


Verification report for GS4GG project activities (Gold Standard for the Global Goals)	
BASIC INFORMATION	
Title of the GS4GG Project activity	Wind Power Project in Tinwari, Rajasthan
Reference number of the project activity	GS6004
Version number of the verification and certification report	03
Completion date of the verification and certification report	07/11/2023
Monitoring period number and duration of this monitoring period	Monitoring period number: Third Monitoring period duration: 01/01/2021 – 31/07/2022 (both dates included)
Version number of the monitoring report to which this report applies	1.4
Crediting period of the project activity corresponding to this monitoring period	19/03/2016 – 31/07/2022, fixed, 10 years
Project representative(s)	Wind World (India) Limited ACT Financial Solutions B.V First Climate Markets A.G.
Host Party	India
Applied methodologies and standardized baselines	ACM0002 "Grid-connected electricity generation from renewable sources" (version 17.0). Standardized baseline: N/A
Mandatory sectoral scopes	Sectoral scope: 1, Energy industries (renewable- / non-renewable sources)
Activity requirements applied	<input type="checkbox"/> Community Services Activities <input checked="" type="checkbox"/> Renewable Energy Activities <input type="checkbox"/> Land Use and Forestry Activities/Risks & Capacities <input type="checkbox"/> N/A

Product requirements applied		<input checked="" type="checkbox"/> GHG Emissions Reduction & Sequestration <input type="checkbox"/> Renewable Energy Label <input type="checkbox"/> N/A		
Sustainable Development Goals Targeted	SDG Impact	Estimated amount of annual average certified SDG impact (as per approved PDD)	Total amount of certified SDG impact (as per approved methodology) achieved in this monitoring period	Units/ Products
SDG 3 (Good Health And Well-Being)	No of Beneficiaries	1000	2000	Numbers
SDG 7 (Affordable and Clean Energy)	Percentage of renewable energy as part of total energy (electricity) generated in Aruba	68,420.636	49,748.698	MWh
SDG 8 (Decent Work and Economic Growth)	Number of local employees employed by the project and trainings	10 employees 1 Training	14 employees 2 Training	Numbers
SDG 13 (Climate Action)	Amount of CO2 emission reduced	51,242	47,201	Tons of CO2e
Name of the Gold Standard approved auditor (VVB)		Earthood Services Private Limited		
Name, position and signature of the approver of the verification and certification report		 Mr. Ashok Gautam Director		

SECTION A. Executive summary

The basic details of the GS project activity are mentioned below:

Project title	Wind Power Project in Tinwari, Rajasthan
ESPL ref.No.	GS.VER.22.43
GS ID	GS6004
UNFCCC registration number	6160
Date of GS registration	19/03/2018
Monitoring period	01/01/2021-31/07/2022 (including both days)
GS4GG Version	1.2
GS4GG Activity Requirements	Renewable Energy Activity Requirements GS4GG Code 201 RE
Technical Area (TA)	TA 1.2
Selected Sustainable Development Goals (SDGs)	SDG 3, SDG 7, SDG 8 and SDG 13
Sectoral scope (UNFCCC)	1
GS4GG Sectoral Scope:	2
GS4GG Certified Product	GHG Emissions Reduction & Sequestration
GS4GG SDG Impact Statement	Not applicable

Scope of Verification

This verification is an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the VVB. The verification addresses the implementation and operation of the GS PA and tests the data and assertions set out in the monitoring report based on the following:

- The registered CDM PDD/1.1/, GS PDD/01/ and approved transition annex /1.2/
- The approved methodology mentioned in the PDD/1.1/.
- The registered monitoring plans/01/
- UNFCCC criteria referred to in the Kyoto Protocol criteria and the CDM modalities and procedures as agreed in the Bonn Agreement and the Marrakech Accords
- Latest GS version, GS4GG v 1.2/23/
- CDM Validation and Verification Standard (VVS)/25/
- Principles and Requirements for GS4GG Validation and Verification Body requirements, Product requirements and references relevant to the project activity’s reported emission reductions.

The verification has considered both quantitative and qualitative aspects on stated/reported emission reductions. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC, as appropriate to the PA. The verification is not meant to provide any consulting or recommendations to the CME/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

The verification process involved following;

- Contract with Wind World (India) Limited for the scope of verification;
- Submission of monitoring report and supporting documents
- Desk review
- Physical on-site inspection

- Issuance of verification findings
- Reporting, calculation checks, QA/QC and resolution of findings
- Issuance of draft verification report
- Independent technical review of the project documentation
- Issuance of the final verification report
- Submission of the request for issuance, as appropriate

Based on the outcome of the verification process of the registered PA “Wind Power Project in Tinwari, Rajasthan” for the monitoring period 01/01/2021 to 31/07/2022 (both dates included) we confirm that the implementation of referenced registered PA is complying with applicable GS and regulations as stated in the Monitoring Report (final) Version 1.4 dated 03/11/2023. Earthood Services Private Limited is able to certify that the emission reductions from the registered GS PA (GS 6004) “Wind Power Project in Tinwari, Rajasthan” in India during the period 01/01/2021 to 31/07/2022 (both dates included) amount to 47,201 tCO₂e. Therefore, this is being submitted for request for issuance, as per GS and UNFCCC procedures as applicable.

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 VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader	EI	Soni	Ravi Kant	Central Office	Y	Y	Y	Y
2.	Technical Expert	EI	Soni	Ravi Kant	Central Office	Y	Y	Y	Y
3.	Methodology Local Expert	EI	Soni	Ravi Kant	Central Office	Y	Y	Y	Y
4.	Verifier	IR	Guleria	Shifali	Central Office	Y	N	N	Y

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 VVB or outsourced entity)
1.	Technical reviewer	IR	Garg	Shreya	Central Office
2.	TA expert to TR	IR	Garg	Shreya	Central Office
3.	Approver	IR	Gautam	Ashok	Central Office

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 Error caused due to recording monitored data in main meter tabular report sheets	Low	The tabular reports are generated from SCADA system and then finalized by an independent division.	All invoices and final tabular report issued by planification department were verified.
2.	Error in transferring the recorded data to ER sheet	Medium	The procedure for transferring in the final tabular report readings to the ER calculation sheet is manual, thus increasing the chances of error.	All invoices were cross-checked, and no such errors were identified.

3.	Error in applying the formulae in the emission reduction calculation sheet	Medium	The calculation method has been prescribed in the applied methodologies and further detailed in the registered PDD. The project involves large data and the final emission reduction are a result of complex mathematical equations.	The emission reduction calculation sheet has been reviewed in detail by the assessment team. Each step for the calculation has been thoroughly checked to confirm the final numbers.
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C.2. Consideration of materiality in conducting the verification

Monitored Parameter (Symbol / Description)	Reporting Frequency	Number of Discrete Data (Total)	Sample selected for verification Sample (%)	Type of error identified	Impact on ERs	
					ERs Impacted (Sample)	ERs Impacted (Population based on extrapolation)
EG _{facility}	Monthly	19	19 (100%)	No error	No impact (100%)	No impact (100%)

SECTION D. Means of verification

D.1. Desk review

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by assessment team using dedicated protocols (checklists). The assessment team cross checks the information provided in the documents (MR) and information from sources other than those used, if available, and conducts independent background investigations. Earthood conducted a desk review as under;

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

The list of documents reviewed during verification is provided under Appendix 3 of this report.

D.2. On-site inspection

Duration of on-site inspection: 21/09/2022				
No.	Activity performed on-site	Site location	Date	Team member
1.	Opening Meeting: Introduction, scope and objective of work, roles and responsibilities of audit team, resources required, and timetable of the onsite audit including venue for closing meeting and any concerns from PP.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
2.	Implementation and operation of project activity (project boundary, technology, project equipment, monitoring and metering equipment) as per registered PDD/previous verification.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
3.	Management and monitoring procedures followed at project site.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
4.	Physical inspection of the project activity: Site visit and interview of monitoring personnel	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
5.	Management and operational system: Documentation, allocation of responsibilities, qualification and training, data recording & archiving, internal audit and management review and emergency procedures.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
6.	Verification checklist: compliance of monitoring procedures followed at project site with registered PDD and monitoring methodology.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
7.	Review of monitored data and relevant document in accordance with registered monitoring plan and applied	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni

	monitoring methodology.			
8.	Review of ER calculations in accordance with applied methodology and relevant tools.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
9.	Compilation of the audit findings.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
10.	Closing Meeting: Submission of the audit findings to the client and agreement on the issues raised and agreement on timelines.	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni
11	Stakeholders Consultation	Jodhpur district in the Indian State of Rajasthan	21/09/2022	Ravi Kant Soni

D.3. Interviews

No	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Tiwari	Ajeet Kumar	VWLLP	21/09/2022	Monitoring of SDG parameters	Ravi Kant Soni
2.	Manda	Gopal	WWIL	21/09/2022	Monitoring of SDG parameters	
3.	Chouhan	Hemant	WWIL	21/09/2022	Monitoring of SDG parameters	Ravi Kant Soni
4.	Singh	Mahaveer	WWIL	21/09/2022	Monitoring of SDG parameters	

Interviews with local stakeholders

ESPL as a part of verification procedure conducted a comprehensive interaction with stakeholders. It was done during the site visit on 21/09/2022. It included interaction with the local villagers and representatives of PP. The assessment team have interviewed the local stakeholders and they were questioned for various topics as summarized below;

- Effect of project on their livelihood and income
- Any problem related to wind turbine installation in nearby areas
- Does the noise generate by wind turbines disturbs any of their activity or comfort?
- Are they happy with the benefits and development as CSR activity of the PP?
- General feedback about wind farms
- Do they know about the grievance and feedback back register/mechanism?

