Verification (Performance Certification) Report for

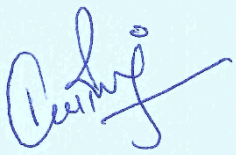
GS4GG project activities

(Gold Standard for the Global Goals)

BASIC INFORMATION	
Title of the GS4GG Project Activity	Vaayu India Wind Power Project in Jaisalmer, Rajasthan
Reference number of the Project Activity	GS5013
Version number of the verification and certification report	1.2
Completion date of the verification and certification report	28/05/2022
Monitoring period number and duration of this monitoring period	4th monitoring period (Under Gold Standard) 01/04/2020 to 30/09/2021 (inclusive of both dates)
Version number of the monitoring report to which this report applies	1.2 Dated: 28/05/2022
Crediting period of the project activity corresponding to this monitoring period	01/10/2011 to 30/09/2021
Project representative	Vaayu (India) Power Corporation Private Limited, India ACT Financial Solutions B.V., Netherlands Statkraft Markets GmbH, Switzerland First Climate Markets A.G., Germany
Host Party	India
Applied methodologies and standardized baselines	ACM0002 "Grid-connected electricity generation from renewable sources"- Version 12.1.0
Activity requirements applied	☐ Community Services Activities ☒ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A

Mandatory sectoral scopes	Sectoral Scope 1: Energy industries (renewable - / non-renewable sources
Product requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ 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 13 (Climate action)	Climate Action	87,159/year 130,858 (apportioned for 548 days of MP)	131,310	tCO_{2e}
SDG 7 (Affordable and clean energy)	Affordable and Clean Energy	94,482 /Year 141,852(apportioned for 548 days of MP)	142,346.59	MWh
SDG 8 (Decent work and economic growth)	Decent Work and Economic Growth	1 training 10 employees	5 trainings 10 employees	Numbers
SDG 3 (Good health and well being)	Good health and well being	-	3,000	Numbers

Name of the Gold Standard approved auditor (DOE)	Earthood Services Private Limited E-0066
Name, position, and signature of the approver of the verification and certification report	 Dr. Kaviraj Singh Managing Director

SECTION A. Executive summary

The project activity is registered CDM large scale wind power plant activity with registration number UN 5186. All the previous CDM verifications (8 No.) of the project have been issued under CDM registry. Prior to current verification, the project activity has applied for transition to the GS4GG, and the transition has been approved in 23/03/2022/1.3/. The current verification is undertaken for GSVER.

The project activity consists of 63 wind energy converters of 800 kW E-53 with a total capacity of 50.4 MW. The generated electricity is supplied to the Rajasthan state electricity grid which is part of the Indian national electricity grid. The estimated net electricity generation is 94.482 GWh and the annual emission reductions are estimated to be 87,159 tCO2 per year as per the registered PDD/1.1/.

For the current monitoring period, the project activity has reduced the GHG emissions (SDG 13) in India by utilizing the renewable wind energy for generation of electricity (SDG 7), while uplifting the local economy by creating local employment (SDG 8) and doing many social benefits for the Jaisalmer District within boundaries of Rajasthan Province (SDG 3).

Scope of Verification

This verification is an independent and objective review and ex-post determination of the monitored SDG outcomes 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:

(i) The registered GS/CDM PDD and preliminary review feedback
(ii) The approved methodology mentioned in the PDD.
(iii) The registered monitoring plan.
(iv) 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
(v) Latest GS4GG requirements
(vi) CDM Validation and Verification Standard (VVS)
(vii) Principles and Requirements for GS4GG
(viii) Validation and Verification Body requirements, Product requirements and references relevant to the project activity's reported SDG outcomes

The verification has considered both quantitative and qualitative aspects on stated/reported SDG outcomes achieved as part of GS4GG. The monitoring report (all versions) and corresponding supporting documentation was assessed in accordance with the rules defined by UNFCCC and GS4GG, as appropriate to the PA. The verification is not meant to provide any consulting or recommendations to the PP/others. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

Verification process

The verification process is conducted as per internal GS Quality Manual, which includes the following steps:

a) Contract with PP and appointment of verification team and technical review team

b) Desk review of Monitoring Report and corresponding ER sheet and other supporting documents by verification team and planning of remote interviews (section D.1)
c) Remote site visit and interviews (implementation and interview with relevant stakeholders) by verification team (section D.2)
d) Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (section E)
e) Independent technical review of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidence) (section E and F)
f) Reporting and closure of TR comments/findings (CARs/CLs/FARs) and final approval for the decision made.
g) Issuance of final verification report to contracted PP (or authorized representatives) and submission of request for issuance, as appropriate.

Conclusion:

During the current monitoring period from **01/04/2020 to 30/09/2021** (inclusive of both dates), the project activity has successfully delivered **142,346.59 MWh** of electricity to the national grid under SDG 7, provided employment opportunities to a total of **10 employees** and **5 trainings** under SDG 8, impacted life of **3,000** beneficiaries for well-being and resulted in a reduction of **131,310 tCO_{2e}** GHG emissions under SDG 13. The values for the SDG impacts achieved during the current monitoring period have been reported below:

Vintage

SDG	Total	Units/ Products
	01/04/2020 to 30/09/2021	
SDG 3 (Good health and well being)	3,000	Numbers of beneficiaries
SDG 7 (Affordable and clean energy)	1,42,346.59	MWh
SDG 8 (Decent work and economic growth: Number of jobs created)	10 Employees 5 Trainings	Number of employees` No of trainings
SDG 13 (Climate action)	Total: 131,310 tCO_{2e} For Period of 01/04/2020 to 31/12/2020: 58,708 tCO_{2e} For Period of 01/01/2021 to 30/09/2021: 72,602 tCO_{2e}	GSVER

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection*	Interviews	Verification findings
1.	Team Leader and Local Expert	IR	Raval	Harsh	Central Office	Y	N	Y	Y
2.	Technical Expert and Methodology Expert	IR	Raval	Harsh	Central Office	Y	N	Y	Y
3.	Trainee Verifier	IR	Banerjee	Apoorva	Central Office	Y	N	N	Y

*No on-site inspection was conducted for this verification

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 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.	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 finalised 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.

The project activity is large scale project and applicable threshold for materiality in accordance with CDM VVS for PAs Version 02.0 paragraph 326 (c) is 2%. All the monthly reported figures for parameter EG_y were 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/document 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.
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.

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

D.2. On-site inspection and Interviews

In the context of verification, the GS4GG principles and requirements version 1.2, para 5.1.26 requires VVB to conduct a site visit including the assessment of the monitoring report and all supporting evidence and documents included by the Project Developer to demonstrate conformity. However, in view of the Covid-19 global pandemic and the Covid Interim measures version 4.0, the VVB can apply the interim measures until 30/06/2022 where on-site inspection cannot reasonably be performed due to Covid-19 and travel restrictions.

1. At the time of this verification, the cases of COVID had come down and things were similar to pre-COVID levels. However, based on the conditions laid out in Site Visit and Remote audit Requirements and Procedures, Earthood performed remote audit, as per the requirements stated in subsequent sections[1].

