GS4GG Verification (Performance Certification) Report

Project Title
Renewable Energy Wind Power Project in Rajasthan

For
Vish Wind Infrastrukture LLP

Report No- GS.VER.22.44

Revision No-03

Date: 12/03/2023

SECTION A. Executive summary

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

Project title	Renewable Energy Wind Power Project in Rajasthan
ESPL ref.No.	GS.VER.22.44
GS ID	GS5007
UNFCCC registration number	5090
Date of GS registration	28/11/2016
Monitoring period	01/04/2020-27/02/2022 (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 Emission Reductions
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 PDD, passport 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 Vish Wind Infrastrukture LLP 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

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Team Leader and Local Expert	EI	Soni	Ravi Kant	Central office	Y	Y	Y	Y
2.	Verifier	IR	Guleria	Shifali	Central office	Y	N	N	Y
3.	Meth Expert	EI	Soni	Ravi Kant	Central office	Y	Y	Y	Y
4.	Technical Expert	EI	Soni	Ravi Kant	Central office	Y	Y	Y	Y
5.	Financial/ Other Expert	EI/IR	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6.	Trainee	EI/IR	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer and TA 1.2 Expert	IR	Garg	Shreya	Central office
2.	Approver	IR	Singh	Kaviraj	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.	Omissions and misstatements in data transfer from handwritten data in the JMR to ER calculation sheet.	Low	Ineffective quality control of data transfer due to unclear QA/QC procedure.	Quality procedure followed at site to be checked. It is to be demonstrated by the PP that how to transfer data and how this can be crosschecked. Relevant site personnel have been interviewed to confirm whether procedure is actually conducted.
2.	Missing data due to failure of measurement equipment	Low	The monitoring plan defines emergency procedures in	It is to be checked if related main meters are installed as

			case malfunctioning or failure of meter. Further, check meters are also installed onsite.	per monitoring plan. Relevant site personnel have been Interviewed to confirm whether the emergency procedure is known to them. To be checked if the equipment is malfunctioning and the accuracy and reliability of data for the concerned period cannot be ensured, the relevant emission reductions have been claimed or not.

C.2. Consideration of materiality in conducting the verification

The project activity is large scale project and applicable threshold for materiality in accordance with CDM VVS for PAs Version 03.0 paragraph 326(c) is 2%. All the monthly reported figures for parameter $EG_{facility,y}$ was verified with respective monthly breakup sheets and were found to be consistent. Therefore, it can be stated that the verified value is free from any potential error / omission / misstatement. The project activity, being a wind energy project, has assumed the project emission and leakages to be zero which is in line to the applied methodology and is also reasonable in the opinion of assessment team. Therefore, there are no additional factors which might lead to introduction of error in emission reduction estimation.

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 also conducts independent background investigations. Earthood conducted a desk review as under;

a) A review of the data and information presented to verify their completeness
b) A review of the monitoring plan (as described in PDD and approved transition annex), 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 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 emission reductions

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

D.2. On-site inspection

Duration of on-site inspection: 21/09/2022 and 22/09/2022				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	An assessment of the implementation of sustainability monitoring plan and operation of the registered project activity as per the approved transition annex; A review of information flows for generating, aggregating and reporting the monitoring parameters; Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the approved transition annex ; A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources; An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters. Interview and feedback of the relevant stakeholders about the PA.	Jodhpur/Jaisalmer	21/09/2022 and 22/09/2022	Ravi Kant Soni

D.3. Interviews with project participants

No.	**Interviewee**			**Date**	**Subject**
	Last name	**First name**	**Affiliation**		
1.	Tiwari	Ajeet Kumar	VWLLP	21/09/2022 and 22/09/2022	Monitoring of SDG parameters
2.	Manda	Gopal	WWIL	22/09/2022	Monitoring of SDG parameters
3.	Chouhan	Hemant	WWIL	21/09/2022 and 22/09/2022	Monitoring of SDG parameters
4.	Kumar	Jeetendra	WWIL	22/09/2022	Monitoring of SDG parameters

D.4. 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 and 22/09/2022. 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.	Mrs. Deepika Singh	Local villager	Positive
2.	Rajaram	Local villager	Positive
3.	Bhai Khan	Local villager	Positive
4.	Nakhatl Singh	Local villager	Positive
5.	Ashok Kumar	Local villager	Positive
6.	Kishan Singh	Local villager	Positive
7.	Gajendra Singh	Local villager	Positive
8.	Dilip Singh	Local villager	Positive

D.5. Sampling approach

>> No sampling approach has been applied by the verification team as all the monthly reported figures in the MR/05/ and the ER sheet/06/ were checked from the actual records.