- Any concerns or feedback; Positive (P) and Negative (N)

No.	Name of Stakeholder	Address	Feedback (Positive/Negative/Concerns)
1.	Ratan Singh	Local villager	Positive
2.	Rajaram	Local villager	Positive
3.	Bhai Khan	Local villager	Positive
4.	Madan Singh	Local villager	Positive
5.	Madnaram	Local villager	Positive
6.	Kishan Singh	Local villager	Positive
7.	Gajendra Singh	Local villager	Positive
8.	Dilip Singh	Local villager	Positive

D.4 Sampling approach

The project did not require sampling plan and hence No Sampling approach was applied.

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	-	-	-
Compliance of the project implementation and operation with the registered PDD	-	-	-
Post-registration changes	-	-	-
Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines	-	-	-
Compliance of monitoring activities with the registered monitoring plan	-	-	-
Compliance with the calibration frequency requirements for measuring instruments	-	CAR #3	-
Assessment of data and calculation of emission reduction or net removal	-	-	-
Assessment of reported sustainable development co-benefits	-	-	-
Compliance of SDG outcomes monitoring activities with the approved GS PDD/Transition annex	CL #1	CAR #1	-
Compliance with other GHG emission trading programs	-	-	-
Others (please specify)	-	CAR #2(Grievance Mechanism)	-
Total	01	03	00

SECTION E. Verification findings

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

Means of verification	The monitoring report form used is GS4GG MR template form version 1.1, which was the appropriate form and the latest version available at the time of verification. All the sections of the form were filled as per the guidelines and gave all the relevant details.
Findings	No finding was raised
Conclusion	The monitoring report is found to be complying with the monitoring report form.

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

This is third verification of the project activity and NO FAR was raised at the time of previous verification. Assessment team confirm this with previous verification/14/.

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

Means of verification	<p>This project activity is the generation of electricity from WTGs supplying the generated electricity to the NEWNE grid of India. The project is in Jodhpur district of Rajasthan state in India and has an installed capacity of 20 MW (25 WTGs x 0.8 MW/WTG). This was confirmed from document review of commissioning certificates /10/.</p> <p>The commercial operation of the project activity had been started on 30/09/2011 and 09/11/2011, which was verified vide commissioning certificates/10/ and corroborated by monthly breakup sheets/19/ prepared by O&M contractor and approved by state utility, indicating the start date of commercial operation.</p> <p>The technical specifications of WTGs were verified through the nameplate details (imprinted/placed at the bottom of WTG tower) available at the WTGs physically checked during the site visit and were found to be consistent with the details provided in the registered PDD /1.1/.</p> <p>The project is located between latitude 26°,25',29.3" to 26°,30',42.1"N and longitude 72°,46',18.8" to 72°,52',27.3"E. Location of the project was verified through Google Map (https://www.gps-coordinates.net/) and found consistent with the same mentioned in the registered PDD and MR.</p> <p>The WTGs belongs to project activity connected to various clusters and each cluster has exclusive dedicated metering arrangement at 33kV at project site. Similarly, the WTGs of other project developers (non-project activity) are also connected to separate clusters having exclusive dedicated metering arrangement at 33kV at project site. All the cluster meters (for the project activity and non-project activity) are further connected at 132 kV Wind World sub-station (Salodi sub-station, Jodhpur) through 33 kV bus. At WWIL pooling sub-station SALODI electricity is stepped up to 132kV, wherein the backup meter (one main & one check meter) connected. From WWIL</p>
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	<p>pooling sub-station electricity is transmitted to state utility (DISCOM) sub-station (PS-8 Narwa Sub-station) through 132Kvtransmission line/ EHV line wherein billing meter (one main & one check meter) is connected. At EB sub-station metering is done at 132kv billing meter. From EB substation electricity is further transmitted to NEWNE grid.</p> <p>It was observed during the site visit that, the WTGs (project activity and non-project) are connected to the sub-station meters (common metering points) at Jaisalmer and Jodhpur site.</p> <p>Hence, in order to calculate the net electricity exported to the grid by the WTGs of the project activity alone, an apportioning procedure is followed which has been correctly described in section C of the MR/05/ and in section B.7.2 of the registered PDD/1.1/.</p> <p>The rated capacities of transformers were also indicated at the metering points located in the DISCOM substation/07/ and the same was found to be consistent with description given in the registered PDD. Furthermore, capacity of transformers verified through the specifications mentioned at the name plate of transformer/07/ and found consistent with registered PDD /1.1/ and MR.</p> <p>The PP has signed PPA/30/ with state utility for the sale of electricity to the grid and has been supplying electricity in compliance with the PPA as confirmed from the monthly invoices /20/. The project was registered as a CDM project on 25/07/2012 /13/. The PP has considered a fixed crediting period for the project activity from 01/08/2012 to 31/07/2022. This is the third verification of the project activity covering the period from 01/01/2021 to 31/07/2022.</p> <p>All 25 WTGs were fully functional, and the assessment team verified this during the site visit/07/.</p> <p>The project implementation, with reference to GS passport and approved transition annex, was checked on site to confirm the following:</p> <ul style="list-style-type: none"> • The monitoring system including the measurement of parameters, data collection and archiving was also implemented and operated inline to the GS passport/01/ and approved transition annex/1.2/, • The emission reduction was achieved in compliance with applied methodology, GS passport and approved transition annex/1.2/. • The project contributes to the sustainable development which includes, but not limited to, enhancement of local economy, creating employment and many other benefits to the rural population.
<p>Findings</p>	<p>No issues identified and hence finding was not raised for this section</p>
<p>Conclusion</p>	<ul style="list-style-type: none"> • In view of the information’s verified during the site visit, the verification team can confirm that all physical features (technology, project equipment, and monitoring and metering equipment) of the registered GS project activity are in place and that the project participants have operated the project activity as per the registered PDD. • No information regarding data and variables was identified that may surpass the estimated quantity of ERs in the registered PDD.

	<ul style="list-style-type: none"> The emission reductions achieved during the current monitoring period are (47,201 tCO₂e), that is within the estimated quantity (64,918 tCO₂e) in the registered PDD for the comparable period.
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E.4. Post-registration change

E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

Not Applicable

E.4.2. Corrections

The following correction is identified during the current monitoring period:

In accordance with the PDD template guidelines ex-ante parameters shall be reported under section B.6.2 and ex-post parameters under section B.7.1. However due to copy paste error the PD had reported both ex-post and ex-ante parameters under section B.6.2 and B.7.1 as well. Furthermore, the project was registered under GS applying the meth ACM0002 V17, however the GS PDD wrongly mentioned the meth as ACM0002 V 12.2.0.

Item #	Registered GS PDD ,version 01	Revised GS PDD, version 02	VVB remark
Section B..6.2 Ex-ante parameters	$EF_{OM,y}$ $EF_{BM,y}$ $EF_{CM,y}$ $EG_{facility,y}$ $EG_{Import,y}$ $EG_{JMR,Import}$ $EG_{JMR,Export}$ $EG_{controller}$ $\Sigma EG_{controller,i}$ $\Sigma EG_{controller,j}$ Quality of Employment (Unemployment rate, by sex, age and persons with disabilities) Human and intuitional capacity	$EF_{OM,y}$ $EF_{BM,y}$ $EF_{CM,y}$	The PD has removed the ex-post parameters from section B.6.2 following the GS MR template filing guidelines.
Section B..7.1 Ex-post parameters	$EF_{OM,y}$ $EF_{BM,y}$ $EF_{CM,y}$	$EG_{facility,y}$ $EG_{Import,y}$ $EG_{JMR,Import}$	The PD has removed the ex-ante parameters from section B.7.1

	$EG_{facility,y}$ $EG_{Import,y}$ $EG_{JMR,Import}$ $EG_{JMR,Export}$ $EG_{controller}$ $\Sigma EG_{controller,i}$ $\Sigma EG_{controller,j}$ Quality of Employment (Unemployment rate, by sex, age and persons with disabilities) Human and intuitional capacity	$EG_{JMR,Export}$ $EG_{controller}$ $\Sigma EG_{controller,i}$ $\Sigma EG_{controller,j}$ Quality of Employment (Unemployment rate, by sex, age and persons with disabilities) Human and intuitional capacity	following the GS MR template filing guidelines.
Applied methodology	ACM0002 Version 12.2.0	ACM0002 Version 17	The project was registered under CDM using the meth ACM0002 V12.2.0, however during the GS registration meth ACM0002 V 17 (latest version available) was applied, as mentioned in the GS Passport. The PD has mistakenly mentioned the version of ACM0002 as 12.2.0 in the GS PDD v01 during GS CER to GS VER transition.

It is to be noted that all the corrections are due to copy paste/ typo error and the PD has made the necessary changes in the revised GS PDD. In line with the requirements of paragraph 8.1.1 - 8.1.2 of GS4GG VVS v01, the VVB can confirm that:

- a) The corrections identified in the registered GS PDD comply with the relevant requirements stated in Section 4 of Design Change Requirements.
- b) The corrected information is an accurate reflection of actual project information; and the corrected parameters are in accordance with applicable standard documents i.e., methodology(ies) or applicable requirements.