2. "Physical site visits are required within 2 years of the project start date and thereafter every 3 years." All other validations and verifications may be carried remotely, should the following conditions be met. The assessment team have analyzed the requirements and following step were met.

    - The project developer requested a remote audit

    - The last physical audit conducted by Earthood was on 22/02/2021 during the previous verification/2/.

    - The VVB assessed the feasibility of a remote audit as per the present requirements of the GS4GG and site conditions

    - The VVB has taken the decision on conducting a remote audit using various technologies and suitable alternate means."

    - The remote audit/17/ was performed on 30/03/2022 which is less than three years as per the guidance quoted above. The audit was conducted by a competent

[1] https://globalgoals.goldstandard.org/112_par_site-visit-and-remote-audit-requirements-and-procedures/

assessment team comprising of Team Lead, Local Expert and Technical Area Expert. All the applicable requirements as per Para 4 and 5 of Site Visit and Remote Audit Requirements and Procedures – V1.0 were checked, and procedures and guidelines provided under Para 6 of Site Visit and Remote Audit Requirements and Procedures – V1.0 were followed.

- Earthood has assessed the feasibility of the remote audit after ensuring that the field staffs are available on the date of remote audit and connectivity was good to perform a remote audit/17/. The presence and availability of relevant monitoring staff, working of site, employees and some local stakeholders were checked prior to conducting audit. Accordingly, Earthood conducted remote audit in line with the GS4GG guidelines on remote audit using remote audit techniques.

Alternative means used by VVB:

The alternative means used by VVB for purpose of inspection and verification of project details are listed below:

1. Remote interviews with the Project developer representative and O&M representative to discuss the implementation and operation of Project Activity and monitoring procedures for various parameters.

2. Remote interviews with the local employees, local stakeholders including villagers in project area to discuss employment generation by project activity, trainings given to employees and various social upliftment activity (CSR) undertaken by the project developers in the region.

3. Review of supporting documentary and photographic evidence including independent checks. The entire list of documents reviewed for purpose of verification is available in Appendix 3 of this report.

These alternative methods were considered sufficient by the verification team for the current verification.

No.	Interviewee				Subject	Team member
	Last name	First name	Affiliation	Date		
01	Chhangan	Jitendra	Site O&M representative, WWIL	30/03/2022	Monitoring and measurement system, collection of measurements, observations of established practices and data verification of monitoring parameters	Harsh Raval

					Electricity Generation records (monthly energy statements, invoices and break up sheets), Reliability & accuracy of readings considered for emission reduction calculations, Calibration procedures, Employment generation by project activity, various trainings imparted to employees and CSR activities in the region.	
02	Shenoy	Poorvi Joshi	Project Consultant and representative of project developed	30/03/2022 and continuous till closer of findings	Monitoring report and ER calculation Closer of findings Employment generation by project activity, various trainings imparted to employees and CSR activities in	Harsh Raval

					the region.	
03	-	Hanumanji	Local Villager (Jaisalmer) employed by the project	30/03/2022	Employment opportunities, Working condition Training imparted to employees CSR activity by the PD in nearby villages and schools including remote medical facilities, ration during COVID-19, Stationary distribution to school children. social and environmental benefits and impacts of project including Negative comments – if any (Not received)	Harsh Raval
04	Sanghani	Pushpendra	Local Villager (Jaisalmer) employed by the project			
05	Khan	Shoib	Local Villager (Deda) Benefited from the project			
06	Sinh	Manohar	Local Villager (Jajiya) Benefited from the project			

As evident from the table, the interviews also included the interaction with the local villagers and employees. They were questioned for various aspects as summarized below;

- Are they employed by the project? If yes, how long. Effect of project on their livelihood and income. Occupation prior to employment by the project
- Schedule, topic and helpfulness of trainings given during the employment
- Any problem related to wind turbine installation in nearby areas
- Does the noise generate by wind turbines disturbs any of their activities or comfort?
- Crosscheck of various CSR activities and benefits mentioned in the MR
- Are they happy with the benefits and development as CSR activity of the PD

- General feedback about project activity
- Do they know about the grievance and feedback back register/mechanism?
- Do they know the contact details in case of any concern/complain regarding the GS project?
- Any concerns or feedback; Positive (P) and Negative (N)

There was no negative feedback observed during the interviews.

D.3. Sampling approach

No sampling approach has been followed.

D.4. 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	-	CAR#02	-
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#02	-
Assessment of data and calculation of SDG impacts	CL 03		-
Assessment of reported sustainable development co-benefits	-	-	-
Safeguarding Principle		-	-
Monitoring Period		CAR02	-
Global stakeholder consultation	-	-	-
ER sheet	CL#01	-	-
Crediting Period	-	-	-
Scale of the project		-	-
GS Review from previous Verification: Grievance Mechanism	-	-	-
Parameters	CL#01	-	-
Others (please specify)	-	-	-
Total	**02**	**01**	**-**

SECTION E. Verification findings

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

Means of verification	The Gold Standard for Global Goals prescribes a template for MR. Therefore, PP has used the Gold standards for global goals MR

	template form version 1.1 /07/ which has been issued by Gold Standards on 14/10/2020. In addition, all the GS4GG requirements are included in accordance with the Principles and requirements in the monitoring report.
Findings	No findings were raised.
Conclusion	This is the periodic verification of the project activity and submitted final MR/6/ is found to be in compliance with the applicable latest monitoring report form/07/ and instructions contained therein.

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

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

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

Means of verification	The Monitoring Report for the project activity "Vaayu India Wind Power Project in Jaisalmer, Rajasthan", version 1.2 of 28/05/2022/6/ submitted by the project developer has been the basis for the final verification opinion and certification. The project is a 50.4 MW wind power project. The project consists of 63 WTGs each having 800 kW capacity. The WTGs have been commissioned between 14/05/2011 and 14/07/2011. The same was verified against the commissioning certificates/11/. The commercial operation of the project activity had been started on 14/05/2011, when the first WTG for the project activity was commissioned. The project boundary and location were verified from the commissioning certificates/11/ and was found to be consistent with the information mentioned in the PDD/01/. The generated electricity is supplied to the Indian grid. The geo coordinates of the WTGs forming part of the project activity, which were not visited physically were verified using Google Earth satellite imaginary. (https://earth.google.com/web/) and were found to be consistent with the same reported under Appendix 2 of the revised approved PDD. The Project implementation is found to be in line with the registered PDD/01/ as verified from the various documentary and photographic evidence/18/ submitted by the PP. Furthermore, the information about the monitoring & implementations were verified details were found to be consistent with the PDD/01/ and the MR/06/. The assessment team has checked the electricity invoices/14/ and continuous electricity generation records/15/.

During the remote audit and interviews it was observed that there are separate clusters of WTGs are made at the project site for metering. Each cluster has dedicated main and the check meter at 33 kV. 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 Wind World pooling sub-station (220 kV Bhu sub station in Jaisalmer) through 33 kV bus, from where the electricity supplied to DISCOM sub-station (400 kV Akal substation, in, Jaisalmer).