D.6. Clarification requests, corrective action requests and forward action requests 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 with the GS registered PDD/Passport/approved transition annex	-	-	-
Post-registration changes	-	-	-
Compliance of the implementation of grievances mechanism in line with the registered GS PDD/Passport/ approved transition annex	-	CAR #2	-
Compliance of the CDM monitoring plan with the monitoring methodology including applicable tool and standardized baseline	-	-	-
Compliance of monitoring activities with the CDM registered monitoring plan	CL #1	-	-
Compliance of SDG outcomes monitoring activities with the approved GS PDD/Transition annex	-	CAR #1	-
Compliance with the calibration frequency requirements for measuring instruments	-	-	-
Assessment of data and calculation of emission reductions or net removals		-	-
Others (please specify)	-	-	-
Total	01	02	-

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 verification

>> This is fourth verification of the project activity under GS and no FAR(s) from validation /02 / or previous verification /19/ that need to be closed during this verification.

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

Means of verification	The project activity consists of 37 WTGs (0.8 MW capacity each), making the total installed capacity to be 29.6 MW in the Jodhpur and Jaisalmer district in Rajasthan, India. The WTGs are of Wind World (E-53) make. The first WTG of the project activity was commissioned on 23/09/2010 and last one on 26/01/2011, which was verified vide commissioning certificates/10/ and corroborated by monthly breakup sheets/21/ prepared by O&M contractor and approved by state utility, indicating the start date of commercial operation. The WTGs belong to project activity are installed at Jaisalmer and Jodhpur site and connected to various clusters and each cluster have exclusive dedicated metering arrangement at 33kV at project site. The geo coordinates of the WTGs forming part of the project activity, which were not visited physically were verified using Google Map (https://www.google.co.in/maps) and were found to be consistent with the same reported in the revised approved PDD. 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 220 kV Wind World sub-station (Bhu sub-station, Jaisalmer) and at 132 kV Wind World sub-station (Salodi sub-station, Jodhpur) through 33 kV bus, from where the electricity supplied to DISCOM sub-station (Akal,Jaisalmer) and (PS-8 Narwa,Jodhpur) respectively. At both the substations the electricity generated by all the WTGs (project and non-project) is being fed to the NEWNE grid through two separate lines. Each line having one set of meters (main and check meter) and monthly reading is taken by the RRVPNL representatives in the presence of WWIL officials in the form of JMR. 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. Hence, 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 revised approved PDD/1.1/. 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 revised approved PDD /1.1/ and MR. The project implementation, with reference to GS passport and approved transition annex, was checked on site to confirm the following: • 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.
Findings	No issues identified and hence finding was not raised for this section
Conclusion	• In view of the information's verified during the site visit, the verification team is able to 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 revised approved PDD. • No information regarding data and variables was identified that may surpass the estimated quantity of ERs in the revised approved PDD. • The emission reductions achieved during the current monitoring period are (72,048 tCO_2e), that is within the estimated quantity (93,681 tCO_2e) in the revised approved PDD for the comparable period.

E.4. Post-registration changes

E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents[1]

>> There are no temporary deviations from registered monitoring plan or applied methodology. It was verified and confirmed from the revised approved PDD/1.1/; the applied methodology/08/ and the on-site verification.

E.4.2. Corrections

>> There are no corrections during the current monitoring period.

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

>> There is no change to the start date of the crediting period. It was verified and confirmed from the UNFCCC project webpage/13/.

E.4.4. Inclusion of a monitoring plan

>> Not applicable

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

>> There are no permanent changes from the registered monitoring plan/1.1/ or applied methodology/08/ during the current monitoring period.

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 monitoring plan with the monitoring methodology 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 in compliance with the registered passport and approved transition annex/1.2/.
Findings	No issues identified in section hence finding was not raised.

