



**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

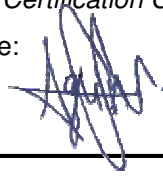
Title and UNFCCC reference number of the project activity	Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd. (UNFCCC Ref. No. 5923)		
Scale of the project activity	<input type="checkbox"/> Large-scale <input checked="" type="checkbox"/> Small-scale		
Version number of the verification and certification report	02		
Completion date of the verification and certification report	19/08/2021		
Monitoring period number and duration of this monitoring period	01 05/12/2013 – 31/12/2020(including first and last dates)		
Version number of the monitoring report to which this report applies	02		
Crediting period of the project activity corresponding to this monitoring period	23/04/2012 -22/04/2022(Fixed)		
Project participants	M/s Devki Builders Pvt. Ltd.		
Host Party	India		
Applied methodologies and standardized baselines	AMS-I.D "Grid connected renewable electricity generation" (Version 17) Standardized Methodology: Not Applicable		
Mandatory sectoral scopes	1: Energy industries (renewable - / non-renewable sources)		
Conditional sectoral scopes, if applicable	NA		
Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD	72,493 tCO _{2e}		
Certified amount of GHG emission reductions or GHG removals for this monitoring period	Amount before 1 January 2013	Amount from 1 January 2013 until 31 December 2020	Amount from 1 January 2021
	0 tCO _{2e}	59,597 tCO _{2e}	0 tCO _{2e}
Name and UNFCCC reference number of the DOE	LGAI Technological Center, S.A. (Applus+ Certification) UNFCCC Ref. No.: E-0032		

**Name, position and signature of the approver
of the verification and certification report**

Mr. Agustín Calle de Miguel

Applus+ Certification CDM Technical Manager

Signature:



SECTION A. Executive summary

M/s Devki Builders Pvt. Ltd. has commissioned LGAI Technological Center, S.A. (Applus+ Certification) to perform 2nd periodic verification of the “Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd.”. The project activity involves operation of 6.0 MW (4 X1.5 MW) wind power project in Rajasthan state of India.

The purpose of the project activity is to generate clean form of electricity through renewable wind energy sources. The electricity generated from the project activity is supplied to Jaipur Vidyut Vitaran Nigam Limited via NEWNE grid (now Indian grid).

During the reported monitoring period 05/12/2013 to 31/12/2020(first and last date included) the project activity has supplied 64,604 MWh of electricity, and thus contributing to the GHG reductions of 59,597 tCO₂e.

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 02.0, 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:

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

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

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; 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 2nd 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 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 Jitendra Mohan Singh	LA/TE	YES	YES	NA
Mr. Denny Xue	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 on-site inspection has been performed by the assessment team.

The objective of the on-site assessment 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:

- 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.

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 of verification, the final documentation including the verification report has to undergo an internal quality control by the Technical Reviewer. Each report has to be finally approved either by the DOE's Technical Manager or the Deputy. In case one of these two persons is part of the assessment team, the approval can only be given by the person who is not a part of the assessment team. If the documents have been satisfactorily approved, the request of issuance is submitted to CDM EB along with the requisite 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	OR	Singh	Jitendra Mohan	True Quality Certifications Private Limited- Outsourced entity	Yes	NA	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	Xue	Denny	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 spreadsheets without adequate data control, changes/updates, version tracking, traceability and security	All the JMRs (Monthly meter reading reports) sheets and the invoices for the complete monitoring period are checked and thus the assessment team confirms that the ER value is conservative and correct.

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 including 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.

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 & submitted by PP. A complete list of all documents and records reviewed is as attached in Appendix 3 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 and state-wise lockdown and quarantine rules.

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 02.0". Also, PP has ERPA commitment for September 2021. As per UNFCCC guideline DOE concluded that the site visit cannot be postponed and therefore the audit was conducted on 13/08/2021 remotely. . 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.

The remote audit was conducted through Skypes and audit was attended by Site In-charge of both sites as well as consultants. Details of attendees is given below in section D.3.

The topics discussed during the remote audit is given in below table and explained in detailed latter part.

Duration of remote audit: 13/08/2021				
No.	Activity performed on-site	Site location	Date	Team member
1.	<p>The verification team conducted virtual audit of the project 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>	Remote Audit (through zoho) call	13/08/2021	Jitendra Mohan Singh

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 WTGs, 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 each WTG is 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 and video (via Zoho) 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.	Jain	R.K.	PP representative	13/08/2021	As mentioned above in section D.2 of this report	Jitendra Mohan Singh
2.	Nagarkar	Sachin	Consultant, EKI Energy Service Ltd.	13/08/2021	As mentioned above in section D.2 of this report	
2.	Patil	Shital	Consultant, EKI Energy Service Ltd.	13/08/2021	As mentioned above in section D.2 of this report	