Electricity exported and imported by all the WTGs (including non-project WTGs) is recorded through the meters installed at WWIL pooling substation and at Akal substation (400 kV DISCOM substation).
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/06/ and in section B.7.2 of the registered PDD/01/.

Following meters are found to be installed during the current monitoring period.

Serial No.	Accuracy Class	Calibration dates
13194980 (Main Meter)	0.20%	22/01/2020 19/02/2021 Valid till - 19-02-2022
13194981 (Back up Meter)	0.20%	22/01/2020 19/02/2021 Valid till - 19/02/2022

A delayed calibration has been observed and the project developer has taken care of the delayed period in ER calculation/4/ by correctly applying the error factor for period of January-February 2021.

The crediting period has been from the 01/10/2011 to 30/09/2021 for the project activity. The date of previous monitoring period is from 01/01/2019 – 30/03/2020.

During the current monitoring period from 01/04/2020 to 30/09/2021, the following SDG goals have been targeted:

Sustainable Development Goals targeted	Amount achieved
SDG 13 Climate Change	131,310 tCO2e
SDG 8 Decent work and economic growth	10 Employment 5 trainings
SDG 7 Affordable and clean energy	142346.59 MWh
SDG 3 Good health and well being	3,000 beneficiaries

	Grievance Mechanism: The Project Activity has an elaborate system for recording and processing any grievances that might arise at any stage of the Project Activity. There were no complaints made in person or conveyed via telephonic call. The Project developer keeps grievance register at site office for any concerned raised by the local stakeholders and appropriate actions are being taken for the same. This register has been checked by means of photographs sent by the project developer and no concerns are found or recorded for the current monitoring period. The project implementation with reference to GS passport has been checked during the audit and it is confirmed that; The monitoring system including the measurement of parameters, data collection and archiving was also implemented and operated inline to the GS passport/registered PDD/1.1/1.2/ and transition annex /1.3/. The emission reduction was achieved in compliance with applied methodology, Registered PDD/GS passport. The project contributes to the sustainable development which includes, but not limited to, enhancement of local economy, creating employment, trainings and many other benefits to the rural population.
Findings	No issues identified and hence finding was not raised for this section.
Conclusion	The verification team confirms that: a) The project activity was found completely implemented as per the description given in the registered PDD. b) The actual operation conforms to the description in the registered PDD/01/. c) No operational parameter (information/data variable) was found deviating from the registered PDD. d) The SDG impacts for the monitoring period were found to be within the estimated quantity in the registered PDD. e) The emission reductions achieved during the current monitoring period is 131,310 tCO2e, that is within the estimated quantity (87,159 tCO2e) in the registered 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[2]

There are no temporary deviations from registered monitoring plan or applied methodology. It was verified and confirmed from the registered PDD/01/; the applied methodology and the on-site verification.

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

E.4.2. Corrections

Not Applicable.

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/8/.

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 or applied methodology/08/ during the current monitoring period.
Registered Monitoring plan was revised and approved by UNFCCC on 06/11/2013 and can be seen at the UNFCCC webpage for the project activity.

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 applied methodologies, applied standardized baselines, and other applied methodological regulatory documents

Means of verification	Based on this review it was found that the monitoring plan contained in the registered PDD/01/ includes all the required parameters to be monitored in the context of the PA design and description and allows proper determination of emission reductions in accordance with PDD/01/ and applied methodology ACM0002 "Consolidated baseline methodology for grid connected electricity generation from renewable sources"- Version 12.1.0/09/
Findings	No finding was raised.
Conclusion	The monitoring plan is in accordance with the approved methodology, ACM0002 "Consolidated baseline methodology for grid connected electricity generation from renewable sources"- Version 12.1.0/09/ as included in the GS Passport/registered PDD/01/.

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

<table>
<tr><td>Means of verification</td><td>The values of ex-ante parameter can be found in the table given below:

Parameter(s) fixed ex-ante:

<table>
<tr><th>Relevant SDG Indicator</th><th>Parameters</th><th>Value in PDD</th><th>Assessment</th></tr>
<tr><td rowspan="2">13.2.1: Number of countries that have communicated the establishment or operationalization of an integrate policy/ strategy/ plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emission development in a manner that does not threaten food production (including a national adaptation plan, nationally determined</td><td>$EF_{grid\ OM,\ Y}$ tCo2e/MWh</td><td>1.00498</td><td rowspan="2">The values for OM, BM and CM have been calculated in accordance with Applied methodology ACM0002, version 12.1.0 and Tool 7 by “Central Electricity Authority” (CEA).
The parameters are consistent with the PDD/01/ and MR /06/ and is fixed for the entire duration of the crediting period.
The values are directly sourced from CO2 Baseline Database for Indian Power Sector, version 5 published by the Central Electricity Authority, Ministry of Power, Government of India https://cea.nic.in/cdm-co2-baseline-database/?lang=en</td></tr>
<tr><td>$EF_{grid\ BM,\ Y}$ tCo2e/MWh</td><td>0.6752</td></tr>
</table>
</td></tr>
</table>

	contribution, national communication, biennial update report or other)	$EF_{grid\ CM,\ Y}$ tCo2e/MWh	0.92252	
	The assessment team has checked that the ex-ante parameter was fixed at the level of Project Activity and verified from the registered GS-PDD/01/ & MR/06/. Also, the ex-ante parameter value has been consistently applied for the ER calculation which is evident from the ER calculation sheet/04/, which is consistent with MR/06/.			
Findings	CAR#02 was raised and resolved.			
Conclusion	The ex-ante values have been correctly applied in the monitoring report/06/ by the PD and the values mentioned in the Monitoring Report /06/ were checked and verified by the assessment team and is now consistent with the registered PDD/01/. The applied value is correct and justified.			

E.6.2. Data and parameters monitored

E.6.2.1. SDG 7, indicator 7.2.1: Renewable energy share in the total final energy consumption, EGy (MWh): Net electricity generation supplied to the grid by the Project activity.

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring / Reading/ Recording Frequency	The parameter was calculated and recorded on monthly basis. EGy is calculated as the difference of net electricity exported and imported to/from the grid by the project activity. The parameter is calculated and recorded on monthly basis. However, the input values used to calculate the value of EGy are continuously monitored and monthly recorded.

<table>
<tr><td>Is measuring and metering frequency are in according with the monitoring plan and monitoring methodology? (Yes/No)</td><td>Yes, measuring and reporting frequency is in accordance with the monitoring plan /01/ and methodology/09/, and is recorded on monthly basis in the breakup sheets/15/ issued by the state utility.</td></tr>
<tr><td>Monitoring equipment</td><td>Since it is calculated value, hence not applicable.
However, the parameters used in calculation of this value are directly sourced from the measured value of electricity meters.</td></tr>
<tr><td>Is accuracy of the monitored equipment as started in the monitoring plan? If the monitoring plan does not specific the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacture’s specifications?</td><td>The accuracy of meters is 0.2s as are line with the requirement of registered monitoring plan and methodology.