[1] Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

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 $_{grid,OM,y}$ tCO_2e/MWh)

Means of verification	The value of this parameter is considered as 1.0050. This was checked with the revised approved PDD /1.1/ and CO2 Baseline Database for Indian Power Sector", version 05 published by the Central Electricity Authority, Ministry of Power, Government of India /8.1/.
Findings	No finding was raised
Conclusion	The value in the monitoring report /05/ and corresponding emission reduction calculations spreadsheet /06/ are consistent with the approved PDD (page 25). 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 0.6752. This was checked with the revised approved PDD /1.1/ and CO2 Baseline Database for Indian Power Sector", version 05 published by the Central Electricity Authority, Ministry of Power, Government of India /8.1/.
Findings	No finding was raised
Conclusion	The value in the monitoring report /05/ and corresponding emission reduction calculations spreadsheet /06/ are consistent with the approved PDD/1.1/ (page 26). 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 0.9225. This was checked with the revised approved PDD /1.1/ and CO2 Baseline Database for Indian Power Sector", version 05 published by the Central Electricity Authority, Ministry of Power, Government of India/8.1/.
Findings	No finding was raised.
Conclusion	The value in the monitoring report /05/ and corresponding emission reduction calculations spreadsheet /06/ are consistent with the approved PDD/1.1/ (page 26). 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**	
	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 / No)	Yes. In line with the approved monitoring plan, this parameter is recorded on monthly basis in the breakup sheets issued by state utility.
	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 taken by the representatives of DISCOM (RRVPNL) in the presence of WWIL officials in the form of JMRs. 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). 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. Value of this parameter for the current monitoring period is 78,112,12 MWh.
	If applicable, has the reported data been cross-checked with other available data?	Monthly reported values of $EG_{facility,y}$ for the current monitoring period were further cross-checked with the monthly invoices raised by the PP /22/ 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 (DISCOM), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.
Findings	No issues identified and hence finding was not raised for this section	
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.6.3.2: 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**	
	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	The monitoring of parameter has been implemented in accordance with the registered monitoring plan.

	monitoring methodology? (Yes / No)	
	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 taken by the representatives of DISCOM in the presence of WWIL officials in the form of JMRs. 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. 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/21/ issued by state utility and found to be consistent. Value of this parameter for the current monitoring period is 78,213.48 MWh.
	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 /22/ 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 (RRVPNL)), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.
Findings	No issues identified and hence finding was not raised for this section	
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.6.3.3: 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**	
	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.
	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 taken by the representatives of DISCOM in the presence of WWIL officials in the form of JMRs. 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. 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/21/ issued by state utility and found to be consistent. Value of this parameter for the current monitoring period is 101.36 MWh.
	If applicable, has the reported data been cross-checked with other available data?	Monthly reported values of $EG_{Import,y}$ for the current monitoring period were further cross-checked with the monthly invoices raised by the PP /22/ 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 (RRVPNL)), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.
Findings	No issues identified and hence finding was not raised for this section	
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.6.3.4: Summation of net electricity generation (Gross Export-Gross Import) by all the WEGs of project activity (j number of WEGs), as measured at the controller (LCS meter) at project site. Each WEG has exclusive LCS meter that records net electricity generation (Gross Export-Gross Import) from the WEG. j is number of WEGs of project activity connected to main meter (JMR/billing meter) at DISCOM substation and backup meter at WWIL substation.

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

Means of verification	**Criteria/Requirements**	
	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/23/.
	How were the values in the monitoring report verified?	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. Monthly values are reported in the ER calculation sheet. The monthly values were verified from the monthly generation reports/23/ issued by state utility and found to be consistent. Value of this parameter for the current monitoring period is 81,179.43 MWh.
	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 (RRVPNL), and the WWIL (O&M Contractor), implemented the adequate QA/QC procedures.
Findings	No issues identified and hence finding was not raised for this section	
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.6.3.5: Quality of Employment