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 (monthly reports) sheets, invoices 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	01	00
Compliance of the project implementation and operation with the registered PDD	00	01	00
Post-registration changes	00	00	00
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines	00	00	00
Compliance of monitoring activities with the registered monitoring plan	00	01	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	01	00
Assessment of reported sustainable development co-benefits	00	00	00
Global stakeholder consultation	00	00	00
Others (please specify)	00	00	00
Total	00	05	00

SECTION E. Verification findings

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

Means of verification	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
Findings	CAR 01 was raised during the verification process and closed successfully. Please refer Appendix 4 for the complete closure of the CAR.
Conclusion	The MR was web hosted in version 08.0 of the MR form which is currently active version available in the UN platform. 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 05/12/2013 to 31/12/2020;(both the days included) publicly available through its dedicated interface on the UNFCCC CDM website on 14/07/2021 ¹ i.e. before undertaking the remote audit for the verification. 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.
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E.2. Remaining forward action requests from validation and/or previous verifications

This is 2nd periodic verification of the project activity. No FAR was raised during the validation and previous verification of the project activity.

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

Means of verification	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 interview, 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.																																									
Findings	CAR 02 was raised during the verification process and closed successfully. Please refer Appendix 4 for the complete closure of the CAR.																																									
Conclusion	<p>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 remote audit. All the wind turbines installed are in continuous operation. The situation of continuous operation is confirmed by the PP representation during remote audit and evident from Breakdown log sheets. No major breakdown was found. Scheduled & preventive maintenance were carried out as per manufacturer specification for the power plant. No unforeseen activity observed during the present verification that 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. Assessment team also checked the implementation status of the project activity and confirm that detail as presented in the MR is correct. The project commissioning date and location is described below along with the latitude and longitude.</p> <p>Assessment team checked the latitude and longitude of the project activity with the help of Google earth software and found that the detail of latitude and longitude as mentioned in the registered PDD is correct. The details are given below;</p> <table><tr><th>Capacity (MW)</th><th>Unique Identification No.</th><th>Location-Village</th><th>Latitude</th><th>Longitude</th></tr><tr><td rowspan="4">1.5</td><td>RKBNL6</td><td>Kui Inda</td><td>N 26°27'38.5"</td><td>E 72° 29' 21.4"</td></tr><tr><td>RKB083</td><td>Bastwa Mataji</td><td>N 26° 30' 18.0"</td><td>E 72° 33' 53.2"</td></tr><tr><td>RKB088</td><td>Bastwa Mataji</td><td>N 26° 31' 23.7"</td><td>E 72° 34' 11.8"</td></tr><tr><td>RKB089</td><td>Bastwa Mataji</td><td>N 26° 31' 35.0"</td><td>E 72° 34' 05.4"</td></tr></table> <p>Commissioning dates of WTGs is verified with the commissioning certificate and found correct. The same is given below:</p> <table><tr><th>Capacity (MW)</th><th>Unique Identification No.</th><th>Model of WTG</th><th>Location-Village</th><th>Commissioning date</th></tr><tr><td rowspan="4">1.5</td><td>RKBNL6</td><td rowspan="4">S-82</td><td>Kui Inda</td><td>30/09/2009</td></tr><tr><td>RKB083</td><td>Bastwa Mataji</td><td>30/09/2009</td></tr><tr><td>RKB088</td><td>Bastwa Mataji</td><td>30/09/2009</td></tr><tr><td>RKB089</td><td>Bastwa Mataji</td><td>30/09/2009</td></tr></table>	Capacity (MW)	Unique Identification No.	Location-Village	Latitude	Longitude	1.5	RKBNL6	Kui Inda	N 26°27'38.5"	E 72° 29' 21.4"	RKB083	Bastwa Mataji	N 26° 30' 18.0"	E 72° 33' 53.2"	RKB088	Bastwa Mataji	N 26° 31' 23.7"	E 72° 34' 11.8"	RKB089	Bastwa Mataji	N 26° 31' 35.0"	E 72° 34' 05.4"	Capacity (MW)	Unique Identification No.	Model of WTG	Location-Village	Commissioning date	1.5	RKBNL6	S-82	Kui Inda	30/09/2009	RKB083	Bastwa Mataji	30/09/2009	RKB088	Bastwa Mataji	30/09/2009	RKB089	Bastwa Mataji	30/09/2009
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¹ https://cdm.unfccc.int/Issuance/MonitoringReports/mr_for_date.html?date=2021/07/14

The assessment team checked the above details PP representative during the remote audit & review of commissioning certificates and found correct.