This also as per the national standard with directs energy meters for having accuracy of 0.5 of higher.</td></tr>
<tr><td>Is the accuracy valid for the entire measuring range or do different accuracy levels apply to the different measuring ranges?</td><td>According to the monitoring plan and the manufacturer’s specifications, the accuracy of 0.2S is valid for the entire measuring range.</td></tr>
<tr><td>Calibration Frequency/interval:</td><td>The calibration frequency is annual as per the registered monitoring plan.</td></tr>
<tr><td>Is the calibration of the measuring equipment carried out by an accredited person or institution?</td><td>The calibration is under purview of the state agency and not under control of PD.
The calibration has been carried out by authorized state agency.</td></tr>
<tr><td>Is(are) calibration(s) valid for the whole reporting period?</td><td>Calibration is valid for the whole reporting period.
<table>
<tr><td>Serial No.</td><td>Accuracy Class</td><td>Calibration dates</td></tr>
<tr><td>13194980 (Main Meter)</td><td>0.20%</td><td>22/01/2020 19/02/2021</td></tr>
<tr><td>13194981 (Back up Meter)</td><td>0.20%</td><td>22/01/2020 19/02/2022</td></tr>
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</table>

		So, there is a delay of calibration for the period of 22/01/2021 to 19/02/2021. Hence, a correction factor of 0.2% has been applied to the monitoring parameters for the delayed period in line with the guidelines as mentioned under paragraph 366(a) of VVS PAs v03.0. The meters were working under their desired accuracy limits during the calibration/19/ and thus correction factor of 0.2 applied by the PD is found appropriate.
	How were the values in the monitoring report verified?	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/15/ for each project developer is prepared which is endorsed by state utility (DISCOM). Cumulative value of EG 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 142346.59 MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EGy were further cross-checked with the monthly invoices/14/ raised by the PP to state utility and were 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, the adequate QA/QC procedures were implemented by the PP.
	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 have been observed.
Findings	CL#01 was raised on reported data of net electricity generation based on export and import values and also for the calibration delay. CL#01 was closed successfully.	
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.6.2.2. **7.2.1: Renewable energy share in the total final energy consumption, EController,Export (MWh): Summation of electricity generated by the project activity WECs recorded at respective LCS meters.**

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Continuous measurement and monthly reported
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes/ No)	Yes, measuring and reporting frequency is in accordance with the monitoring plan as outlined in the registered PDD/01/.
	Monitoring equipment	Controller Meter: - The value is recorded continuously by the online monitoring station. This reading can also be seen in the electronic panel installed inside the WEC tower.
	Is accuracy of the monitored equipment as started in the monitoring plan? If the monitoring plan does not specific the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacture's specifications?	The Accuracy of LCS meters is in accordance with manufacture's specification and monitoring plan.

	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to the different measuring ranges?	Accuracy is valid for entire monitoring period.
	Calibration Frequency/interval:	The LCS meter do not require calibration as the energy readings of electricity generated at the LCS meter is cross verified by the energy calculated by inverting system installed in the WEGs. In case there is any mismatch in the energy values recorded by the Panel meter and the energy values calculated by the inverting system; the machine will stop working and generate the error report. The operations and maintenance staff will attend to the problem immediately in order to identify and correct the error.
	How were the values in the monitoring report verified?	The data transfer process for the said parameter is as follows: The data is generated and recorded in the SCADA system automatically. The EPC contractor, based on recorded data in the SCADA system, prepares reports. These daily generation reports are used to prepare monthly generation reports/16/. The monitoring procedures were sufficiently robust to enable accurate transmission of data. The values were verified from the monthly log sheets issued by O&M contractor/16/.
	If applicable, has the reported data been cross-checked with other available data?	No crosscheck is required since it is automatically crosschecked by Inverting system.
	Values monitored	149009.671 MWh
	Does the data management ensure correct transfer of data and reporting of SDG outcomes and are necessary QA/QC processes in place?	Data management and QA/QC procedures were found to be in place as per the registered PDD/01/.
Findings	No findings were raised during verification.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered PDD/01/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/01/.	

E.6.2.3. **7.2.1: Renewable energy share in the total final energy consumption, ΣEWEC,Export (MWh) : Summation of electricity exported to the grid by all the WECs (63 machines) included in the project activity.**

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	Calculated and monthly recorded The parameter is calculated from below measured parameters - Monthly Export Readings of Wind Farm (JMR Reading) and - Controller Reading for each WTG in the wind farm. The parameter is reported monthly in the break-up sheet, which is prepared for each project developer separately.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes/ No)	Yes, the measuring and reporting frequency is in line with the Monitoring plan/01/ & Applied methodology.
	Monitoring equipment Accuracy of equipment Calibration of equipment	This is a calculated parameter. Not applicable
	How were the values in the monitoring report verified?	The WTGs belongs to project activity are connected to various clusters and each cluster have 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 no - project activity are further connected at 220 kV Wind World sub-station (Bhu sub-station, Jaisalmer) through 33 kV bus, from where the electricity supplied to DISCOM sub-station (400 kV Akal, Jaisalmer). At the substation the electricity generated by all the WTGs (project and non-project) is being fed to the NEWNE grid. DISCOM substation 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.

		Based on the data recorded in the JMRs, electricity supplied to the grid by the project activity is calculated by O&M contractor, using the apportioning procedure and monthly breakup sheets/15/ for each project developer is prepared, which is endorsed by DISCOM. Cumulative value of this parameter for entire monitoring period is reported in the monitoring report, however monthly values are reported in the ER calculation sheet/04/. The monthly values were verified from the breakup sheets/15/ issued by O&M contractor (endorsed by state utility) and found to be consistent. Value of this parameter for the current monitoring period was verified as 142423.80 MWh.
	If applicable, has the reported data been cross checked with other available data?	The monthly values were verified from the breakup sheets/15/ issued by O&M contractor which is endorsed by state utility and used for invoicing. Thus, no further crosscheck required.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management and QA/QC procedures were found to be in place as per the registered PDD/01/.
Findings	Issue in CL#01 was raised for variation in monthly values. The issue was successfully closed. Complete data has been verified with source.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered PDD/01/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/01/.	

E.6.2.4. **7.2.1: Renewable energy share in the total final energy consumption, ΣEWEC,Import (MWh): Summation of electricity imported from the grid by all the WECs (63 machines) included in the project activity.**

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring / Reading/ Recording Frequency	Calculated and monthly recorded The parameter is calculated from below measured parameters - Monthly Import Readings of Wind Farm (JMR Reading) and - Controller Reading for each WTG in the wind farm.

