dated 07/06/2021  MR version 02 dated 17/10/2021	Project participant
6.	NA	ER sheet version 01 ER sheet, version 02	ER version 01 dated 09/06/2021  ER version 02 dated 18/09/2021	Project participant
7.	NA	Actual geo-coordinates	Actual coordinates for the project activity via GPS meters	Project participant
8.	NA	Break Down details of plant	Log book records onsite	Project participant
9.	NA	Guidelines for Application of materiality in verifications version 2.0	UNFCCC web site	UNFCCC
10.	NA	Registered documents of the project activity	<a href="https://cdm.unfccc.int/Projects/DB/RINA1374589833.08/view">https://cdm.unfccc.int/Projects/DB/RINA1374589833.08/view</a>	NA
11.	NA	Approved methodology	AMS I.D ver. 17 - Grid connected renewable electricity generation	UNFCCC
12.	NA	Calibration certificates	The calibration reports for the complete monitoring period.	PP
13.	NA	Training record	Training records of the O&M personals.	PP

## Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1 Remaining FAR from validation and/or previous verifications

<b>FAR ID</b>	xx	<b>Section no.</b>	E.2	<b>Date:</b> DD/MM/YYYY
<b>Description of FAR</b>				
<i>No FAR is remaining from validation or previous verifications.</i>				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY

Table 2 CL from this verification

<b>CL ID</b>	xx	<b>Section no.</b>		<b>Date:</b> DD/MM/YYYY
<b>Description of CL</b>				
N/A				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY

Table 3 CAR from this verification

<b>CAR ID</b>	01	<b>Section no.</b>	C	<b>Date :</b> 17/09/2021
<b>Description of CAR</b>				
PP shall provide the JMR/share certificates and copies of invoices pertaining to current monitoring period.				
<b>Project participant response</b>				<b>Date :</b> 18/09/2021
The JMRs and Invoices Copies are now submitted to the assessment team.				
<b>Documentation provided by project participant</b>				
1. JMRs 2. Invoices				
<b>DOE assessment</b>				<b>Date:</b> 20/09/2021
PP has now provided the JMR/share certificates and copies of invoices pertaining to current monitoring period (01/01/2019 to 31/12/2020). Hence, <b>Comment closed</b> .				

<b>CAR ID</b>	02	<b>Section no.</b>	E.1	<b>Date :</b> 17/09/2021
<b>Description of CAR</b>				
PP shall provide ER sheet for cross checking of total electricity exported to grid in the current monitoring period and corresponding emission reduction achieved.				
<b>Project participant response</b>				<b>Date :</b> 18/09/2021
The ER sheet is now submitted to the assessment team .				
<b>Documentation provided by project participant</b>				
1. ER sheet				
<b>DOE assessment</b>				<b>Date:</b> 20/09/2021

PP has now provided ER sheet for the cross check of total electricity exported to the grid in the current monitoring period (01/01/2019 to 31/12/2020) and corresponding emission reduction achieved. Hence, **Comment closed.**

<b>CAR ID</b>	03	<b>Section no.</b>	C	<b>Date :</b> 17/09/2021
<b>Description of CAR</b>				
PP shall include meter calibration details in MR and provide calibration certificates of meter applicable for this monitoring period.				
<b>Project participant response</b>				<b>Date :</b> 18/09/2021
Meter calibration details are now incorporated in appendix 1 of the MR-Version 02 and calibration certificates of meter are now submitted to the assessment team.				
<b>Documentation provided by project participant</b>				
1. MR –Version – 02 2. Calibration Certificates				
<b>DOE assessment</b>				<b>Date:</b> 20/09/2021
PP has now mentioned calibration details in the revised MR ver 02. Dated 18/09/2021, and provided the calibration certificates of the meters applicable for this monitoring period. Hence, <b>Comment closed.</b>				

Table 3 FAR from this verification

<b>FAR ID</b>	xx	<b>Section No.</b>		<b>Date:</b> DD/MM/YYYY
<b>Description of FAR</b>				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY

## Document information

Version	Date	Description
04.0	6 April 2021	Revision to: <ul style="list-style-type: none"> <li>Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).</li> </ul>
03.0	31 May 2019	Revision to: <ul style="list-style-type: none"> <li>Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN);</li> <li>Make structural and editorial improvements.</li> </ul>
02.1	11 January 2018	Editorial revision to correct the numbering of appendices in the instructions.
02.0	31 October 2017	Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Issuance Keywords: project activities, verifying and certifying		