The total installed capacity of the bundled project activity is 6.0 MW. Assessment team checked the technical specification and details of the power plant during interview with PP representative during remote audit. The details are checked from the manufacturer technical specification as well from the physical visit. The detail as mentioned in the registered PDD is correct and the same is mentioned in the MR. The detail is as follow:

Technical specification of installed WTGs (S -82) of 1.5 MW is as follows::

Sr. No.	Particulars	Specifications
1.	Rotor diameter	82 m
2.	Hub height	78 m
3.	Installed electrical output	1500 kW
4.	Cut-in wind speed	4.0 m/s
5.	Rated wind speed	12.0 m/s
6.	Cut-out wind speed	20 m/s
7.	Rotor swept area	5281 m ²
8.	Rotational speed	16.3 rpm
9.	Rotor material	GRP
10.	Power regulation	Independent electrochemical pitch
11.	Generator	Asynchronous Generator, 4 pole with slip ring
14.	Operating voltage	690 V
15.	Frequency	50 Hz
16.	Enclosure class	IP 54
17.	Insulation class	H
18.	Slip control	Unique Macro slip providing slip up to 16.7 %
19.	Gear box	3-stage gearbox, 1 planetary & 2 helical
20.	Gear ratio	1:95.09
21.	Nominal load	1650 kW
22.	Type of cooling	Oil cooling system, Forced lubrication
23.	Yaw drive system	Active electrical yaw motors
24.	Yaw bearing	Polyamide slide bearing
25.	Aerodynamic brake	3 independent system with blade pitching
26.	Mechanical brake	Hydraulic disc brake
27.	Design standards	GL special class

The WTGs undergone scheduled maintenance as per the manufacturer's specifications and no unforeseen incident observed by the assessment team during the monitoring period. The details are checked by the assessment team from the plant log records and found correct.

Based on the documentary evidence of commissioning certificates and virtual verification DOE concludes that the project was implemented as per the registered PDD.

E.4. Post-registration changes**E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents²**

Not applicable for present Monitoring period.

E.4.2. Corrections

The PDD was gone through correction (PRC) and the same was approved on 27/02/2015³. The following corrections have been made during previous verification:

- Taluka Dharampur changed to taluka Shergarh in Section A.2.3 of PDD (PDD, Version 9).
- Name of EB GSS Tiwari changed to Tinwari in Section B.7.3 (PDD, Version 9)
- Annex changed to Appendix (PDD, Version 9)
- In section B.6.2- The purpose of data is mentioned as per PDD template requirement and no any material change from registered PDD

In section B.7.1 - The monitoring frequency and purpose of data is mentioned as per PDD template requirement. The reference of section B.7.2 is corrected to B.7.3. These changes are due to latest PDD template requirement and due to shifting of change in section numbers in latest PDD template and no any material change from registered PDD

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

There is no change in crediting period, this this section is not applicable.

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 project activity.

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

Means of verification	The verification team determined whether the registered monitoring plan is in accordance with the applied methodology AMS-I.D "Grid connected renewable electricity generation", Version 17 including applicable tools.
Findings	There is no CAR/CL raised in this section.
Conclusion	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 "Grid connected renewable electricity generation", Version 17 and its applicable tools. The same is followed onsite 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**

Means of verification	The assessment team checked the registered PDD to confirm the ex-ante fixed parameter mentioned in the current monitoring report. Assessment team also
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² 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).

³ <https://cdm.unfccc.int/PRCContainer/DB/prcp595668192/view>

	interviewed personal onsite whether monitoring has been to check further regarding the ex-ante values used for emission reduction calculation.
Findings	There is no CAR/CL raised in this section.
Conclusion	<p>EF_{grid,OM,y} EF_{grid,BM,y} EF_{grid,CM,y}, 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 values of EF_{grid,OM,y} and EF_{grid,BM,y} were considered from the CEA CO₂ baseline database (Version 05) 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 EF_{grid,CM,y} is calculated using the "Tool to calculate the emission factor for an electricity system – Version 04" as follows:</p> $EF_{Grid,CM,y} = 0.75 \times EF_{Grid,OM} + 0.25 \times EF_{Grid,BM}$ <p>Where:</p> <p>EF_{grid,OM}= Operating margin emission factor in year y (tCO₂/MWh)</p> <p>EF_{grid,BM}= Build margin emission factor in year y (tCO₂/MWh)</p> <p>w_{OM} = Weighting of operating margin emission factor (0.75)</p> <p>w_{BM} = Weighting of build margin emission factor (0.25)</p> <p>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>EF_{grid,OM,y} = 1.005 tCO₂/MWh (NEWNE Grid) (Confirmed and checked as per the registered CDM PDD)</p> <p>EF_{grid,BM,y} = 0.675 tCO₂/MWh (NEWNE Grid) and checked as per the registered CDM PDD)</p> <p>EF_{grid,CM,y}= 0.9225 tCO₂/ MWh (NEWNE Grid) (Confirmed and checked as per the registered CDM PDD).</p>