		The parameter is reported monthly in the break-up sheet, which is prepared for each project developer separately.
	Is measuring and metering frequency are in according with the monitoring plan and monitoring methodology? (Yes/No)	Yes, the measuring and reporting frequency is in line with the Monitoring plan/01/ & Applied methodology
	Monitoring equipment Accuracy of equipment Calibration of equipment	This is a calculated parameter. Not applicable.
	How were the values in the monitoring report verified?	The WTGs belongs to project activity are connected to various clusters and each cluster have 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 no -project activity are further connected at 220 kV Wind World sub-station (Bhu sub-station, Jaisalmer) through 33 kV bus, from where the electricity supplied to DISCOM sub-station (400 kV Akal, Jaisalmer). At the substation the electricity generated by all the WTGs (project and non-project) is being fed to the NEWNE grid. DISCOM substation having one set of meters (main and check meter) and monthly Import reading is taken by the RRVPNL representatives in the presence of WWIL officials in the form of JMR. Based on the data recorded in the JMRs, electricity imported from the grid by the project activity is calculated by O&M contractor, using the apportioning procedure and monthly breakup sheets/15/ for each project developer is prepared, which is endorsed by DISCOM. Cumulative value of this parameter for entire monitoring period is reported in the monitoring report, however

		monthly values are reported in the ER calculation sheet/04/. The monthly values were verified from the breakup sheets/15/ issued by O&M contractor (endorsed by state utility) and found to be consistent. Value of this parameter for the current monitoring period was verified as 77.21 MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly values were verified from the breakup sheets/15/ issued by O&M contractor which is endorsed by state utility and used for invoicing. Thus, no further crosscheck required.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management and QA/QC procedures were found to be in place as per the registered PDD/1.1/. Grid Authority (RRVPNL), and the WWIL (O&M Contractor) have implemented the adequate QA/QC procedures.
Findings	Issue in CL#01 was raised for variation in monthly values. The issue was successfully closed. Complete data has been verified with source.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered PDD/01/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/01/.	

E.6.2.5. 8.5.2: Unemployment rate, by sex, age and persons with disabilities: Quality of Employment

Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring / Reading/ Recording Frequency	Measured
	Is measuring and metering frequency are in according with the monitoring plan and monitoring methodology? (Yes/No)	Yes, the measuring and recording frequency is in line with the monitoring plan of registered PDD/passport. The project passport 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.

<table>
<tr><td>Monitoring equipment/Accuracy/Calibration</td><td>Not Applicable</td></tr>
<tr><td>How were the values in the monitoring report verified?</td><td>Quality of employment generated by the project activity is monitored.

Project Developer 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 and safety, skill build-up through trainings is recorded and checked.

The following training programs/10/ to enhance the safety awareness, operational skills and occupational health management have been organized during the current monitoring period.

<table>
<tr><th>Training Objective</th><th>Date</th><th>No. of employee included</th></tr>
<tr><td>Electrical Safety & 5 Safety Rule</td><td>27/07/2020</td><td>11</td></tr>
<tr><td>Electrical Safety & LOTO Awareness</td><td>09/11/2020</td><td>19</td></tr>
<tr><td>Electrical Safety & LOTO Training</td><td>21/01/2021</td><td>9</td></tr>
<tr><td>Incident Management, HIRA & PPE Training</td><td>29/06/2021</td><td>9</td></tr>
</table>
</td></tr>
</table>

		First Aid, Fire & Electrical Safety	24/08/2021	9
	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 employment and training records/10/. Cross verified during remote audit interviews.		
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management and QA/QC procedures were found to be in place as per the registered PDD/1.1/.		
Findings	CL#03 was raised for submission of supporting. CL#03 was successfully closed.			
Conclusion	The parameter has been monitored appropriately, in accordance with the registered PDD/01/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/01/.			

E.6.2.6. 8.5.2: Unemployment rate, by sex, age and persons with disabilities, Quantitative employment and income generation: Quantitative employment and income generation

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 by the project activity. Total number of jobs created for the local population is monitored on annual basis.
	Is measuring and metering frequency are in according with the monitoring plan and monitoring methodology? (Yes/No)	Yes
	Monitoring equipment/Accuracy /Calibration	Not Applicable
	Values monitored	10

	How were the values in the monitoring report verified?	Attendance Sheet/10/ and employment records maintained by Project Developer/10/. Total number of jobs created by the project is 10 which include technical staff, non-technical staff and security guards. This is verified from the HR records that all local guards belong to the local areas. Also, most of the staff of WWIL (O&M) is from the local areas including senior personal. The local contracts for vehicle hiring and renting were also found from the local nearby areas. The assessment team has interviewed a security guard 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. There is an increase in Car/vehicle hiring and renting demand. This results in increased livelihood options and income generation for the local population.
	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 developer.
	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#03 was raised for submission of supporting. CL#03 was successfully closed.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered PDD/01/. The monitoring results were recorded	

	consistently as per the approved frequency in the monitoring plan/01/.

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):
Human and Institutional capacity, Total number of initiatives, events and programmes, primarily Health and Education Camps

Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring / Reading/ Recording Frequency	Annually 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 metering frequency are in according 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 passport.
	Value(s) of monitored parameter	Project Developer has initiated the number of CSR programmes pertaining to capacity building, health, education etc. The project developer has launched CSR program to ensure better Health, Education, Sanitation & Hygiene to nearby villagers and under-prevailed government school students. There was a COVID outbreak during the current monitoring period and due to nationwide lockdown people were facing difficulties in earning daily wage and the earning. The project developer has during this situation helped vulnerable local villagers by distribution of ration kits during lock-down/10/. The contribution made during monitoring period is mentioned below:

		1. PD introduced Safe Drinking Water facility programs in 10 govt. schools across Jaisalmer district. In this program RO water facilities have been installed at schools giving access to clean and safe water for students. 2. During the time of COVID-19 crisis dry ration kits were distributed to the needy people across 6 villages. These details of distribution and appreciations from the local village body have been provided by the PD and checked.
	How were the values in the monitoring report verified?	The values are clearly described in the MR and impacts and activities are cross checked with supporting documents. The RO installation records at 10 schools and ration kits distribution records and name of beneficiaries across 6 villages have been submitted by the PD and checked. It is confirmed that the project activity has impacted wellbeing of more than 3,000 people during the monitoring period. Assessment team feels that the number of impacts - 3,000 as considered by PD is appropriate.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Data management and QA/QC procedures were found to be in place as per the registered PDD/01/.
Findings	CL#03 was raised for submission of supporting related to activities carried out. Cl#03 was closed satisfactory.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered PDD/01/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/01/.	

E.6.3. Implementation of sampling plan

Means of verification	No sampling plan has been reported in the registered PDD/01/.
Findings	Not Applicable.
Conclusion	Not Applicable.

E.7. Comparison of monitored parameters with last monitoring period

Means of verification	This section is not applicable for non-community service activities as per GS4GG guidelines
Findings	Not Applicable.

Conclusion	Not Applicable.