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

Means of verification	**Criteria/Requirements**	

<table>
<tr><td></td><td>
<table>
<tr><td>Measuring /Reading /Recording frequency</td><td>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/.</td></tr>
<tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>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/.</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>The following training programs/12/ to enhance the safety awareness, operational skills and occupational health management have been organized during the current monitoring period.
<table>
<tr><td>Training Objective</td><td>Date</td></tr>
<tr><td>Electrical Safety & 5 Safety Rule</td><td>27/07/2020</td></tr>
<tr><td>Electrical Safety & LOTO Awareness</td><td>09/11/2020</td></tr>
<tr><td>Electrical Safety & LOTO Training</td><td>21/01/2021</td></tr>
<tr><td>Incident Management, HIRA & PPE Training</td><td>29/06/2021</td></tr>
<tr><td>First Aid, Fire & Electrical Safety</td><td>24/08/2021</td></tr>
</table></td></tr>
<tr><td>If applicable, has the reported data been cross-checked with other available data?</td><td>Yes, the reported data has been cross checked with thequantitative information about the quality of employment which includes the records of HR, training, health care facilities etc. are maintained /9,12/.</td></tr>
<tr><td>Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>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.</td></tr>
</table>
</td></tr>
<tr><td>Findings</td><td>CAR #1 was raised and resolved.</td></tr>
<tr><td>Conclusion</td><td>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.</td></tr>
</table>

E.6.3.6: 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, new born 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	
	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 the CSR activity initiatives, referring to the project, undertaken by the project proponent. This parameter is monitored on annual basis.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	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/.
	How were the values in the monitoring report verified?	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. 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. Also during the COVID-19 pandamic ,ration kits were distributed to the people in 4 villages of Jaisalmer district. 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.
	If applicable, has the reported data been cross-checked with other available data?	The parameter was verified using documented evidence/11/ • 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,
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	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.
Findings	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.6.3.7: 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**	
	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 10 which include technical VWLLP 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 of 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	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. Implementation of sampling plan

Means of verification	Not applicable
Findings	Not applicable
Conclusion	Not applicable

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

<table>
<tr><td>Means of verification</td><td>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:
<table>
<tr><th>Questions asked?</th><th>Stakeholder comment/response</th><th>Name of stakeholder</th></tr>
<tr><td>Do you have any problem due to installation of project?</td><td>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.</td><td>Rajaram</td></tr>
<tr><td>Are you aware of the grievance mechanism and complaint procedure?</td><td>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.</td><td>Deepika Singh
Kishan Singh</td></tr>
<tr><td>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</td><td>Yes, we are aware of the same; all the information is available in the complaint register.</td><td>Ashok Kumar</td></tr>
<tr><td>Employment’s opportunities created due implementation of project activity?</td><td>Yes, many job opportunities are created for local villagers.</td><td>Nakhat Singh</td></tr>
</table></td></tr>
<tr><td>Findings</td><td>CAR #2 was raised and resolved.</td></tr>
<tr><td>Conclusion</td><td>Based on the complaint register verified and interviews of local villagers during the site visit, the verification team able to conclude that:
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.</td></tr>
</table>

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

Means of verification	As per the monitoring plan in the approved PDD/1.1/ the meters are to be tested and calibrated once in a year. The calibration frequency has not been followed for the meters installed at Jaisalmer and Jodhpur site in the current monitoring period. The latest calibration reports of meters installed at Jaisalmer and Jodhpur 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/06/ 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.

Jaisalmer Site:

Meter Location	Meter Sr.No	Date of calibration	Is there any delay in calibration?
Akal Sub - station (220 kV,Electrcity Board substation)	Main meter 15624843	20/01/2020 and 15/03/2021	Y
	Check meter: 15624844	20/01/2020 and 15/03/2021	Y
Bhu Sub-station (WWIL substation)	Backup meter: 15197055	20/01/2020 and 15/03/2021	N

Jodhpur Site:

Meter Location	Meter Sr.No	Date of calibration	Is there any delay in calibration?
PS-8 Sub - station (132 kV,Electrcity Board substation)	Main meter: RJB 00354	14/08/2019, 09/02/2021 23/07/2022	Y
	Check meter: RJB 00356	14/08/2019, 09/02/2021 23/07/2022	Y
Salodi Sub-station (WWIL substation)	Backup Main meter: RJB 00358	14/08/2019 09/02/2021	Y
	Backup Check meter: RJB 00357	14/08/2019 09/02/2021	Y

The above meter details have been verified through the following means:

i. Physical inspection of the meters during the site visit
ii. Interviewing the staff at the sub-station
iii. The SCADA of the O&M service provider located at the site
iv. Calibration certificates

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 revised approved PDD/1.1/.