E.6.2. Data and parameters monitored

Means of verification	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 "Grid connected renewable electricity generation", Version 17 which was the applied methodology during the registration of the project is also checked to ensure that monitoring parameters as mentioned in the registered PDD and current MR are in compliance with the methodology.
Findings	CAR 03 was raised during the verification process and closed successfully. Please refer Appendix 4 for the complete closure of the CAR.
Conclusion	<p>As per the registered monitoring plan and requirement of the registered methodology following parameters needs to be monitored:</p> <p>EG_{BL,y} : Net Electricity supplied by project activity to the grid</p> <p>EG_{BL,y} is calculated value based on the monitored parameter of electricity export and Import. The electricity export and import are measured by main and backup meter/ check meter of accuracy class 0.2s at substation (132 kV Jaisalmer GSS). The Joint Meter Reading taken by representatives of State Utility official and O&M provider (Suzlon) at the substation is apportioned on monthly basis by the State Utility at the 132 kV Jaisalmer GSS to get export kWh & import kWh values for the project activity WTG. The value of net electricity supplied by the project activity to the grid calculated as follows:</p> <p>Net export = Export kWh – Import kWh</p> <p>PP has sourced the quantity of net electricity supplied to the grid by the project activity directly from the monthly JMRs prepared by state electricity board.</p> <p>Assessment team verified the same with the JMRs and interview with O & M personals during the remote audit and thus confirm that the value of 6,46,93,263 kWh (64,604 MWh) as mentioned in the revised monitoring report and emission</p>

sheet is correct and the same is in compliance with the requirement of Para 364 and 395 (e)

$$\sum_{0}^n EG_{m,y}$$

The summation of total Electricity Generated (kWh) at the controller from the project activity connected to single common feeder at a substation on a particular site.

This parameter is sum of electricity generated by the project activity continuous measured by controller meter connected to central monitoring system (CMS) through SCADA. PP sourced monitored value directly from the Log sheet records in Suzlon database at CMS which is used to calculate net electricity generation by the project activity. PP doesn't have any role or control on preparation of electricity break up sheets.

Assessment team verified the same with the Log sheet and interview with O & M personals during the remote audit and thus confirm that the value of 65,069,013.78 kWh in the monitoring report and emission sheet is correct and the same is in compliance with the requirement of Para 364 and 395 (e).

$$\sum_{0}^n EG_{m,y}$$

The summation of total Electricity Generated (kWh) at the controller from the project activity connected to single feeder of a particular site.

EG_{m,y} is sum of electricity generated by the project activity continuous measured by controller meter connected to central monitoring system (CMS) through SCADA. PP sourced monitored value directly from the Log sheet records in Suzlon database at CMS which is used to calculate net electricity generation by the project activity. PP doesn't have any role or control on preparation of electricity break up sheets.

Assessment team verified the same with the Log sheet and interview with O & M personals during the remote audit and thus confirm that the value of 1,76,24,95,571.20 kWh in the monitoring report and emission sheet is correct and the same is in compliance with the requirement of Para 364 and 395 (e).

EG_{JMR,export} : Total electricity export by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.

The electricity export and Import is measured by tri-vector main and check meter of accuracy class 0.2s at substation (220 kV Tinwari GSS) and 33 kV Suzlon GSS (57 & 58). The Joint Meter Reading taken by representatives of State Utility official and O&M provider (Suzlon) at the substation is apportioned on monthly basis by the State Utility to get export kWh values for the project activity WTG. The same is used for the billing and emission reductions calculations.

PP has sourced the quantity of net electricity supplied to the grid by the project activity directly from the monthly Joint Meter Reading (JMR). PP doesn't have any role or control on preparation of electricity break up sheets.

The details of meters used during this monitoring period are provided below:

Substation meter:

Meters	Make	Accuracy Class
RJB 00320(Main Meter) ⁴	Secure	0.2s
RJB 00319 (Backup /Check Meter) ⁵	Secure	0.2s
RJB 90216 (main Meter)	Secure	0.2s
RJB 90217 (Backup/check meter)	Secure	0.2s

⁴ Meter replaced with new calibrated meter Sr.No. RJB 90216

⁵ Meter replaced with new calibrated meter Sr.No. RJB 90217

Meter installed at 33 kV Suzlon GSS (57)

Meters	Make	Accuracy Class
RJB 00323 (Main Meter)	Secure	0.2s
RJB 00322 (Backup /Check Meter)	Secure	0.2s

Meter installed at 33 kV Suzlon GSS (58)

Meters	Make	Accuracy Class
RJB 00315 (Main Meter)	Secure	0.2s
RJB 00324 (Backup /Check Meter)	Secure	0.2s

Delay in calibration of meters were identified (Please refer Appendix 1 of MR). The result of delayed calibration is within permissible limit of accuracy class, thus PP applied maximum permissible error factor of 0.2% for complete month of delayed period in export and import value in line with the requirement of paragraph 366 (a). Thus, acceptable to DOE. The details of meters connected to feeders at site are provided in Appendix 1 of revised monitoring report.