E.8. Assessment of data and calculation of SDG impacts

E.8.1. Calculation and assessment of SDG outcomes

Means of verification	131,310 tCO2e (for SDG 13) 142,346.59 MWh (for SDG 7) Employment to 10 persons and 5 trainings conducted (for SDG 8) Ration distribution to vulnerable families impacted by COVID-19 Pandemic and Safe Drinking Water facility distribution to 10 schools impacting more than 3,000 people (SDG 3) **SDG 13:** As per the approved methodology ACM0002, Version 12.1.0/09/, CDM Sectoral Scope: 01, baseline emissions for the project activity are calculated by multiplying the net quantity of electricity supplied by this project activity (EGPJ, y) with the CO_2 baseline emission factor for the electricity displaced due to the project (EFgrid,CM.y) as follows: $BEy = EG_{PJ,y} \times EF_{grid,CM,y}$ where; EFgrid,CM,y = Combined margin CO2 emission factor for grid connected power generation in year y calculated using the latest version of "TOOL07: Tool to calculate the emission factor for an electricity system" (tCO2/MWh) EGPJ,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) BEy = Baseline emissions in year y (tCO_{2e}) Baseline emissions $BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$ = 142,346.59 * 0.92252 = **131,310 tCO2e** **Project emissions:** There are no project emissions involved as this project is a wind power plant and as per the methodology no project emissions are associated. **Leakage:** As per the applied methodology there is no leakage associated with the project activity. Thus, Emission Reductions = BEy – PEy - LEy = 131,310 – 0 – 0 = 131,310 tCO2e

SDG Impact	Baseline estimate	Project estimate	Net benefit
Take urgent action to combat Climate Change and its impacts	No Emission reductions in baseline	131,310 tCO2e	131,310 tCO2e

The actual values for the electricity exported to the national grid have been monitored continuously through the electricity meters installed on the project site according to the registered PDD/01/.

For SDG 8
Employment opportunities created for 10 people and at least 5 trainings were given.

SDG Impact	Baseline estimate	Project estimate	Net benefit
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	No quality of employment or skill improvement programs in baseline	Number of employment opportunities created: 10 Number of trainings given 5	Number of employment opportunities created: 10 Number of trainings given 5

As confirmed by the attendance records/10/ and the training certificates, a total of 10 employees have been hired in the Project facility during the current monitoring period.

SDG 7
Clean energy generated of 142,346.59 MWh for the current monitoring period.

SDG Impact	Baseline estimate	Project estimate	Net benefit
Ensure access to affordable, reliable, sustainable and modern energy for all	No Renewable energy generation in baseline	142,346.59 MWh	142,346.59 MWh

SDG 3
Ration distribution to 3,000 vulnerable families impacted by COVID-19 Pandemic.

	<table><tr><th>SDG Impact</th><th>Baseline estimate</th><th>Project estimate</th><th>Net benefit</th></tr><tr><td>Good health and well being</td><td>No Social benefit inpacts in baseline</td><td>3,000</td><td>3,000</td></tr></table> As confirmed by the CSR reports/10/, rations were distributed to 3000 vulnerable families impacted by COVID-19.
Findings	Issue CAR#02 was raised for consistency of SDG 7 value and unit in MR and ER sheet and comparison with ex-ante estimation. Issue in CAR#02 was successfully resolved.
Conclusion	Calculations of baseline GHG emissions was found to be satisfactory. The assessment team confirms that: (a) The monitored data was available in accordance with the registered PDD/01/ (b) The monthly reported data was cross-checked, as prescribed in the registered PDD/01/, with the invoices /14/ and was found consistent. (c) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals have been followed. (d) The assumptions, emission factors and default values that were applied in the calculations have been justified.

E.8.2. Calculation of leakage GHG emissions

Means of verification	The PA is a renewable wind energy project which involves no leakage emissions. This is found to be in line with the applied methodology ACM0002 Version 12.1.0/09/.
Findings	No findings.
Conclusion	No leakage emissions were required to be calculated.

E.8.3. Comparison of actual SDG impacts with estimates in approved PDD

Means of verification	The table below gives a comparison between the values estimated in the registered PDD/01/ and the values achieved during the current monitoring period in the MR/06/: <table><tr><th>SDG</th><th>Values estimated in ex ante calculation of approved PDD for this monitoring period</th><th>Actual values achieved during this monitoring period</th><th>Approx Difference in Estimated & Achieved value</th></tr><tr><td>SDG 13 (Climate action)</td><td>130,858 tCO2e (Estimated for 548 days for MP)</td><td>131,310 tCO2e</td><td>+ 452 tCO2e</td></tr><tr><td>SDG 7 (Affordable</td><td>141,852 MWh (Estimated for 548 days for MP)</td><td>142,346.59 MWh</td><td>+ 494 MWh</td></tr></table>

	and clean energy)			
	SDG 8 (Decent work and economic growth)	-	Number of employment opportunities created: 10 Number of trainings given: 5	In absence of the project, no one is employed.
	SDG 3 (Good health and well-being)	-	3.000 Numbers	In absence of the project, no one receives any positive change
	The actual emission reductions are slightly higher (0.345%) than estimated in registered PDD. This is normal scenario in wind power projects where generation depends on wind availability and PLF.			
Findings	No findings.			
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 - 'data and parameters monitored' section 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, IPCC default factors and other reference values were correctly applied.			

E.8.4. Actual SDG impacts

Means of verification	Earthood Services Private Limited is able to certify that the SDG outcomes from the project activity GS 5013 "Vaayu India Wind Power Project" in Jaisalmer, Rajasthan during the period 01/04/2020 to 30/09/2021 (inclusive of both dates) amounts is as follows:

SDG	SDG impact	Net benefit
SDG 13 (Climate action)	Emission reduction	131,310 tCO2e
SDG 7 (Affordable and clean energy)	MWh of renewable energy generated	142346.59 MWh
SDG 8 (Decent work and economic growth)	Employment	Number of employment opportunities

			created: 10 Number of trainings given: 5
	SDG 3 (Good health and well-being)	Good Health and Well-being	3000
Findings	No findings.		
Conclusion	The SDG outcomes were calculated fairly using the latest GS4GG principles and requirements.		

E.9. Assessment of reported Global stakeholder consultation

E.9.1.1. Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations

Means of verification	No grievances received in the previous monitoring periods/2/, which requires to be followed up. No grievances were received for this Monitoring period also. The verification team has checked the grievance register/18/ maintained at respective site office through photographs and confirmed that no formal complaints were received during the current monitoring period. During the remote site interactions with stakeholders (villagers) their feedback on the project was checked by the assessment team and all positive comments were received. No grievance or negative comments received. Details of the interviews have been provided under section D.2 of this report. During the interviews it was also checked that consulted local stakeholders were aware of the grievance mechanism and complaint procedure established by the PD and contact details in case of any complain to be communicated.
Findings	No findings
Conclusion	The grievance mechanism has been reported in line with the latest requirements of GS4GG principles and requirements/13/.

E.9.1.2. Report on any stakeholder mitigations that were agreed to be monitored

Means of verification	There were no stakeholder mitigations that were agreed to be monitored during the current monitoring period.
Findings	No findings.
Conclusion	Not Applicable.

E.9.1.3. Details of any legal contest that has arisen with the project during the monitoring period

Means of verification	There were no legal disputes that have arisen with the Project during the current monitoring period or pending from the previous monitoring period. This has been checked with

	declaration provided by the Project Developer in the MR and verified during interviews with project developer representatives and other stakeholders.
Findings	No findings.
Conclusion	Not Applicable.