Assessment of delay in calibration of billing meters:

Jaisalmer Site:

It is verified from calibration certificates, calibration of meter (earliest) was done on 20/01/2020 (next calibration was due on 20/01/2021) and subsequent calibration was done on 15/03/2021. Hence calibration of meters considered to be delayed for the period 20/01/2021 to 14/03/2021, since the billing cycle starts from 1st day of every month to the last day of the month, hence the PP has applied the error factor to related parameters for entire month of Jan 2021 to March 2021.

The approach followed by the PP is found to be conservative and in line para 366(a) of CDM VVS for PAs version 03.0, hence accepted.

The verification team has checked the latest calibration certificates of energy meters and confirmed that meter was working satisfactorily and error within the permissible limits.

Jodhpur Site:

Latest calibration of billing meters was done on 14/08/2019(next calibration was due on

	14/09/2020) and subsequent calibration was conducted on 09/02/2021. It is noted that calibration is not conducted as per the schedule, hence there is a delay in calibration for the periods from 14/08/2020 to 08/02/2021 and 09/02/2022 to 27/02/2022 is considered. Following conservative approach, the PP has applied the error factor to the concerned parameters for entire months of delayed calibration period. It is verified through the revised approved 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 17/03/2006/27/ 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 revised approved PDD for the meters is appropriate.
Findings	No finding was raised
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 revised approved PDD /1.1/. Therefore, the requirements of paragraph 370 of CDM-VVS for PAs, version 03.0 have been met. The assessment team also confirm that the error has been applied: (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; (b) For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration.

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

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

Means of verification	The verification team verified that 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 revised approved PDD and therefore it has not been applied. 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. $BE_y = EG_{PJ,y} * EF_{grid,CM,y}$ Where: BE_y = Baseline emissions in year y (tCO2) $EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh) $EF_{grid,CM,y}$ = 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) Since the project activity is the installation of a new grid connected renewable power plant the $EG_{PJ,y}$ is calculated as : $EG_{PJ,y} = EG_{facility,y}$ Where, $EG_{facility,y}$= Quantity of net electricity generation supplied by the project plant/unit to the grid in year *y* (MWh/yr). $EG_{facility,y} = EG_{Export,y} – EG_{Import,y}$ Hence baseline emissions are calculated as: $BEy = EG_{facility,y} * EF_{grid,CM,y}$ As per the revised approved PDD, combined margin emission factor is 0.9225 tCO_2 /MWh. Hence the baseline emissions for the project activity for the current monitoring period are as follows. $BEy = 78,112.12 * 0.9225 = 72,048\ tCO_2e$
Findings	No finding was raised
Conclusion	In line with the paragraph 374 of VVS for PAs version 03.0, the verification team confirms that: 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 GHG removals by sinks

Means of verification	The revised approved 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 revised approved 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 revised approved PDD/1.1/ and applied methodology. The verification team confirms that an audit trail that contains the evidence and records that validated the stated figures were checked and found acceptable.
Findings	No finding was raised
Conclusion	The verification team confirms that 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. The total number of ERs achieved during the current monitoring period is 72,048tCO_2e.

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic 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 (23.1% lower) the estimated quantity in the revised approved PDD/1.1/ for the comparable period. Estimated ERs for comparable period as per registered PDD (tCO2e): 93,681 Actual ERs achieved in the current monitoring period (tCO2e): 72,048
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 revised approved PDD /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 revised approved 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 revised approved 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 5007 “Renewable energy wind power project in Rajasthan” in India during the period 01/04/202001/04/2020 to 27/02/202227/02/2022 (including both days) is 72,048 tCO_2e.

	<table><tr><td></td><td>First commitment period (up to 31 Dec 2012) (tCO2e)</td><td>01 Jan 2013 onwards (tCO2e)</td></tr><tr><td>Emission Reductions</td><td>NA</td><td>72,048</td></tr></table>
Findings	No finding was raised
Conclusion	Actual GHG emission reductions achieved during period starting from 1st January 2013 onwards was verified as 72,048 tCO_2e.