Assessment team verified the same with the JMRs and interview with O & M personals during the remote audit and thus confirm that the value of 65,069,013.78 kWh as mentioned in the revised monitoring report and emission sheet is correct and the same is in compliance with the requirement of Para 364 and 395 (e)

EG_{JMR,import} : Total electricity export by all WTGs (including project activity) connected to single common feeder measured at the respective substation feeder meter.

The electricity export and Import is measured by tri-vector main and check meter of accuracy class 0.2s at substation (220 kV Tinwari GSS) and 33 kV Suzlon GSS (57 & 58). The Joint Meter Reading taken by representatives of State Utility official and O&M provider (Suzlon) at the substation is apportioned on monthly basis by the State Utility to get export kWh values for the project activity WTG. The same is used for the billing and emission reductions calculations.

PP has sourced the quantity of net electricity supplied to the grid by the project activity directly from the monthly Joint Meter Reading (JMR). PP doesn't have any role or control on preparation of electricity break up sheets.

The details of meters used during this monitoring period are provided below:

Substation meter:

Meters	Make	Accuracy Class
RJB 00320(Main Meter) ⁶	Secure	0.2s
RJB 00319 (Backup /Check Meter) ⁷	Secure	0.2s
RJB 90216 (main Meter)	Secure	0.2s
RJB 90217 (Backup/check meter)	Secure	0.2s

Meter installed at 33 kV Suzlon GSS (57)

Meters	Make	Accuracy Class
RJB 00323 (Main Meter)	Secure	0.2s
RJB 00322 (Backup /Check Meter)	Secure	0.2s

Meter installed at 33 kV Suzlon GSS (58)

Meters	Make	Accuracy Class
RJB 00315 (Main Meter)	Secure	0.2s
RJB 00324 (Backup /Check Meter)	Secure	0.2s

⁶ Meter replaced with new calibrated meter Sr.No. RJB 90216

⁷ Meter replaced with new calibrated meter Sr.No. RJB 90217

	<p>Delay in calibration of meters were identified (Please refer Appendix 1 of MR). The result of delayed calibration is within permissible limit of accuracy class, thus PP applied maximum permissible error factor of 0.2% for complete month of delayed period in export and import value in line with the requirement of paragraph 366 (a). Thus, acceptable to DOE. The details of meters connected to feeders at site are provided in Appendix 1 of revised monitoring report.</p> <p>Assessment team verified the same with the JMRs and interview with O & M personals during the remote audit and thus confirm that the value of 437,542.00 kWh as mentioned in the revised monitoring report and emission sheet is correct and the same is in compliance with the requirement of Para 364 and 395 (e)</p> <p>Assessment team verified the same with the JMRs and interview with O & M personals during the remote audit and thus confirm that the value of 19,060 MWh as mentioned in the revised monitoring report and emission sheet is correct and the same is in compliance with the requirement of Para 364 and 395 (e) to the grid and the electricity imported from the grid) has been monitored.</p> <p>The Assessment team checked the monthly JMRs issued by the state electricity board. Assessment team also cross-verified the net electricity exported to grid values with invoices raised by PP and found correct. Calibration of the meter is as per registered monitoring plan is annually</p> <p>During the verification all relevant monitoring parameters (as listed in section B.7.1 of PDD) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The Verification team identified that the correct emission factor is reported under the section D.1 of the monitoring report to apply the appropriately report the emission factor. Based on above assessment the verification team confirms that requisite parameters are monitored in line with registered monitoring plan.</p>
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E.6.3. Implementation of sampling plan

Means of verification	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.
Findings	There is no CAR/CL raised in this section.
Conclusion	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 Readings) report, invoice etc. and hence sampling plan was not required. The verification team hereby confirms that all the documents have been checked and thus DOE has not applied any sampling to the project activity for verification purposes.

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

Means of verification	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.					
Findings	CAR 04 was raised during the verification process and closed successfully. Please refer Appendix 4 of this report for the detail closure of the CAR.					
Conclusion	Metering arrangement is bi-directional tri-vector main meter and backup/meter. All the meters used to measure the monitoring parameter of accuracy class 0.2s as verified through calibration certificates. This energy meter is capable of recording both, export as well as import of electricity. Calibration frequency of meters are annually. The meter details and their calibration are as below:					
	Parameter	Meter (Sr. No.)	Location	Calibration Date	Due Date of Calibration	Calibration compliance
	EG _{JMR}	RJB 00320	220 kV	20/12/2012	19/12/2012	Yes