E.10. Safeguards reporting

Means of verification	As per the safeguarding Principal Assessment approved in Transition Annex/1.3/ of the project, there are no safeguarding principles which are to be included in the monitoring plan/01/ or hold any relevance to the project activity. There are no impact (positive/negative/slightly) for any mitigation measures, being applicable to any of the safeguarding principles. Hence, this section is not relevant.
Findings	No findings were raised.
Conclusion	The project implementation is not harming the project in any safeguarding Principal. Therefore, no mitigation measure is required.

SECTION F. Internal quality control

The draft verification report that is prepared by verification 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 CDM rules/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.

During the technical review process additional findings may be identified or the closed-out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to Gold Standard. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the verification team. The decision taken by the Technical Reviewer is final and is authorized on behalf of Earthood Services Private Limited.

SECTION G. Verification opinion

Earthood Services Private Limited (Earthood), contracted by Vaayu (India) Power Corporation Private Limited, has performed the independent verification of the emission reductions for the GS project activity 5013 "Vaayu India Wind Power Project in Jaisalmer, Rajasthan" for the monitoring period 01/04/2020 to 30/09/2021 (inclusive of both dates) as reported in the Monitoring Report Version 1.2/06/ dated 28/05/2022. Vaayu (India) Power Corporation Private 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 based on the baseline and monitoring methodology ACM0002 Version 12.1.0/09/, the monitoring plan contained in the PDD Version 5.0/01/, and Monitoring Report (public) Version 1.3/05/ dated 23/03/2021.

Earthood'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. Earthood planned and performed the verification by obtaining evidence and other information and explanations that Earthood considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.
The assessment team confirms that:
•The project activity was found completely implemented as per the description given in the registered PDD/01/.
•The actual operation conforms to the description in the registered PDD/01/.

SECTION H. Certification statement

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity.

In our opinion the GHG emissions reductions reported for the project activity for the period 01/04/2020 to 30/09/2021 (inclusive of both days) are fairly stated in the Monitoring Report Version 1.2 (Final) dated 28/05/2022. The GHG emission reductions were calculated correctly based on the approved baseline and monitoring methodology ACM0002 Version 12.1.0/09/ and the monitoring plan contained in the PDD Version 5/01/.

Earthood Services Private Limited is able to certify that the emission reductions from the Gold Standard project activity 5013 "Vaayu India Wind Power Project in Jaisalmer, Rajasthan" during the period 01/04/2020 to 30/09/2021 (inclusive of both dates) amount to 131,310 tCO2e.

Verified and certified SDG outcomes as per commitment period:

SDG 13: 131,310 tCO_2e
SDG 7: 142346.59 MWh
SDG 8: 10 full time employees and 5 trainings conducted for skill improvement
SDG 3: 3,000 families

Appendix 1.Abbreviations

Abbreviations	Full texts
General	
ACM	Approved Consolidated Methodology
AM	Approved Methodology
AMS	Approved Methodology for SSC Projects
BE	Baseline Emission
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CH4	Methane
CL	Clarification Request
CO2	Carbon di oxide
CP	Crediting Period
CPA DD	Component Project Activity Design Document
DNA	Designated National Authority
DR	Desk Review
DOE	Designated Operational Entity
EB	Executive Board
EIA	Environmental Impact Assessment
ESPL	Earthood Services Private Limited
FAR	Forward Action Request
GHG	Green House Gas
GSC/GSP	Global Stakeholder Consultation Process
GS4GG	Gold Standard for the Global Goals
GW	Giga Watt
GWh	Giga Watt hour
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
kW	kilo Watt
kWh	kilo Watt hour
LoA	Letter of Approval/Authorization
LSC	Local Stakeholder Consultation Process
MoC	Modalities of Communication
MoEFCC	Ministry of Environment, Forest and Climate Change
MoV	Means of Validation
MP	Monitoring Plan
MW	Mega Watt
MWh	Mega Watt hour
N2O	Nitrous Oxide
OM	Operating Margin
PCP	Project Cycle Procedure
PDD	Project Design Document
PP / PD	Project Participant / Project Developer
PE	Project Emission
PP	Project Participant
PS	Project Standard
tCO_{2e}	Tonnes of Carbon di oxide equivalent
TPH	Tonnes Per Hour
UNFCCC	United Nations Framework Convention on Climate Change

V	Version

Appendix 2. Competence of team members and technical reviewers

Competence Statement			
Name	Harsh Raval		
Education	Bachelor of Engineering in Chemical Engineering Masters of Science in Environmental and Energy Engineering		
Experience	15 Years		
Field	Climate Change, Environment and Waste Management		
Approved Roles			
Team Leader	YES		
Validator	YES		
Verifier	YES		
Methodology Expert	YES (AMS-I.D, ACM0002)		
Local expert	YES (INDIA)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (1.2)	YES		
Reviewed by	Deepika Mahala (Quality Manager)	**Date**	08/12/2021
Approved by	Ashok Gautam (Technical Manager)	**Date**	08/12/2021

Competence Statement	
Name	Apoorva Banerjee
Education	M.Sc (Environmental Science) B.Sc(H) Zoology
Experience	1+ years
Field	Environmental Science and Environmental Law and Policy
Approved Roles	
Team Leader	No
Validator	No
Verifier	No
Methodology Expert	No
Local expert	No
Financial Expert	No
Technical Reviewer	No
TA Expert	No
Trainee	Yes

(Validator/Verifier)			
Reviewed by	Deepika Mahala	**Date**	14/06/2021
Approved by	Ashok Kumar Gautam	**Date**	01/07/2021

Competence Statement			
Name	Shreya Garg		
Country	India		
Education	M.Sc. (Climate Science & Policy), TERI University		
Experience	6 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
1.1	PD	CDM Registered PDD	Version: 05 Dated: 04/10/2013	Others
1.2	PD	GS Passport	Version: 1.2 Dated: 21/02/2017	Others
1.3	PD	Approved transition annex	-	PD
2	VVBs	Previous GS Verification reports and Validation reports	-	Others
3	PD	ER Spreadsheet (Initial)	Correspondin g to initial MR	PD
4	PD	ER Spreadsheet	Correspondin g to final MR	PD
5	PD	Monitoring Report	Version: 1 Dated: 23/03/2021	PD
6	PD	Monitoring Report (Final)	Version: 1.2 Dated: 28/05/2022	PD
7	GS	Monitoring Report Template and Guidelines	Version: 1.1 Dated: 14/10/2020	Others
8	GS and UNFCCC	GS4GG Project webpage https://registry.goldstandard.org/projects/details/878 UNFCCC Project webpage: https://cdm.unfccc.int/Projects/DB/DNV-CUK1315481394.7/view	-	Others
9	UNFCCC	Applied Approved Baseline and Monitoring Methodology ACM0002: Consolidated baseline methodology for grid connected electricity generation from renewable sources"	Version 12.1.0	Others
10	PD	1. CSR Report: "Ration distribution to vulnerable families impacted by COVID 19 Pandemic" and acknowledgements from local village bodies for the ration distribution with	-	PD