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

Not Applicable

E.4.4. Inclusion of monitoring plan

Not Applicable

E.4.5. Permanent changes from registered monitoring plan, monitoring methodology or standardized baselines

Not Applicable

E.4.6. Changes to the project design

Not Applicable.

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

Not Applicable.

E.5. Compliance of the registered monitoring plan with the applied methodologies including applicable tool and standardized baseline

Means of verification	Compliance of the monitoring activities related to parameters used in the emission reduction calculations were already verified during the site visit. The monitoring plan outlined in the revised approved PDD is in accordance with the applied methodology and correctly applied by the registered CDM project activity. During the site visit the verification team has verified the sustainability monitoring plan and found to be following the registered passport and approved transition annex/1.2/.
Findings	No issues identified in section hence finding was not raised.
Conclusion	The monitoring plan outlined in the approved transition annex/1.2/ is in accordance with the applied methodology /08/ and correctly applied by the project activity.

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

Relevant SDG Indicator 13.2.1: Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)

Operating Margin Emission Factor of NEWNE Electricity Grid (EF_{grid,OM,y} tCO₂e/MWh)

Means of verification	The value of this parameter is considered as 0.99431. This was checked with the registered PDD /1.1/ and CO2 Baseline Database for Indian Power Sector”, version 06 published by the Central Electricity Authority, Ministry of Power, Government of India /29/.
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Findings	No finding was raised
Conclusion	The value in the monitoring report /05/ and corresponding emission reduction calculations spreadsheet /06/ are consistent with the registered PDD (page 30). The applied value is correct and justified.

E.6.1.2 Build Margin Emission Factor of NEWNE Electricity Grid (EF_{grid, BM, y}, tCO_{2e}/MWh)

Means of verification	The value of this parameter is considered as 0.81231. This was checked with the registered PDD /1.1/ and CO2 Baseline Database for Indian Power Sector", version 06 published by the Central Electricity Authority, Ministry of Power, Government of India /29/.
Findings	No finding was raised
Conclusion	The value in the monitoring report /05/ and corresponding emission reduction calculations spreadsheet /06/ are consistent with the registered PDD/1.1/ (page 30). The applied value is correct and justified.

E.6.1.3 Combined Margin Emission Factor of NEWNE Electricity Grid (EF_{grid, CM, y}, tCO_{2e}/MWh)

Means of verification	The value of this parameter is considered as 0.94881. This was checked with the registered PDD /1.1/ and CO2 Baseline Database for Indian Power Sector", version 06 published by the Central Electricity Authority, Ministry of Power, Government of India /29/.
Findings	No finding was raised.
Conclusion	The value in the monitoring report /05/ and corresponding emission reduction calculations spreadsheet /06/ are consistent with the registered PDD/1.1/ (page 31). The applied value is correct and justified.

E.6.2. Data and parameters monitored (SDG outcomes monitoring)

E.6.2.1: Net electricity generation supplied to the grid by the Project activity, EG_{facility, y} (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

Means of verification	Criteria/Requirements	Assessment/Observations
	Measuring /Reading /Recording frequency	The parameter is calculated as difference of EG _{Export, y} and EG _{Import, y} and recorded monthly basis in line with the approved monitoring plan. EG _{facility, y} = EG _{Export, y} - EG _{Import, y} Where, EG _{Export} = Electricity exported by the project activity to the grid EG _{Import} = Electricity imported by the project activity to the grid
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes /	Yes. In line with the approved monitoring plan, this parameter is recorded on monthly basis in the breakup sheets issued by state utility.

	No)	
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	Not applicable.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not applicable.
	Calibration frequency /interval:	Not applicable.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable.
	How were the values in the monitoring report verified?	The data transfer process for the said parameter is as follows: The Joint meter reading at all the metering

		<p>points at DISCOM substation is taken by the representatives of DISCOM (RRVPNL) in the presence of WWIL officials in the form of JMRs.</p> <p>Based on the data recorded in the JMRs and generation recorded at WTGs panel meters, electricity exported/imported to/from the grid by the project activity is calculated by O&M contractor, using the apportioning procedure and breakup sheets for each project developer is prepared which is endorsed by state utility(DISCOM).</p> <p>Cumulative value of $EG_{facility, y}$ for entire monitoring period is reported in the monitoring report, however monthly values are reported in the ER calculation sheet. The monthly values were verified from the breakup sheets issued by state utility and found to be consistent.</p> <p>Value of this parameter for the current monitoring period is 49,748.698 MWh.</p>
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Monthly reported values of $EG_{facility, y}$ for the current monitoring period were further cross-checked with the monthly invoices raised by the PP /20/ to state utility and found to be consistent.</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, all the stakeholders, namely, the Grid Authority (DISCOM), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.</p>
	<p>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</p>	<p>No such issues.</p>
<p>Findings</p>	<p>No finding was raised.</p>	
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring</p>	

	results were recorded consistently as per the approved frequency in the monitoring plan.
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E.6.3.2: Electricity export to the grid by the Project activity, $EG_{Export,y}$ (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis using following measured parameters: (a) Monthly export readings recorded at grid-interconnection point (JMR Reading) and (b) Generation recorded at LCS meter at each WTG.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The monitoring of parameter has been implemented in accordance with the registered monitoring plan.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated using the measured values. There are common metering (for the project activity and non-project activity WTGs) arrangement done at 132 kV Wind World sub-station (Salodi sub-station, Jodhpur) through 33 kV bus, from where the electricity supplied to DISCOM sub-station (PS-8 Narwa,Jodhpur) . There is one set of billing meters (main and check meter) is installed at WWIL pooling substation and at DISCOM substation as well. In addition, backup meters are also installed at WWIL substation. The accuracy of the monitoring equipment (energy meters) used to measure the input values used to calculate $EG_{Export,y}$ is 0.2s as verified from the physical inspection of the project activity, which is as per the approved CDM PDD/1.1/ which is as per the norm defined in the PPA/30/. Calibration details of the meters are

	provided under section E.7 of this report.
Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate this parameter is 0.2s as verified from the physical inspection of the project activity, which is as per the registered CDM PDD/1.1/ which is as per the norm defined in the PPA/30/.
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. Calibration certificates/23/ are verified and confirmed that accuracy of monitoring instruments is valid for the entire range.
Calibration frequency /interval:	Calibration frequency of the meters is annual/23/.
Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. The calibration frequency is in line with the monitoring plan as outlined in the registered PDD/1.1/.
Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by Darsh Calibration Pvt Limited which NABL Accredited entity/23/.
How were the values in the monitoring report verified?	The data transfer process for the said parameter is as follows: The Joint meter reading at all the metering points at DISCOM substation is

		<p>taken by the representatives of DISCOM in the presence of WWIL officials in the form of JMRs.</p> <p>Based on the data recorded in the JMRs and generation recorded at WTGs panel meters, electricity exported/imported to/from the grid by the project activity is calculated by O&M contractor, using the apportioning procedure and breakup sheets for each project developer is prepared.</p> <p>Cumulative value of $EG_{Export,y}$ for entire monitoring period is reported in the monitoring report, however monthly values are reported in the ER calculation sheet. The monthly values were verified from the monthly breakup sheets/19/ issued by state utility and found to be consistent.</p> <p>Value of this parameter for the current monitoring period is 51,883.531 MWh.</p>
	If applicable, has the reported data been cross-checked with other available data?	Monthly reported values of $EG_{Export,y}$ for the current monitoring period were further cross-checked with the monthly invoices raised by the PP /20/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes, all the stakeholders, namely, the Grid Authority (RRVPL), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	No finding was raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The	

	monitoring results were recorded consistently as per the approved frequency in the monitoring plan.
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E.6.3.3: Electricity Import from grid by the Project activity, $EG_{Import,y}$ (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis using following measured parameters: (a) Monthly import readings recorded at grid-interconnection point (JMR Reading) and (b) Generation recorded at LCS meter at each WTG.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The monitoring of parameter has been implemented in accordance with the registered monitoring plan.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated using the measured values. There are common metering (for the project activity and non-project activity WTGs) arrangement done at 132 kV Wind World sub-station (Salodi sub-station, Jodhpur) through 33 kV bus, from where the electricity supplied to DISCOM sub-station (PS-8 Narwa, Jodhpur) . There is one set of billing meters (main and check meter) is installed at WWIL substation and at DISCOM substation as well. In addition, backup meters are also installed at WWIL substations. The accuracy of the monitoring equipment (energy meters) used to measure the input values used to calculate $EG_{Import,y}$ is 0.2s as verified from the physical inspection of the project activity, which is as per the approved CDM PDD/1.1/ which is as per the norm defined in the PPA/19/. Calibration details of the meters are

		provided under section E.7 of this report.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate this parameter is 0.2s as verified from the physical inspection of the project activity, which is as per the registered CDM PDD/1.1/ which is as per the norm defined in the PPA/30/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. Calibration certificates/23/ are verified and confirmed that accuracy of monitoring instruments is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is annual/1.1/.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. The calibration frequency is in line with the monitoring plan as outlined in the registered PDD/1.1/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by Darsh Calibration Pvt Limited which is a NABL Accredited entity/23/.
	How were the values in the monitoring report verified?	The data transfer process for the said parameter is as follows: The Joint meter reading at all the metering points at both DISCOM