CDM-VCR-FORM

	Export EG_{JMR} , Import	(Main Meter) ⁸ RJB 00319 (Backup meter)	SEB GSS	15/01/2014	14/01/2015	Yes
				25/02/2015	24/02/2016	Yes
				22/02/2016	21/02/2017	Yes
				24/01/2017	23/01/2018	Delay in calibration from Dec 2013 and Jan 2014
		RJB 90216 (main meter)		16/05/2018	15/05/2019	Delay in calibration from Jan 2018 to May 2018
		RJB 00322(Back up meter)		25/04/2019	24/04/2020	Yes
				07/11/2020	06/11/2021	Delay in calibration from Apr 2020 to Nov 2020
	-	RJB 00323 (Main Meter)	33 kV Suzlon GSS (57)	20/12/2012	19/12/2013	yes
				29/01/2014	28/01/2015	Delay in calibration from March 2013 to Jan 2014
		RJB 00322 (Backup meter)		20/02/2015	19/02/2016	Delay in calibration from Jan 2015 to Feb 2015
				21/02/2016	20/02/2017	Delay in calibration in Feb-2016
				23/05/2017	22/05/2018	Delay in calibration from Feb 2017 to May 2017
				15/05/2018	14/05/2019	Yes
				24/04/2019	23/04/2020	Yes
				05/11/2020	04/11/2021	Delay in calibration from April 20 to Nov 20
	-	RJB 00315 (Main meter)	33 kV Suzlon GSS (58)	20/12/2012	19/12/2013	Yes
				29/01/2014	28/01/2015	Delay in calibration from March 2013 to Jan 14
		RJB 00324(Bac kup meter)		20/02/2015	19/02/2016	Delay in from Jan 2015 to Feb 2015
				21/02/2016	20/02/2017	Delay in calibration in Feb-2016
				24/05/2017	22/05/2018	Delay in calibration from Feb 2017 to May 2017
				15/05/2018	14/05/2019	Yes
				24/04/2019	23/04/2020	Yes
				05/11/2020	04/11/2021	Delay in calibration from April 20

⁸ Meter replaced with new calibrated meter Sr. No. RJB 90216.

					to Nov 20
	<p>Delay in calibration of meters were identified for the period mentioned in above table. The result of delayed calibration is within permissible limit of accuracy class, thus PP applied maximum permissible error factor of 0.2% for the delayed period in export and import value in line with the requirement of paragraph 366 (a). Thus, acceptable to DOE.</p> <p>Assessment team checked the calibration details of the installed meters and confirms that calibration dates are correct as verified from the calibration certificates of all meters. All meters are of accuracy class of 0.2s as per registered monitoring plan. Interview with O&M personnel during remote audit, Assessment team checked the calibration details of the installed meters and found also conforms the same.</p>				

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

Means of verification	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 have been carried out in accordance with the formulae and methods described in the registered monitoring plan.
Findings	CAR 05 was raised during the verification process and closed successfully. Please refer Appendix 4 of this report for the detail closure of the CAR.
Conclusion	<p>As per the approved methodology AMS-I.D "Grid connected renewable electricity generation", Version 17 baseline emissions for the project activity are the product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable energy generating unit multiplied by the grid emission factor.</p> $BE_y = EG_{BL,y} \times EF_{grid,CM,y}$ <p>Where; BE_y = Baseline Emissions in tCO₂e $EG_{BL,y}$ = Quantity of net electricity supplied to the grid as a result of the Implementation of the CDM project activity in year y (MWh) $EF_{grid,CM,y}$ = CO₂ emission factor of the grid in year y, tCO₂/MWh Therefore, $BE_y = EG_{BL,y} \times EF_{grid,CM,y}$ $= 64,604 \times 0.9224$ $= 59,597 \text{ tCO}_2\text{e (rundown Value)}$</p>

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

Means of verification	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 project GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan.
Findings	There is no CAR/CL raised in this section.
Conclusion	The project emissions are regarded as zero according to the applied methodology and registered PDD

E.8.3. Calculation of leakage GHG emissions

Means of verification	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.
Findings	There is no CAR/CL raised in this section.
Conclusion	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

Means of verification	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.
Findings	There is no CAR/CL raised in this section.
Conclusion	<p>Emission Reductions: The total emission reduction achieved in a year would be $ER_y = BE_y - PE_y - L_y$</p> <p>Where, ER_y is the Emission reductions during the year y BE_y is the Baseline emissions during the year y PE_y is the Project emissions during the year y L_y is the Leakage emissions during the year y</p> <p>Thus: $ER_y = BE_y - PE_y - L_y$ $= 59,597 \text{ tCO}_2 - 0 - 0$ $= 59,597 \text{ tCO}_2$</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.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	The verification team has determined the emission reductions achieved during this monitoring period with the estimated value and reason for increase if any.
Findings	CAR 05 was raised during the verification process and closed successfully. Please refer Appendix 4 of this report for the detail closure of the CAR.
Conclusion	The total actual emission reduction achieved by the activity in this monitoring period is 59,597 tCO _{2e} . The estimated emission reductions in the in the registered PDD for 365 days is 10,240 tCO _{2e} . The current monitoring period contains 2584 days. This, the value is calculated based on pro-rata basis from the estimated value in the registered PDD. The estimated value for the present monitoring period is 72,493 tCO _{2e} . The emission reduction value in the monitoring period is 17.79% lower as compared to the estimated values for the monitoring period. The calculation is checked by the assessment team in the actual emission reduction sheet and found correct.