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 Gold Standard and CDM 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 validation 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 Vish Wind Infrastrukture LLP, has performed the independent verification of the emission reductions for the GS Project 5007 "Renewable Energy Wind Power Project in Rajasthan" in "India" for the monitoring period 01/04/2020 to 27/02/2022 as reported in the Monitoring Report, Version 1.3 dated 02/03/2023. The Vish Wind Infrastrukture LLP 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 12.3.0 the monitoring plan contained in the CDM PDD Version 11 dated 08/07/2014, GS Passport Version 03 dated 09/12/2016, approved transition annex and Monitoring Report Version 1.3 dated 02/03/2023.

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 (5007) "Renewable Energy Wind Power Project in Rajasthan" are correctly reported in the Monitoring Report (final) Version 1.3 dated 02/03/2023 and corresponding ER sheet for the monitoring period 01/04/2020 to 27/02/2022 (including both days) amounted as 72,048 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 (GS VERs) reported for the project activity are fairly stated in the Monitoring Report (final) Version 1.3 dated 02/03/2023. ESPL, based on outcome of verification activities, certifies in writing that, during the monitoring period 01/04/2020 to 27/02/2022 (including both days), the registered GS PA "Renewable Energy Wind Power Project in Rajasthan" in the registered GS PA

achieved the verified amount of 72,048 tCO2e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

The verified amount of emission reductions is stated below as per each vintage covered under the current monitoring period.

	Emission Reductions (GS VERs) in this monitoring period	
Year	**Duration**	**Emission reduction (**CO2e)
2020	01/04/2020 to 31/12/2020	27,790
2021	01/01/2021 to 27/02/2022	40,129
2022	01/01/2022 to 27/02/2022	4,129
Total	**Nil**	**72,048**

Approved by

Dr. Kaviraj Singh

Managing Director **Date: 14/03/2023**

Earthood Services Privated Limited **Place: Gurugram,Haryana**

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	North East 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
RRVPNL	Rajasthan Rajya Vidyut Prasaran Nigam Limited
SFR	Stakeholder Feedback Round
WTG	Wind Turbine Generator
WWIL	Wind World India Limited

Appendix 2. Competence of team members 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

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 14/12/2016	Other
1.1	PP	CDM registered PDD	Ver.11, dated 08/07/2014	Other
1.2	PP	Approved transition annex (GS CER to GS VER)	-	PP
2	ESPL	GS Validation Report,	Version 02, dated 29/09/2016	Other
3	PP	ER spread sheet (initial)	Version 1.0 dated 01/09/2022	PP
4	PP	Monitoring Report	Version 1.0 dated 01/09/2022	PP
5	PP	Monitoring Report (final)	Version 1.3 dated 02/03/2023	PP
6	PP	ER spread sheet (corresponding to final MR)	Version 1.0 dated 01/09/2022	PP
7	ESPL	On site verification activities including physical inspection and interviews of the personnel	Dated 21/09/2022 and 22/09/2022	Other
8	UNFCCC	Methodology ACM0002	Version 12.3.0	Other
8.1	CEA	CO2 Baseline Database for Indian Power Sector	Version 05	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	i. Photographs for ration distribution ii. Acknowledgement and feedback letters regarding installation of, RO systems, from Principals of various Government schools. iii. Local villagers' interview and on-site observation iv. Photographs relevant to activity.	-	PP
12	PP	Training records (Attendance and photographs)	-	PP
13	UNFCCC	UNFCCC project web page http://cdm.unfccc.int/Projects/DB/DNV-CUK1315481394.7/view	-	Other
14	GS	GS project webpage https://registry.goldstandard.org/projects/details/875	-	Other
15	PP	Records of Safety system and procedures	-	PP

		implemented on site		
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	VWLLP	Monthly Invoices raised by the PP to state utility	-	PP
21	VWLLP	Monthly Generation Reports issued by EPC contractor	-	PP
22	RRVPNL	Monthly JMRs issued by state utility	-	PP
23	GS registry	GOLD STANDARD FOR THE GLOBAL GOALS - Principles & Requirements,	Version 1.2, dated Oct 2019	Others
24	GS registry	Renewable Energy Activity Requirements	Version 1.2, dated Oct 2019	Others
25	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
26	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
27	CEA	Central Electricity Authority (Installation and Operation of Meters) Regulations - Notified on 17/03/2006 No.502/70/CEA/DP&D - AmendmentsNotifiedon26/06/2010No.502/6/2009/DP&D/D-I (http://www.cea.nic.in/reports/regulation/meter_reg.pdf)	17/03/2006	Other: CEA