		<p>substations is taken by the representatives of DISCOM in the presence of WWIL officials in the form of JMRs.</p> <p>Based on the data recorded in the JMRs and generation recorded at WTGs panel meters, electricity exported/imported to/from the grid by the project activity is calculated by O&M contractor, using the apportioning procedure and breakup sheets for each project developer is prepared.</p> <p>Cumulative value of $EG_{Import,y}$ for entire monitoring period is reported in the monitoring report, however monthly values are reported in the ER calculation sheet. The monthly values were verified from the monthly breakup sheets/19/ issued by state utility and found to be consistent.</p> <p>Value of this parameter for the current monitoring period is 54.081 MWh.</p>
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Monthly reported values of $EG_{Import,y}$ for the current monitoring period were further cross-checked with the monthly invoices raised by the PP /20/ to state utility and found to be consistent.</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, all the stakeholders, namely, the Grid Authority (RRVPNL)), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.</p>
	<p>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</p>	<p>No such issues.</p>
<p>Findings</p>	<p>No finding was raised.</p>	
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods</p>	

	and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.
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E.6.3.4: Electricity export by project activity & non-project activity recorded by main meter installed at DISCOM sub-station, EGJMR, Export (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is continuously monitored and reported monthly in line with the registered monitoring plan.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The monitoring of parameter has been implemented in accordance with the registered monitoring plan.
	Monitoring equipment	This parameter is measured through ABT meters installed at substation. The accuracy of the monitoring equipment used to measure the values is 0.2s, which is as per the registered PDD/1.1/ which is as per the norm defined in the PPA/30/.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer’s specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate this parameter is 0.2s as verified from the physical inspection of the project activity, which is as per the registered CDM PDD/1.1/ which is as per the norm defined in the PPA/30/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. Calibration certificates/23/ are verified and confirmed that accuracy of monitoring instruments is valid for the entire range.

	<p>Calibration frequency /interval:</p>	<p>Calibration frequency of the meters is annual/1.1/.</p>
	<p>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?</p>	<p>Yes. The calibration frequency is in line with the monitoring plan as outlined in the registered PDD/1.1/.</p>
	<p>Is the calibration of measuring equipment carried out by an accredited person or institution?</p>	<p>Yes, the calibration is conducted by Darsh Calibration Pvt Limited which is a NABL Accredited entity/23/.</p>
	<p>How were the values in the monitoring report verified?</p>	<p>The monthly values of this parameter are directly sourced from JMRs prepared by DISCOM/22/. The PP has correctly reported the monthly values in the emission reduction spread sheet/08/.</p> <p>The value of $EG_{JMR, Export}$ for the current monitoring period is 23,825.780 MWh.</p>
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Not applicable</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, all the stakeholders, namely, the Grid Authority (RRVNL), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.</p> <p>The electricity exported by project activity & non-project activity is recorded by main meters (billing meters) installed at DISCOM sub-station metering points. All the tri-vector energy meters have the capability of continuous measurement, which was verified during the site visit.</p> <p>Joint meter reading is taken by the officials of DISCOM in the presence of the WWIL representative at the metering points. JMR records the readings of both the main and check meter. Both values have been checked and are found to be comparable.</p>

	<p>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</p>	<p>No such issues.</p>
Findings	<p>No finding was raised.</p>	
Conclusion	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.</p>	

E.6.3.5: Electricity import by project activity & non-project activity recorded by main meter installed at DISCOM sub-station, EG_{JMR, import} (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

<p>Means of verification</p>	<p>Criteria/Requirements</p>	<p>Assessment/Observation</p>
	<p>Measuring /Reading /Recording frequency</p>	<p>The parameter is continuously monitored and reported monthly in line with the registered monitoring plan.</p>
	<p>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</p>	<p>The monitoring of parameter has been implemented in accordance with the registered monitoring plan.</p>
	<p>Monitoring equipment</p>	<p>This parameter is measured through ABT meters installed at substation. The accuracy of the monitoring equipment used to measure the values is 0.2s, which is as per the registered PDD/09/ which is as per the norm defined in the PPA/30/.</p>

	<p>Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?</p>	<p>The accuracy of the monitoring equipment used to measure the input values used to calculate this parameter is 0.2s as verified from the physical inspection of the project activity, which is as per the registered CDM PDD/1.1/ which is as per the norm defined in the PPA/30/.</p>
	<p>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</p>	<p>Yes. Calibration certificates/23/ are verified and confirmed that accuracy of monitoring instruments is valid for the entire range.</p>
	<p>Calibration frequency /interval:</p>	<p>Calibration frequency of the meters is annual/1.1/.</p>
	<p>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?</p>	<p>Yes. The calibration frequency is in line with the monitoring plan as outlined in the registered PDD/1.1/.</p>
	<p>Is the calibration of measuring equipment carried out by an accredited person or institution?</p>	<p>Yes, the calibration is conducted by Darsh Calibration Pvt Limited which is a NABL Accredited entity/23/.</p>
	<p>How were the values in the monitoring report verified?</p>	<p>The monthly values of this parameter are directly sourced from JMRs prepared by DISCOM/22/. The PP has correctly reported the monthly values in the emission reduction spread sheet/08/.</p> <p>The value of EG_{JMR,import} for the current monitoring period is 247.86 MWh.</p>

	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Not applicable</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, all the stakeholders, namely, the Grid Authority (RRVPNL)), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.</p> <p>The electricity exported by project activity & non-project activity is recorded by main meters (billing meters) installed at DISCOM sub-station metering points. All the tri-vector energy meters have the capability of continuous measurement, which was verified during the site visit.</p> <p>Joint meter reading is taken by the officials of DISCOM in the presence of the WWIL representative at the metering points. JMR records the readings of both the main and check meter. Both values have been checked and are found to be comparable.</p>
	<p>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</p>	<p>No such issues.</p>
<p>Findings</p>	<p>No finding was raised.</p>	
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.</p>	

E.6.3.6:

Net electricity generation (Gross Export – Gross Import) by a WEC of project activity or non-project activity, as measured at the controller (LCS meter) at project site. Each WEC has exclusive LCS meter that records net electricity generation (Gross Export – Gross Import) from the WEC (project or non-project).

Where,

i is any WEC between 1 to j+ k.

j is number of WEC of project activity connected to main meter at DISCOM substation and backup meter at WWIL substation.

k is number of WEC of non-project activity connected to main meter at DISCOM substation and backup meter at WWIL substation, $EG_{Controller, i}$ (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is continuously measure, recorded hourly and reported monthly in line with the registered monitoring plan.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. In line with the approved monitoring plan, this parameter is recorded on monthly basis in the monthly generation reports (MGR) issued by O&M contractor/21/.
	Monitoring equipment	This parameter is measured through LCS meter (controller panel meter) integrated with WTG and monitored via online monitoring system (SCADA).
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The LCS meter at each WTG is a microprocessor based multi-function relay (MFR) which is highly accurate, and it monitors the electricity generated by each WTG. The relay runs software to sample inputs and numerically processes the information. It is therefore highly unlikely for this relay to wrongly read/record data.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes, the accuracy of LCS meter is valid for the entire measuring range or do different accuracy levels apply to different measuring ranges.
	Calibration frequency /interval:	It is not possible to calibrate controller because it is integral part of WTG cannot be removed during operation. Letter of undertaking from WTG supplier/31/ regarding the calibration of controller is provided by PP and same has been confirmed through interview of site personnel during site visit.
	Is the calibration interval in line with	Not applicable

	<p>the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer’s specifications?</p>	
	<p>Is the calibration of measuring equipment carried out by an accredited person or institution?</p>	<p>Not applicable</p>
	<p>How were the values in the monitoring report verified?</p>	<p>The data is generated and recorded in the SCADA system automatically. The O&M contractor, based on recorded data in the SCADA system, prepares the daily generation reports. These daily generation reports are used to prepare monthly generation reports. The monitoring procedures were sufficiently robust to enable accurate transmission of data.</p> <p>Monthly values are reported in the ER calculation sheet. The monthly values were verified from the monthly generation reports/21/ issued by state utility and found to be consistent.</p>
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Not applicable, as the generation recorded at the LCS meter is cross verified by the energy calculated by inverting system installed in the WTGs.</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Grid Authority (RRVPNL), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.</p>
	<p>In case project participants have temporarily not monitored the parameter, has either i) a deviation</p>	<p>No such issues.</p>

	been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	
Findings	No finding was raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3.7:

Summation of net electricity generation (Gross Export-Gross Import) by all WEC (i number of WECs) of project activity (j number of WECs) and non-project activity (k number of WECs), as measured at the controller (LCS meter) at project site, Each WEC has exclusive LCS meter that records net electricity generation (Gross Export-Gross Import) from the WEC (project or non-project).

Where,

i is any WEC between 1 to j+ k and connected to main meter (JMR/billing meter) at DISCOM substation and backup meter at Enercon substation.

j is number of WECs of project activity connected to main meter (JMR/billing meter) at DISCOM substation and backup meter at Enercon substation.

k is number of WEC of non-project activity connected to main meter (JMR/billing meter) at DISCOM substation and backup meter at Enercon substation, $\Sigma EG_{Controller,j}$ (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is continuously measured, recorded hourly and reported monthly in line with the registered monitoring plan.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. In line with the approved monitoring plan, this parameter is recorded on monthly basis in the monthly generation reports (MGR) issued by O&M contractor/21/.
	Monitoring equipment	This parameter is measured through LCS meter (controller panel meter) integrated with WTG and monitored via online monitoring system (SCADA).