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

Means of verification	The verification team has determined the emission reductions achieved during this monitoring period with the estimated value and reason for increase if any.
Findings	CAR 05 was raised during the verification process and closed successfully. Please refer Appendix 4 of this report for the detail closure of the CAR.
Conclusion	The actual Emission Reduction (ER) value achieved in the monitoring period is 17.79% lower than the estimated emission reductions during the current monitoring period. Such variation has been due to lower electricity generation based on low wind availability. Hence accepted by verification team.

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

Means of verification	The verification team has determined the CER achieved during first commitment period and second commitment period
Findings	CAR 05 was raised during the verification process and closed successfully. Please refer Appendix 4 of this report for the detail closure of the CAR.
Conclusion	1.GHG emission reductions or net GHG removals by sinks reported up to 31

	December 2012: 0 tCO ₂ e 2.GHG emission reductions or net GHG removals by sinks reported from 1 January 2013 onwards: 59,597 tCO ₂ e 3.GHG emission reductions or net GHG removals by sinks reported 1 January 2021: 0 tCO ₂ e
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E.9. Assessment of reported sustainable development co-benefits

Means of verification	Not applicable for the present monitoring period
Findings	Not applicable for the present monitoring period
Conclusion	Not applicable for the present monitoring period

E.10. Global stakeholder consultation

Means of verification	Not applicable for the present monitoring period
Findings	Not applicable for the present monitoring period
Conclusion	Not applicable for the present monitoring period

SECTION F. Internal quality control

As a final step for Verification, 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 Activity 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 personnel who are not part of those teams.

If the final set of documents has been satisfactorily approved, the 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 Devki Builders Pvt. Ltd. to perform the 2nd periodical verification of the "Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd." (UNFCCC Ref. No. 5923).

The management of "M/s Devki Builders Pvt. Ltd." 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 PDD version 9 dated:05/12/2014 and the applied methodology AMS-I.D "Grid connected renewable electricity generation" (Version 17).

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, however, delay in calibration observed which is addressed in line with para 366 (a) of CDM validation and verification standard for project activities, version 02.0;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

In our opinion, the GHG emission reductions for "Wind Power Project in Rajasthan, India by M/s Devki Builders Pvt. Ltd." for the monitoring period 05/12/2013 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 05/12/2013 to 31/12/2020;

Verified emissions in the above reporting period:

Leakage emissions

0 tCO₂ equivalents

Project emissions

0 tCO₂ equivalents

Baseline emissions

59,597 tCO₂ equivalents

Emission reductions

59,597 tCO₂ equivalents

SECTION H. Certification statement

Same as above

Appendix 1. Abbreviations

Abbreviations	Full texts
BM	Build Margin
CAR	Corrective Action Request
CER	Certified Emission Reduction(s)
CEA	Central Electricity Authority
CL	Clarification request
CM	Combined Margin
CO ₂	Carbon dioxide
CO ₂ 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
GHG	Greenhouse gas(es)
GWP	Global Warming potential
PP	Project Participant
PPA	Power purchase agreement

Appendix 2. Competence of team members and technical reviewers

1. **Jitendra Mohan Singh**, has done Advanced MSc in Sustainable Energy Systems and Management from International Institute of Management, University of Flensburg, Germany and B.Tech. in Agricultural Engineering from Allahabad University, India. He has more than (18) years of working experience in different organizations like IARI, IIT Delhi, ICAR, IRADe, CAPART, SMEC and Perenia Carbon and M B Power (Madhya Pradesh) Ltd. in the area of Agriculture, Energy & Environment and Climate Change. He also worked on contract basis (adhoc) as a RIT expert in UNFCCC from 2010 to 2013. Currently, he is associated with True Quality Certifications Private Limited and is Applus+ Certification to carry out validation and verification related to GHG reductions projects.
2. **Denny Xue** has a Bachelor's Degree on Thermal Energy Engineering and Master's Degree on Environmental Engineering. He has more than 10 years of experience on CDM project development. Before he joined Applus+ LGAI, he has been worked for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development. He is working with Applus+ since 2011 carrying out Validation and verification for CDM/GS/VCS project under scope 1 and 13 as auditor, lead auditor, technical expert and technical reviewer.