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

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

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

Table 2. CL from this verification

CL ID	01	**Section no.**	A	**Date :25/09/2022**
Description of CL				

1. Number of employees as mentioned under table-1 in the MR is not consistent with the records submitted. 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 annal report is not mentioned in the MR.
Project participant response **Date : 01/10/2022**
1. Number of employees are corrected in revised version of MR. *2. In Section E.5 SDG 3 is not listed, it is in addition to mention monitoring parameters as per approved transition annex of the project activity, PP has taken additional initiatives to improve basic education, health & hygiene and clean drinking water facility in nearby areas. The details of these programs organized during current monitoring period is provided in section D.2 of MR.* *3.*
Documentation provided by project participant
Revised MR
DOE assessment **Date:** 25/10/2022
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. Comment is not responded. Open CL #1 is open
Project participant response **Date :**01/11/2022
Annual Report have been submitted to DOE.
Documentation provided by project participant
Annual Report
DOE assessment **Date:** 10/11/2022
The PP has mentioned the date of last annual report in the MR, found to be appropriate. CL #1 is closed.

Table 3. CAR from this verification

CAR ID	01	**Section no.**	E.6.3	**Date :** 25/09/2022
Description of CAR				
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. • Please provide the supporting evidence to confirm whether the salary level of jobs (3 categories) 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. Please clarify why the SDG 3 is not reported under the table E.4 & E.5 of the MR. 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 : 01/10/2022**

SDG 8.5.2 - *10 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 have been provided to DOE.* *SDG 7.2.1* *The estimated value for current monitoring period have been mentioned in section E.4 & E.5 of revised MR.* *SDG 3 is in addition to mentioned monitoring parameters as per approved transition annex of the project activity, PP has taken additional initiatives to improve basic education, health & hygiene and clean drinking water facility in nearby areas. The details of these programs organized during current monitoring period is provided in section D.2 of MR.* *Number of trainings have been corrected in section E.5.1 of revised MR.*
Documentation provided by project participant
Revised MR
DOE assessment **Date:** 25/10/2022
Number of employees during the current monitoring period is 10, however on 09/11/ 2020 total 19 employees were attended the training, please clarify the reason. Open Salary level of the employees is comparable with the local standard, the same is verified through the web site Rajasthan Minimum Wages July 2021 | Latest Minimum Wages in Rajasthan | Current Minimum Wages in Rajasthan (simpliance.in), 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 reported the the SDG under section D.2 of the MR, since its an additional parameter, hence 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 open
Project participant response **Date :** 01/11/2022
The training is organized by O & M contractor and it includes employees of project developer as well as non-project developer.
Documentation provided by project participant
Not applicable
DOE assessment **Date:** 10/11/2022
In the wind farm other project developers also implemented projects and their employees also attended the trainings, hence numbers of personnel as mentioned in the attendance sheets are more than the same as employed for project activity. CAR #1 is closed.

CAR ID	02	**Section no.**	E.6	**Date** 25/09/2022
Description of CAR				
Grievance Mechanism: Please clarify how the grievance mechanism is implemented at project site during the current monitoring period. Also submit the evidences regarding the objections/suggestions recorded as a part of grievance mechanism.				
Project participant response				**Date : 01/10/2022**
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.				
Documentation provided by project participant				
Revised MR				
DOE assessment				**Date:** 25/10/2022
Please submit the copy of grievance register. Open				
Project participant response				**Date :** 01/11/2022
The pictures of grievance register have been submitted to DOE				
Documentation provided by project participant				

Grievance Register	
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				
Meters installed at PS-8 & Salodi substation were calibrated on 09/02/2021 (valid till 08/02/2022), however the current monitoring period ends on 27/02/2022.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.				
Project participant response				**Date : 01/10/2022**
The latest calibration details have been mentioned in section C of revised MR, also the document pertaining to the same have been submitted to DOE.				
Documentation provided by project participant				
MR, Calibration Certificate				
DOE assessment				**Date:** 25/10/2022
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. CAR #3 is closed.				

Table 4. FAR from this verification

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