	<p>Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?</p>	<p>The LCS meter at each WTG is a microprocessor based multi-function relay (MFR) which is highly accurate, and it monitors the electricity generated by each WTG. The relay runs software to sample inputs and numerically processes the information. It is therefore highly unlikely for this relay to wrongly read/record data.</p>
<p>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?</p>	<p>Yes, the accuracy of LCS meter is valid for the entire measuring range or do different accuracy levels apply to different measuring ranges.</p>	
<p>Calibration frequency /interval:</p>	<p>It is not possible to calibrate controller because it is integral part of WTG cannot be removed during operation. Letter of undertaking from WTG supplier/31/ regarding the calibration of controller is provided by PP and same has been confirmed through interview of site personnel during site visit.</p>	
<p>Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?</p>	<p>Not applicable</p>	
<p>Is the calibration of measuring equipment carried out by an accredited person or institution?</p>	<p>Not applicable</p>	

	<p>How were the values in the monitoring report verified?</p>	<p>The data is generated and recorded in the SCADA system automatically. The O&M contractor, based on recorded data in the SCADA system, prepares the daily generation reports. These daily generation reports are used to prepare monthly generation reports. The monitoring procedures were sufficiently robust to enable accurate transmission of data.</p> <p>Monthly values are reported in the ER calculation sheet. The monthly values were verified from the monthly generation reports/21/ issued by state utility and found to be consistent.</p>
	<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Not applicable, as the generation recorded at the LCS meter is cross verified by the energy calculated by inverting system installed in the WTGs.</p>
	<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Grid Authority (RRVNL), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.</p>
	<p>In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?</p>	<p>No such issues.</p>
<p>Findings</p>	<p>No finding was raised.</p>	
<p>Conclusion</p>	<p>The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.</p>	

E.6.3.8:

Summation of net electricity generation (Gross Export – Gross Import) by all the WECs (j number of WECs) of project activity, as measured at the controller (LCS meter) at project site. Each WEC has exclusive LCS meter that records net electricity generation (Gross Export – Gross Import) from the WEC (project or

non -project).

j is number of WEC of project activity connected to main meter at DISCOM substation and backup meter at WWIL substation, $\Sigma EG_{Controller, j}$ (MWh)

Relevant SDG Indicator 7.2.1: Renewable energy share in the total final energy consumption

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is continuously measure, recorded hourly and reported monthly in line with the registered monitoring plan.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. In line with the approved monitoring plan, this parameter is recorded on monthly basis in the monthly generation reports (MGR) issued by O&M contractor/21/.
	Monitoring equipment	This parameter is measured through LCS meter (controller panel meter) integrated with WTG and monitored via online monitoring system (SCADA).
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The LCS meter at each WTG is a microprocessor based multi-function relay (MFR) which is highly accurate, and it monitors the electricity generated by each WTG. The relay runs software to sample inputs and numerically processes the information. It is therefore highly unlikely for this relay to wrongly read/record data.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes, the accuracy of LCS meter is valid for the entire measuring range or do different accuracy levels apply to different measuring ranges.
	Calibration frequency /interval:	It is not possible to calibrate controller because it is integral part of WTG cannot be removed during operation. Letter of undertaking from WTG supplier/31/ regarding the calibration of controller is provided by PP and same has been

		confirmed through interview of site personnel during site visit.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Not applicable
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Not applicable
	How were the values in the monitoring report verified?	<p>The data is generated and recorded in the SCADA system automatically. The O&M contractor, based on recorded data in the SCADA system, prepares the daily generation reports. These daily generation reports are used to prepare monthly generation reports. The monitoring procedures were sufficiently robust to enable accurate transmission of data.</p> <p>Monthly values are reported in the ER calculation sheet. The monthly values were verified from the monthly generation reports/21/ issued by state utility and found to be consistent.</p>
	If applicable, has the reported data been cross-checked with other available data?	Not applicable, as the generation recorded at the LCS meter is cross verified by the energy calculated by inverting system installed in the WTGs.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Grid Authority (RRVNL), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.

	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	No finding was raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.3.9: Quality of Employment

Relevant SDG Indicator 8.5.2: Unemployment rate, by sex, age and persons with disabilities

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Quality of employment generated by the project activity is monitored. Project participant conducts various activities on regular basis for improving the skills and thereby quality of employment of its employees. Various indicators of quality of employment viz. quality job creation, working conditions, health care facilities, skill build-up through workshops and trainings, putting safeguard in place and living standard of the plant staff are monitored as and when such activities are organised/12,15,16/.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring and recording frequency are in line with the monitoring plan of approved transition annex/1.2/. The approved transition annex requires the quality of employment to be monitored on annual basis. The assessment team confirms that the monitoring of quality of employment with reference to various parameters viz. training, occupational health, safety of employees and working environment is being done on annual basis

		/12,15,16,17/.						
	How were the values in the monitoring report verified?	<p>The following training programs/12/ to enhance the safety awareness, operational skills and occupational health management have been organized during the current monitoring period.</p> <table border="1"> <thead> <tr> <th>Training Objective</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Fire Aid & Firefighting programme related to safety awareness and job-related safety</td> <td>18/08/2021</td> </tr> <tr> <td>Electrical Safety & LOTO Training</td> <td>2022</td> </tr> </tbody> </table>	Training Objective	Date	Fire Aid & Firefighting programme related to safety awareness and job-related safety	18/08/2021	Electrical Safety & LOTO Training	2022
Training Objective	Date							
Fire Aid & Firefighting programme related to safety awareness and job-related safety	18/08/2021							
Electrical Safety & LOTO Training	2022							
	If applicable, has the reported data been cross-checked with other available data?	Yes, the reported data has been cross checked with the quantitative information about the quality of employment which includes the records of HR, training, health care facilities etc. are maintained /9,12/.						
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Counting of the number of trainings and respective attendees is done by a training attendance sheet which states the programme name, venue, faculty, date and timing, attendee details (employee code, name, designation and department). Each training attendance sheet has a unique form number. Numbers of jobs created has been categorized and records are maintained accordingly. Records of any activity related to the quality of employment is maintained by HR.						
Findings	CL #1 and CAR #1 was raised and resolved.							
Conclusion	The parameter has been monitored appropriately, in accordance with the sustainability monitoring plan (as per measurement methods and procedures to be applied). The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.							

E.6.3.10: Human and Institutional capacity

Relevant SDG Indicator 3.8.1: Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	It's a sustainable development parameter which monitors the number of number of initiatives, events, and programmes, primarily Health and Education Camps and villagers directly or indirectly benefited by

		<p>the CSR activity initiatives, referring to the project, undertaken by the project proponent. This parameter is monitored on annual basis.</p>
<p>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</p>	<p>The number of local villagers, directly and indirectly benefited by the project activity, is monitored annually which is found in line to the frequency set in approved transition annex/1.2/.</p>	
<p>How were the values in the monitoring report verified?</p>	<p>Project proponent has initiated the number of CSR programmes/11/ pertaining to capacity building, health, education etc. The project devloper has launched CSR program to ensure better Health, Education, Sanitation & Hygiene to under prevailed government school students.</p> <p>During the current monitoring period the PP has launched Safe Drinking Water facility programs and RO systems were installed in 10 Government schools. The assessment team has visited the concerned schools and confirmed that thousands of School Children have been benefited with the RO System installed. It is one of the greatest gifts one could donate to a community.</p> <p>The assessment team has verified the CSR records /11/ and interviewed the stakeholders during the site visit and it can be concluded that the number estimated for the beneficiaries in the MR with reference to each initiative, is reasonable and conservative. It is also important to note that the social initiatives take care of long term and broad impacts.</p>	
<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>The parameter was verified using documented evidence/11/</p> <ul style="list-style-type: none"> • CSR record: "Photographs for ration distribution" • Acknowledgement and feedback letters regarding installation of RO systems, from Principals of various Government schools. • Interviews of school's staff. • Local villager's interview and on-site observation. • Photographs relevant to activity, 	
<p>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>Yes, during the site visit it is assured that the project proponent has appropriately maintained the records for the CSR activities, hence it can be confirmed that the QA//QC process is in place.</p>	

Findings	CL #1 and CAR #1 was raised and resolved.
Conclusion	The parameter has been monitored appropriately, in accordance with the sustainability monitoring plan (as per measurement methods and procedures to be applied). The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.

E.6.3.11: Quantitative employment and income generation

Relevant SDG Indicator 8.5.2: Unemployment rate, by sex, age and persons with disabilities

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	This is a sustainable development parameter to monitor the total number of employment opportunities created. Total number of jobs created for the local population is monitored on annual basis.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The monitoring frequency is in line with the approved transition annex /1.2/.
	How were the values in the monitoring report verified?	Total number of jobs created by the project is 09 which include technical WWIL staff, security guards and office boy. This is verified from the HR records that all local guards belong to the local areas/09/. Also, most of the staff of WWIL is from the local areas however it does have some senior personal from outside. The local contracts were also found from the local nearby areas. The assessment team has interviewed the guards and observed that almost all the personnel were unemployed before taking up the job of security guards with the project developer. Therefore, the assessment team is in opinion that the project activity contributes to the livelihood of the poor. In addition to the direct jobs created, quite a few indirect jobs were created by the project activity like frequent visits to the project site by various stakeholders of the project (project developers, technicians, auditors, vendors, and suppliers) gives rise to a demand for various support services in the local area. This results in increased livelihood options and income generation for the local population and estimation of such number is a bit difficult task.
If applicable, has the reported data been cross-checked with other available data?	The reported data has been cross checked with the HR records maintained by the project proponent and interviewing the local stakeholders during the site visit.	