		name of beneficiary families 2. Training attendance records and employment records including attendance sheets 3. Distribution records for Safe Drinking Water facility programs in 10 govt. schools		
11	State utility	Commissioning certificates for all the WTGs	-	Others
12	UNFCCC	CDM project standard for project activities	Version 3.0	Others
13	ESPL	GS4GG Verification Report For the period 01/01/2019 to 31/03/2020	Version 2.0	Other
14	VIPCPL	Monthly invoices raised by the PP to state utility	For the period 01/01/2019 to 31/03/2020	PD
15	RRVPNL	Monthly breakup sheets issued by O&M contractor	For the period 01/01/2019 to 31/03/2020	PD
16	WWIL	Monthly log sheets issued by O&M contractor	For the period 01/01/2019 to 31/03/2020	PD
17	ESPL	Remote audit and Interviews conducted for the project activity on 30/03/2022	30/03/2022	Others
18	PD	Photographs for the project site WTGs, substations and meters as provided by the project developer Photographs for grievance register maintained at site	-	PD
19	PD	Calibration certificates for energy meters	-	PD

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

CAR: Corrective Action Request
CL: Clarification Request
FAR: Forward Action Request

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

FAR ID	-	**Section no.**		**Date :** DD/MM/YYYY
Description of FAR				
There is no FAR raised in the previous verifications.				
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.**	Monitored data for energy Generation	**Date :** 28/03/2022
Description of CL				
In the ER calculation sheet, following points needs clarifications: 1. The monitored data for the electricity import and export shows drastic variations in some of the Months. i.e. imports for May -20 / May-21, June-21 are very low and Sept-20, Oct-20, Sept -21 are very high. Further it is also noted that these variations are not proportional to exports. Same way, there are drastic variations in exports for some months and these variations are not subsequently reflected in imports. 2. For Month of November 2020, two bills are submitted. PD is requested to clarify the same. 3. The Project Developer has mentioned that its has applied correction factor to adjust the data due to delay in calibration. However, consideration of same is not being reflected in the ER sheet. 4. Project Developer is requested to clarify if they can add other quantifiable SDGs also in the ER sheet.				
Project participant response				**Date :** 20/04/2022
1. The variations is due to apportioning process which is followed to calculate export and import, electricity exported and imported by each WECs of project activity (63 machines) is apportioned on the basis of electricity exported recorded at the controller LCS Meter of each project activity WECs and the electricity exported & imported at the main meter and mentioned in the JMR. 2. The bills were revised by EB and revised invoice dated 15/02/2021 was submitted to DOE which is considered for billing as well as CER calculation. 3. In Current Monitoring Period for the meters installed at Jaisalmer site, calibration was due on 22/01/2021 but the same was done on 19/02/2021.Hence the calibration of the meters got delayed for the period from 22/01/2021 to 19/02/2021. However, the billing cycle is from 01st				

of every month to last day of the month, hence PP has applied correction factor for the period 01/01/2021 to 28/02/2021, the same is mentioned in ER Calculation Sheet. 4. SDGs parameters are added in revised version of ER Calculation Sheet.
Documentation provided by project participant
ER Calculation Sheet
DOE assessment | **Date:** 25/04/2022
1. The variations were due to apportioning process, which is tracked to calculate export and import, electricity generated by all 63 WECs of project activity is apportioned based on electricity generated recorded at the controller LCS Meter of each project activity WECs and is supported by the JMR shared. OK 2. The bills were amended by EB and revised invoice dated 15/02/2021 was submitted which are considered for billing as well as CER calculation. OK 3. In Current Monitoring Period for the meters installed at Jaisalmer site, calibration was due on 22/01/2021 but the same was done on 19/02/2021 and the calibration of the meters got delayed for the period from 22/01/2021 to 19/02/2021. Though, the billing cycle is from 1st of every month to last day of the month, therefore, the PP has applied correction factor for the period of 01/01/2021 to 28/02/2021, the same as mentioned in the latest ER Calculation Sheet. 4. SDGs parameters are now included in revised ER Calculation Sheet Ok. Closed.

CAR ID	02	**Section no.**	MR	**Date :** 28/03/2022
Description of CL				
1. The value mentioned in the Table 1 for SDG 7 is not consistent with the ER sheet. The PD is requested to re-check the value (unit). Also In section D.2, the value for the parameter EGy, is 142364.642 MWh, which is inconsistent with ER sheet shared. PD is requested to keep the unit of parameters similar throughout the ER & MR sheets. 2. Comparison provided with ex-ante values are not for the comparable period of monitoring period length. 3. Complete calibration details covering the monitoring period are not provided in the MR.				
Project participant response				**Date :** 20/04/2022
1. The value mentioned in the Table 1 for SDG 7 is consistent with the revised ER sheet. The value in revised MR for parameter EGy, is consistent with ER sheet. 2. The ex ante values are corrected in revised version of MR. 3. In revised version of MR, calibration details covering the monitoring period are provided.				
Documentation provided by project participant				
Revised MR				
DOE assessment				**Date:** 25/04/2022
1. The SDG 7 mentioned in the ER sheet in MWh it is now consistent with each other. 2. The ex-ante values mentioned in the MR is now consistent with the Transition annex. 3. PP has included Annex 1 that shows frequency & validity of the calibration details. However, Inconstancies observed in MR, where number of villages for ration distribution are inconstantly mentioned. Geo -location of WTGs are not provided in the MR and ER sheet does not include a project information sheet,				
Project Developer's Response			**Date:** 28/05/2022	
Corrected MR and ER sheet attached				
Documents Project by Project Developer				
Revised MR and ER sheet version 1.2				
DOE assessment:			**Date:** 28/05/2022	
The PD has corrected the MR and ER sheet. Geo locations added in MR and verified. Closed.				

CL ID	03	**Section no.**	E.4	**Date :** 16/03/2022
Description of CAR				

1. The PDD is requested to clarify the source and supporting documents for quantified value – 3000 as mentioned for SDG 3. 2. Details / supporting for safe drinking water efforts needs to be provided by PD. 3. PD is requested to provide attendance sheet and employment records as mentioned in the MR.	
Project participant response	**Date :** 20/04/2022
1. The source and supporting clarifying the source and supporting documents for quantified value – 3000 as mentioned for SDG 3 is provided to DOE, which includes a CSR report. 2. The acknowledgement letters regarding RO installation are submitted to DOE. 3. The employment records are submitted to DOE.	
Documentation provided by project participant	
Revised MR, employment details, CSR Report	
DOE assessment	**Date:** 01/05/2022
1. the CSR report shows 300 families & 1500 people were benefited. SDG 3 is not mentioned in the CSR. The MR shared still shows 3000. Kindly Clarify the difference. 2. The PP has shared the declarations that shows RO were distributed throughout the Project locations & schools 3. PP is provided attendance sheets for the Monitoring period of 2021. CL 03 is now closed.	

Table 3. FAR from this verification

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

There is no FAR from this verification.