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 and VVS-version 02.0	CDM validation and verification standard for project activities, Version 02.0 CDM project standard for project activities, Version 02.0	UNFCCC
4.	NA	JMRs	Joint Meter Reading (JMR) for the complete monitoring period issued by State Utility	Project participant
5.	NA	Invoices	Invoices for the complete monitoring period raised by PP towards State Utility	Project participant
6.	NA	MR version 01 MR version 02	MR version 01 dated 13/07/2021(Initial) MR version 02 dated 16/08/2021(Final)	Project participant
7.	NA	ER sheet	ER Sheet Version 01 dated 13/07/2021(Initial) ER Sheet Version 02 dated 16/08/2021	Project participant
8.	NA	Actual geo-coordinates	Actual coordinates for the project activity via GPS meters	Project participant
9.	NA	Break Down details of plant	Log book records onsite	Project participant
10.	NA	Application of materiality	Guidelines for Application of materiality in verifications version 2.0	UNFCCC
11.	NA	Registered documents of the project activity	Registered CDM PDD version 9 dated 05/12/2021	UNFCCC website
12.	NA	Approved methodology	AMS-I.D. ver. 17 - Grid connected renewable electricity generation	UNFCCC
13.	NA	Calibration certificates	Calibration certificates of all meter associated with current monitoring period	PP
14.	NA	Meter Changed Report	Meter changes report	PP

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

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

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

Table 2. CL from this verification

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

Table 3. CAR from this verification

CAR ID	01	Section no.	E.1	Date: 14/08/2021
Description of CAR				
Format of the dates in Appendix 1 is not line with the guidelines to complete monitoring report. Corrective action is sought				
Project participant response				Date: 16/08/2021
The dates in Appendix 1 is corrected as per guidelines to complete monitoring report.				
Documentation provided by project participant				
MR V02				
DOE assessment				Date: 17/08/2021
PP has corrected the format of date in Appendix 1 and thus CAR is closed.				

CAR ID	02	Section no.	E.3	Date: 14/08/2021
Description of CAR				
There is break down reported in Daily generation Report data sheet (ER calculation sheet), However, the same is not reported in monitoring report by PP. Corrective action is sought.				
Project participant response				Date: 16/08/2021
Breakdown details are mentioned in Appendix 2 of monitoring report.				
Documentation provided by project participant				
MR V02				
DOE assessment				Date: 19/08/2021
PP has now included the breakdown details in Appendix 2 of monitoring report. Verification team confirms that no major breakdown was found. Scheduled & preventive maintenance were carried out as per manufacturer specification for the power plant. No unforeseen activity observed during the present verification that can alter the applicability or additionality of the applied methodology. CAR is thus closed.				

CAR ID	03	Section no.	E.6.2	Date: 14/08/2021
Description of CAR				

As per requirement of MR filling guidance, the Information of "monitoring equipment" PP is requested to mention validity of calibration too together with calibration frequency in calibration information section of MR. Corrective action is sought.	
Project participant response	Date: 16/08/2021
Validity of calibration and calibration frequency is being added in Appendix 1 of monitoring report.	
Documentation provided by project participant	
Revised MR	
DOE assessment	Date: 19/08/2021
PP has now included the calibration validity in Appendix 1 of revised MR and calibration frequency of meter provides in Section C of MR. CAR is closed.	

CAR ID	04	Section no.	E.7	Date: 14/08/2021
Description of CAR				
During desk review, assessment team observed that calibration date of meter Sr. No. RJB 00322 and RJB 0023 for the year 2012 is not consistent with the calibration certificate.				
Further, PP has not submitted the calibration certificate for the year 2014 for the above-mentioned electricity meter. Corrective action is sought.				
Project participant response				Date: 16/08/2021
1. Calibration dates for RJB 00322 and RJB 00323 for the year 2012 changed according to the calibration certificate. 2. Calibration certificate is being provided for the year 2014.				
Documentation provided by project participant				
MR V02 and ER V02				
DOE assessment				Date: 19/08/2021
PP has corrected the calibration dates of meter RJB 00322 and RJB 00323 in accordance with the calibration certificate i.e.20/12/2012. PP has also submitted the missing calibration certificate for the year 2014. Assessment team checked the same and confirms that calibration date is correct. CAR is closed.				

CAR ID	05	Section no.	E.8	Date: 14/08/2021
Description of CAR				
PP shall keep consistency in dates format (DD/MM/YYYY) in MR and ER sheet as requirement of MR form filling guidance. Further, emission reduction is not consistent in monitoring report with calculated value in emission reduction sheet. Corrective action is sought.				
Project participant response				Date: 16/08/2021
1. Date format is being changed as per the requirement of MR form filling guidance. 2. Monitoring report updated as per the emission reduction sheet.				
Documentation provided by project participant				
MR V02 and ER V02				
DOE assessment				Date: 19/08/2021
PP has corrected the date format throughout the MR. PP has also corrected the emission reduction in revised MR and same is found correct and consistent with the emission reduction. CAR is closed.				

Table 4. FAR from this verification

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

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
04.0	6 April 2021	Revision to: <ul style="list-style-type: none"> • Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).
03.0	31 May 2019	Revision to: <ul style="list-style-type: none"> • Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN); • Make structural and editorial improvements.
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		