	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	The HR department monitors and maintains the up-to-date records of total number of jobs created, necessary QA/QC processes in place.
Findings	CL #1 and CAR #1 was raised and resolved.	
Conclusion	The parameter has been monitored appropriately, in accordance with the sustainability monitoring plan (as per measurement methods and procedures to be applied). The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

E.6.4.Complaints received as a part of grievance mechanism.

Means of verification	The verification team has checked the grievance register maintained at respective site office and confirmed that no formal complaints were received during the current monitoring period. During the site visit interactions with stakeholders(villagers) done by the assessment team and the points discussed are summarized below:		
	Questions asked?	Stakeholder comment/response	Name of stakeholder
	Do you have any problem due to installation of project?	No negative impact on the presence of wind farms. In fact, the development of wind farms will subsequently increase the property value resulting to the overall development in the region.	Rajaram
	Are you aware of the grievance mechanism and complaint procedure?	Yes, we are aware of the same. Site staff visits our place time to time to get feedback from villagers. We also provide our comments in the register maintained at site office and in the lobby of the site office.	Madan Singh
Do you know the contact details of GS registry staff to be communicated in case of any complaint? Contact for regional GS officer: +91 98118 73703 Email Id of regional GS officer: neha.rao@goldstandard.org	Yes, we are aware of the same; all the information is available in the complaint register.	Madnaram	

	Employment's opportunities created due implementation of project activity.	Yes, many job opportunities are created for local villagers.	Ratan Singh
Findings	CAR #2 was raised and resolved.		
Conclusion	Based on the complaint register verified and interviews of local villagers during the site visit, the verification team able to conclude that: <ul style="list-style-type: none"> The grievance mechanism implemented is in place Complaints received from local villagers are consistently recorded, however no formal complaints received during the current monitoring period. 		

E.6.5.Implementation of sampling plan

Means of verification	Not Applicable
Findings	Not Applicable
Conclusion	Not Applicable

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

Means of verification	As per the monitoring plan in the registered PDD/1.1/ the meters are to be tested and calibrated once in a year. The calibration frequency has not been followed in the current monitoring period. The latest calibration reports of meters installed at site have been checked and confirmed that the meters were working satisfactorily, and the errors observed within permissible limits. The project activity metering has been physically inspected during the site visit. The details of monitoring equipment involved in the project activity and their calibration dates are mentioned in Section C of the MR/05/ and are summarised in the tables below. All the meters installed at WWIL substation and state electricity board substations are of accuracy class of 0.2s and a calibration frequency of once in a year.			
	Meter Location	Meter Sr.No	Date of calibration	Is there any delay in calibration?
	PS-8 Sub - station (132 kV, Electricity Board substation)	Main meter: RJB 00354	14/08/2019, 09/02/2021 and 23/07/2022	Y
		Check meter: RJB 00356	14/08/2019, 09/02/2021 and 23/07/2022	Y
	Salodi Sub- station (WWIL substation)	Backup Main meter: RJB 00358	14/08/2019, 09/02/2021 and 23/07/2022	Y
Backup Check meter: RJB 00357		14/08/2019, 09/02/2021 and 23/07/2022	Y	
The above meter details have been verified through the following means: <ul style="list-style-type: none"> Physical inspection of the meters during the site visit 				

	<p>ii. Interviewing the staff at the sub-station iii. The SCADA of the O&M service provider located at the site iv. Calibration certificates</p> <p>The installation and working condition of the meters were checked during the on-site inspection and it was found to be satisfactory. It is evident from the above table that calibration for all the meters has not been conducted as per the calibration frequency mentioned in the registered PDD/1.1/.</p> <p>Assessment of delay in calibration of billing meters:</p> <table border="1" data-bbox="373 515 1396 1167"> <thead> <tr> <th>Meter location</th> <th>Calibration period delayed</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td rowspan="2">PS-8 Sub - station (132 kV, Electricity Board substation)</td> <td>Year 2021: 01/01/2021 to 08/02/2021</td> <td rowspan="4">It is to be noted that the billing cycle starts from first day and ends on last of every month, hence the PP has applied the error factor for the entire months identified under delayed calibration period. For example, error factor is applied from 01/01/2021 to 28/02/2021 to address the calibration delay for the period from 01/01/2021 to 08/02/2021. Similar approach is followed for delayed calibration period identified in the month of Feb 2022.</td> </tr> <tr> <td>Year 2022: 09/02/2022 to 22/02/2022</td> </tr> <tr> <td rowspan="2">Salodi Sub-station (WWIL substation)</td> <td>Year 2021: 01/01/2021 to 08/02/2021</td> </tr> <tr> <td>Year 2022: 09/02/2022 to 22/02/2022</td> </tr> </tbody> </table> <p>It is verified through the registered PDD and PPA signed by the PP with state utility that the state utility (RRVPNL) is the buyer of generated electricity and sole entity responsible for calibration of meters. During the site visit, the assessment team has physically verified the meters installed at site and found to be working satisfactorily and checked the monthly JMRs that mention the identification of meters whose data used to prepare monthly break up sheets. Accordance with the guidelines outlined under paragraph 366(a) of CDM VVS for PAs version 03.0, an error factor 0.2% had to be applied for both export & import i.e., the measured values in the delayed calibration period. However, the monthly breakup sheets issued by the state utility only provides the calculated value of electricity exported and imported by the project activity. Hence the error factor – 0.2% is applied for export values and +0.2% for import values. The approach followed by the PP was found to be conservative and appropriate, hence accepted. The meters are duly approved, installed, tested, sealed and in the custody of the state utility. The PP has no control over the same. CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006/29/ which is considered as national standard mentions that "All interface meters shall be tested at least once in five years." Hence, the calibration frequency of once in a year, mentioned in the registered PDD for the meters is appropriate.</p>	Meter location	Calibration period delayed	Remark	PS-8 Sub - station (132 kV, Electricity Board substation)	Year 2021: 01/01/2021 to 08/02/2021	It is to be noted that the billing cycle starts from first day and ends on last of every month, hence the PP has applied the error factor for the entire months identified under delayed calibration period. For example, error factor is applied from 01/01/2021 to 28/02/2021 to address the calibration delay for the period from 01/01/2021 to 08/02/2021. Similar approach is followed for delayed calibration period identified in the month of Feb 2022.	Year 2022: 09/02/2022 to 22/02/2022	Salodi Sub-station (WWIL substation)	Year 2021: 01/01/2021 to 08/02/2021	Year 2022: 09/02/2022 to 22/02/2022
Meter location	Calibration period delayed	Remark									
PS-8 Sub - station (132 kV, Electricity Board substation)	Year 2021: 01/01/2021 to 08/02/2021	It is to be noted that the billing cycle starts from first day and ends on last of every month, hence the PP has applied the error factor for the entire months identified under delayed calibration period. For example, error factor is applied from 01/01/2021 to 28/02/2021 to address the calibration delay for the period from 01/01/2021 to 08/02/2021. Similar approach is followed for delayed calibration period identified in the month of Feb 2022.									
	Year 2022: 09/02/2022 to 22/02/2022										
Salodi Sub-station (WWIL substation)	Year 2021: 01/01/2021 to 08/02/2021										
	Year 2022: 09/02/2022 to 22/02/2022										
Findings	CAR #3 was raised and resolved.										
Conclusion	The assessment team has confirmed that the calibration is conducted at the frequency following the relevant industry standard as specified by the methodology /08/ and the monitoring plan contained in the registered PDD										

	<p>/1.1/. Therefore, the requirements of paragraph 370 of CDM-VVS for PAs, version 03.0 have been met.</p> <p>The assessment team also confirm that the error has been applied:</p> <p>(a) In a conservative manner, such that the adjusted measured values of the delayed calibration shall result in fewer claimed GHG emission reductions or net anthropogenic GHG removals.</p> <p>(b) For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.</p>
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E.8. Assessment of data and calculation of SDG impacts

E.8.1. Calculation and assessment of SDG outcomes

<p>Means of verification</p>	<p>The verification team verified that:</p> <ul style="list-style-type: none"> a) A complete set of data for the monitoring period was available for the monitoring period and the verification of each monitoring parameter is elaborated under Section E.6.2 of this report. The complete monitoring data is also presented in the corresponding ER sheet /08/ of final Monitoring Report /06/. b) The information provided in the monitoring report was crosschecked with other sources, wherever appropriate and available, and such information is also included under Section E.6.2 of this report. c) The calculations of baseline emissions as presented in the corresponding ER sheet of final Monitoring Report were checked and found to be consistent with the formulae and methods described in the registered monitoring plan and the applied methodology. d) All assumptions used in the emission calculations were found appropriate and therefore justified e) Appropriate emission factors and other reference values have been correctly applied. This has also been elaborated under Section E.6.1 of this report. f) No standardized baseline was prescribed in the registered PDD and therefore it has not been applied. <p>The baseline emissions are the product of net electricity exported to the grid expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor. Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors.</p> $BE_y = EG_{PJ, y} * EF_{grid, CM, y}$ <p>Where:</p> <p>BE_y = Baseline emissions in year y (tCO₂)</p> <p>EG_{PJ,y} = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh)</p> <p>EF_{grid,CM,y} = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the Tool to calculate the emission factor for an electricity system (tCO₂/MWh)</p>
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	<p>Since the project activity is the installation of a new grid connected renewable power plant the $EG_{PJ,y}$ is calculated as :</p> $EG_{PJ,y} = EG_{facility,y}$ <p>Where,</p> <p>$EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr).</p> $EG_{facility,y} = EG_{Export,y} - EG_{Import,y}$ <p>Hence baseline emissions are calculated as:</p> $BE_y = EG_{facility,y} * EF_{grid,CM,y}$ <p>As per the registered PDD, combined margin emission factor is $0.94881 tCO_2 / MWh$. Hence the baseline emissions for the project activity for the current monitoring period are as follows.</p> $BE_y = 49,748.70 * 0.94881 = 47,201 tCO_{2e}$
Findings	No finding was raised
Conclusion	<p>In line with the paragraph 374 of VVS for PAs version 03.0, the verification team confirms that:</p> <ul style="list-style-type: none"> a) The complete data was available and is duly reported; b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section E.6.2 of this report); c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals were followed; d) Appropriate emission factors and other reference values were correctly applied.

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

Means of verification	The registered PDD/1.1/ and applied monitoring methodology/08/ does not prescribe any project emissions to be considered. The onsite visit and project design also did not reveal any potential source to be considered in this regard.
Findings	No finding was raised
Conclusion	No project emissions were required to be calculated.

E.8.3. Calculation of leakage GHG emissions

Means of verification	The registered PDD/1.1/ and applied monitoring methodology/08/ does not prescribe any leakage emissions to be considered. The onsite visit and project design also did not reveal any potential source to be considered in this regard.
Findings	No finding was raised
Conclusion	No leakage emissions were required to be calculated.

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

Means of verification	As elaborated above, the entire emission reductions from the project activity were based on baseline emissions. The calculations presented in this regard in the final monitoring report and corresponding ER calculation sheet were found appropriate and complying with the provisions prescribed in the monitoring plan of
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	<p>registered PDD/1.1/ and applied methodology/08/.</p> <p>The verification team confirms that an audit trail that contains the evidence and records that validated the stated figures were checked and found acceptable.</p>
Findings	No finding was raised.
Conclusion	<p>The verification team confirms that</p> <ul style="list-style-type: none"> a) The complete data was available and is duly reported; b) As indicated above, the description with regard to cross-check of reported data is included under respective parameter (refer Section E.6.2 of this report); c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals, project emissions and leakage emissions were followed. d) Appropriate emission factors and other reference values were correctly applied. e) There is no pro-rate approach was applied in the current monitoring period as entire monitoring period falls into period that is after the end of first commitment period of Kyoto Protocol. <p>The total number of ERs achieved during the current monitoring period is 47,201 tCO₂e.</p>

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

Means of verification	As verified and evident from the final Monitoring Report /05/ and corresponding ER sheet /06/, the actual emission reductions achieved by the project activity in the current monitoring period were found lesser than (7.89% lower) the estimated quantity in the registered PDD/1.1/ for the comparable period.	
	Estimated ERs for comparable period as per registered PDD (tCO ₂ e)	Actual ERs achieved in the current monitoring period (tCO ₂ e)
	51,242	47,201
Findings	No issues identified and hence finding was not raised for this section.	
Conclusion	The actual emission reductions achieved by the project activity are lower than the estimated quantity of ERs in the registered /1.1/. Accordingly, it was accepted by the verification team.	

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

Means of verification	The actual emission reductions were less than the estimation in the registered PDD/1.1/ for an equivalent length of the monitoring period therefore no further explanation is required.
Findings	No finding was raised
Conclusion	The actual ERs are less than the estimated quantity of ERs as given in the registered PDD/1.1/, which is appropriate and accepted.

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	Based on the assessment done, the verification team can certify that the emission reductions from the GS project activity 6004 "Wind Power Project in Tinwari, Rajasthan" in India during the period 01/01/2021 to 31/07/2022 (including both days) is 47,201 tCO ₂ e.			
		First commitment period (up to 31 Dec 2012) (tCO ₂ e)	01 Jan 2013 onwards (tCO ₂ e)	01 Jan 2021 onwards (tCO ₂ e)
	Emission Reductions	Nil	Nil	47,201
Findings	No finding was raised			
Conclusion	Actual GHG emission reductions achieved during period starting from 1 st January 2021 onwards was verified as 47,201 tCO ₂ e.			

Section F. Internal quality control

A draft verification report prepared by assessment team is reviewed by an independent Technical Review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable GS4GG and CDM principles and requirements.

The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the verification team. The report approved by Quality Manager is endorsed by Managing Director, who is overall responsible to ensure quality, before final release. The further details of applicable procedures and responsibilities about Earthood Quality Management System (QMS) are available on its website (www.earthood.in).

Section G. verification opinion

Earthood Services Private Limited (ESPL), contracted by Wind World (India) Limited, has performed the independent verification of the emission reductions for the GS Project 6004 "Wind Power Project in Tinwari, Rajasthan" in "India" for the monitoring period 01/01/2021 to 31/07/2022 as reported in the Monitoring Report, Version 1.4 dated 03/11/2023. The Wind World (India) Limited is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. Earthood commenced the verification against the baseline and monitoring methodology ACM0002, version 17.0 the monitoring plan contained in the PDD Version 5.0 dated 23/07/2012, GS PDD Version 1.1 dated 03/11/2023, approved transition annex and Monitoring Report Version 1.4 dated 03/11/2023.

ESPL confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. This verification report has been prepared using the latest available template specified by UNFCCC and complies with the instructions to follow as per para 22 and 23 of CDM VVS for PAs Version 03.0. The verification activities were conducted in accordance with ESPL's CDM Quality Manual System as per the steps indicated under Section A of this report.

As a result, it is confirmed that the emission reductions from the GS PA (6004) "Wind Power Project in Tinwari, Rajasthan" are correctly reported in the Monitoring Report (final) Version 1.4 dated 03/11/2023 and corresponding ER sheet for the monitoring period 01/01/2021 to 31/07/2022 (including both days) amounted as 47,201 tCO2e. Therefore, this will be submitted as part of request for issuance as per CDM PCP for PAs Version 03.0 and GS4GG principles and requirements v 1.2.

Section H. Certification statement

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

In our opinion the GHG emissions reductions reported for the project activity are fairly stated in the Monitoring Report (final) Version 1.4 dated 03/11/2023. ESPL, based on outcome of verification activities, certifies in writing that, during the monitoring period 01/01/2021 to 31/07/2022 (including both days), the registered GS PA Wind Power Project in Tinwari, Rajasthan in the registered GS PA achieved the verified amount of 47,201 tCO2e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

Verified and certified SDG outcomes as per commitment period:

SDG	Amount Achieved			
	Vintage		Total	Units/ product
	01/01/2021 to 31/12/2021	01/01/2022 to 31/07/2022		
SDG 7 (Affordable and Clean Energy)	29,839.304	19,909.394	49,748.698	MWh
SDG 8 (Decent Work and Economic Growth)	1 training & 14 employee	1 training & 8 employee	2 Training and 14 employees	Training and numbers
SDG 13 (Climate action)	28,311	18,890	47,201	tCO2e

Appendix-1. Abbreviations

Abbreviations	Full texts
ABT	Availability Based Tariff
DISCOM	Distribution Company
EIL	Enercon (India) Limited
EPC	Engineering and Procurement Contractor
ESIA	Environmental and Social Impact Assessment
GOI	Government of India
GS4GG	Gold Standard for Global Goals
GS	Gold Standard
JMR	Joint Meter Reading
JVVNL	Jaipur Vidyut Vitran Nigam Limited
LCS	Local Controller System
MGR	Monthly Generation Reports
NEWNE	Northeast West North-East
O&M	Operation and Maintenance
PPA	Power Purchase Agreement
QA/QC	Quality Assurance/Quality Control
RERC	Rajasthan Electricity Regulatory Commission
RMP	Revision in Monitoring Plan
RPTCL	Rajasthan Power Transport Company Limited
RRVNL	Rajasthan Rajya Vidyut Prasaran Nigam Limited
SFR	Stakeholder Feedback Round
WTG	Wind Turbine Generator
WWIL	Wind World India Limited

Appendix 2. Competence of team member and technical reviewers

Competence Statement			
Name	Ravi Kant Soni		
Country	India		
Education	B. Tech. (Mechanical Engineering) M. Tech. (Energy Management)		
Experience	8 Years +		
Field	Energy and Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS-I.D., AMS-I.C., ACM0002		
Local expert	YES (India)		
Financial Expert	No		
Technical Reviewer	No		
TA Expert	YES (TA 1.2)		
Reviewed by	Shreya Garg	Date	04/06/2019
Approved by	Anshika Gupta	Date	04/06/2019

Competence Statement			
Name	Shifali Guleria		
Education	M.Sc. (Environmental Studies and Resource Management), TERI University		
Experience	3+ year		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMS-I.A., AMS-II.G.,AMS-II.E., AMS-III.A.V., AMS-I.D, ACM0002)		
Local expert	YES		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (1.2, 3.1)		
Reviewed by	Deepika Mahala	Date	16/02/2022

Approved by	Ashok Gautam	Date	18/02/2022
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Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	9 Years +		
Field	Climate Change		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	AMS.I.A., AMS.I.C., AMS.I.D., AMS.I.F., AMS.II.D., AMS.II.G., AMS.II.J., AMS.III.AV., AMS.III.BL, ACM0002, ACM0012		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert	YES (TA 1.2, TA 3.1)		
Reviewed by	Shifali Guleria	Date	26/04/2022
Approved by	Deepika Mahala	Date	26/04/2022

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	PP	GS Passport	Version 03, dated 11/04/2018	Other
		GS PDD	Version 1.1, dated 03/11/2023	
1.1	PP	CDM registered PDD	Ver.5.0, dated 23/07/2012	Other
1.2	PP	Approved transition annex (GS CER to GS VER)	-	PP
2	Applus+Certification	GS Validation Report,	Version 04, dated 24/04/2018	Other
3	PP	ER spread sheet (initial)	Version 1.0 dated 05/09/2022	PP
4	PP	Monitoring Report	Version 1.0 dated 05/09/2022	PP
5	PP	Monitoring Report (final)	Version 1.4 dated 03/11/2023	PP
6	PP	ER spread sheet (final)	Version 1.1, Dated 03/10/2022	PP
7	ESPL	On site verification activities including physical inspection and interviews of the personnel	Dated 21/09/2022	Other
8	UNFCCC	Methodology ACM0002	Version 17.0	Other
9	PP	HR records for various parameters viz. total number of employees, type of employment, quality of employment etc.	-	PP
10	State utility	Commissioning certificates for all the WTGs	-	Other
11	PP	Evidence for CSR activities	-	PP
12	PP	Training records (Attendance and photographs)	-	PP
13	UNFCCC	UNFCCC project web page https://cdm.unfccc.int/Projects/DB/DNV-CUK1335949463.75/view	-	Other
14	GS	GS project webpage https://registry.goldstandard.org/projects/details/1047	-	Other
15	PP	Records of Safety system and procedures implemented on site	-	PP

16	PP	Records of health care and first aid facilities for employees available on/off site	-	PP
17	PP	Policy, procedure, and records for occupational safety	-	PP
18	PP	Copy of grievance register	-	PP
19	RRVPNL	Monthly breakup sheets issued by state utility	-	PP
20	WWIL	Monthly Invoices raised by the PP to state utility	-	PP
21	WWIL	Monthly Generation Reports issued by EPC contractor	-	PP
22	RRVPNL	Monthly JMRs issued by state utility	-	PP
23	Darsh Calibration Pvt Ltd.	Calibration certificates for all the meters	-	PP
24	GS registry	GOLD STANDARD FOR THE GLOBAL GOALS - Principles & Requirements,	Version 1.2, dated Oct 2019	Others
25	GS registry	Renewable Energy Activity Requirements	Version 1.2, dated Oct 2019	Others
26	UNFCCC	Clean Development Mechanism Validation and Verification Standard for Project Activity (CDM-VVS for PA), version 03.0 as per EB 111, Annex 2	Dated 09/11/2021	Others
27	UNFCCC	CDM Project Standard for Project Activity (CDM-PS for PA), version 03.0 as per EB 111, Annex 1	Dated 09/11/2021	Others
28	CEA	Central Electricity Authority (Installation and Operation of Meters) Regulations - Notified on 17/03/2006 No.502/70/CEA/DP&D - Amendments Notified on 26/06/2010 No.502/6/2009/DP&D/D-I (http://www.cea.nic.in/reports/regulation/meter_reg.pdf)	17/03/2006	Other: CEA
29	CEA	CO ₂ Baseline Database for Indian Power Sector	Ver.06	Others
30	RRVPNL	Power Purchase Agreement between Jaipur Vidyut Vitran Nigam Limited and Wind World (India) Limited	Dated 09/10/2011	PP
31	WWIL	Undertaking from WTG supplier regarding calibration of LCS meter	-	PP

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

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

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

Table 2. CL from this verification

CL ID	01	Section no.	A	Date :25/09/2022
Description of CL				
<ol style="list-style-type: none"> 1. Number of employees as mentioned under table-1 in the MR is not consistent with the same as reported under section E.5. 2. Number of beneficiaries for CSR activities conducted during the current monitoring period as mentioned in the table-1 are not consistent with the same as reported under section E.5 of the MR. 3. Please clarify why date of submission for last annual report is not mentioned in the MR. 				
Project participant response				Date :03/10/2022
<ol style="list-style-type: none"> 1. The details of training and number of trainings employee wise is mentioned in the MR under section E.5 2. Changed the number of beneficiaries accordingly as per the details provided in the revised MR 3. Annual report will be submitted to GS 				
Documentation provided by project participant				
MR, 2021- Training				
DOE assessment				Date: 10/11/2022
<ol style="list-style-type: none"> 1. The PD has corrected the number of employees as mentioned under table-1 in the MR, found to be consistent with the records submitted. 2. Information regarding the number of beneficiaries for CSR activities conducted during the current monitoring period is corrected in the table-1 and found consistent with the same as reported under section E.5 of the MR. 3. The PP has mentioned the date of last annual report in the MR, found to be appropriate. <p>CL #1 is closed.</p>				

Table 3. CAR from this verification CAR ID	01	Section no.	E.6.3	Date : 25/09/2022
Description of CAR				

SDG 3:

Please submit the evidence for the CSR programs organized during the current monitoring period. Also clarify how the number beneficiaries are determined.

SDG 8.5.2 Unemployment rate, by sex, age, and persons with disabilities

- Please clarify how many new jobs were created during the current monitoring period.
- Name of employer as mentioned in the employee’s attendance records is different from PD.
- As per the registered monitoring plan, at least one training should be provided, however 2 trainings were provided in 2022 during the current monitoring period 01/01/2021-31/07/2022. Kindly clarify how the monitoring plan is followed in this regard.
- Number employees in the current monitoring period are lesser as compared to the previous monitoring period. Kindly clarify the reason.
- Please provide the supporting evidence to confirm whether the salary level of jobs is comparable with the local standard.

SDG 7.2.1:

Table E.4 MR: Please clarify how it is appropriate to compare the annual estimated value of EGy with the actual value achieved for current monitoring period.

Table E.5.1 MR:

Number of trainings provided in the monitoring period is not consistent with table -1 of the MR.

Project participant response	Date :03/10/2022
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SDG 3: Details have been provided to the DOE, and accordingly updated in the revised MR

SDG 8.5.2:

- 9 new jobs have been created in current monitoring period; the same information have been provided in section D.2 of MR.
- The evidence with level of jobs, employee name, employee code, position, educational qualification has been provided to DOE.
- The evidence of 2021 and 2022 trainings both have been submitted to the DOE

SDG 7.2.1:

The estimated value for current monitoring period has been mentioned in section E.4 & E.5 of revised MR.

Table E.5.1 MR:

Number of trainings have been corrected in section E.5.1 of revised MR.

Documentation provided by project participant
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Trainings 2021 and 2022

DOE assessment	Date: 10/11/2022
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The PP has submitted the evidence for CSR programs organized during the current monitoring period, found to be appropriate.

There are 9 persons employed for the project activity, the PP has submitted the employment records with correct employer name, found to be appropriate.

Training records for the year 2021 and 2022 are provided by the PP and found to be satisfactory.

The PD has corrected the value of estimated ERs under Table E.4 MR, found to be appropriate.

The PD has corrected the number of trainings provided in the monitoring period under the table E.5.1 and found consistent with table -1 of the MR.

CAR #1 is closed.

CAR ID	02	Section no.	E.6	Date 25/09/2022
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Description of CAR

Grievance Mechanism: Please clarify how the grievance mechanism is implemented at project site during the current monitoring period. Also submit the evidence regarding the objections/suggestions recorded as a part of grievance mechanism.	
Project participant response	Date :03/10/2022
<i>PP has place grievance register at pooling substation, although No grievances received during the monitoring period. Also, no grievances received during the monitoring period through telephone or email as well.</i>	
Documentation provided by project participant	
<i>Grievance Register</i>	
DOE assessment	Date: 10/11/2022
The PP has submitted the copy of grievance register and found to be appropriate. CAR #2 is closed.	

CAR ID	03	Section no.	E.7	Date	25/09/2022
Description of CAR					
As per the details provided under section C of the MR, meters are installed at PS-8 and Salodi substation, however under section D.2 the meter location is mentioned at Bhu substation.					
Meters installed at PS-8 & Salodi substation were calibrated on 23/02/2021 (valid till 22/02/2022), however the current monitoring period ends on 31/07/2022. Kindly clarify how the delayed calibration period as mentioned in the MR is appropriate. Also clarify how it is ensured that meters were working satisfactorily during the monitoring period. Please clarify why the delayed calibration results and period is not mentioned in the MR.					
Project participant response				Date :03/10/2022	
<i>Corrected the name of substation in section D.2 in the revised MR Latest calibration details have been submitted to the DOE, along with error factor applied in the ER sheet Delayed calibration period is mentioned in the revised MR section C under Meter Test Checking Details</i>					
Documentation provided by project participant					
DOE assessment				Date: 10/11/2022	
The PP has corrected the name of the substation under section D.2 of the MR, found to be appropriate. The PD has mentioned the latest calibration details of meters in the MR, the same is verified the calibration certificates and found to be consistent. The PP has mentioned the delayed calibration period in the revised MR, found to be satisfactory. CAR #3 is closed.					

Table 4. FAR from this verification

FAR ID	00	Section No.	-	Date	: DD/MM/YYYY
Description of FAR					
NA					
Project participant response				Date : DD/MM/YYYY	
-					
Documentation provided by project participant					
-					
VVB assessment				Date: DD/MM/YYYY	
-					