

Verification report for GS4GG project activities (Gold Standard for the Global Goals)	
BASIC INFORMATION	
Title of the GS4GG Project activity	Mandsaur Wind Power Project in Madhya Pradesh
Reference number of the project activity	GS11402
Version number of the verification and certification report	3.0
Completion date of the verification and certification report	30/07/2024
Monitoring period number and duration of this monitoring period	Monitoring period number: 2 nd Monitoring period duration: 01/07/2022 to 31/08/2023 (including both days)
Version number of the monitoring report to which this report applies	V04, dated 18/07/2024
Crediting period of the project activity corresponding to this monitoring period	01/04/2021 to 31/03/2026 (2 nd crediting period)
Project representative(s)	ReNew Power Synergy Private Limited.
Host Party	India
Applied methodologies and standardized baselines	ACM0002 Grid-connected electricity generation from renewable sources, Version 20.0
Mandatory sectoral scopes	SS 1: Energy industries (renewable/ non-renewable sources)
Activity requirements applied	☐ Community Services Activities ☒ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A

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 7 (Affordable and Clean Energy)	MWh of renewable energy generated	69,349	64,982.46	MWh
SDG 8 (Decent Work and Economic Growth)	Number of trainings and hiring through project	3 training and employment to 10 persons	Trainings imparted – 105 Employment – 19	Number of trainings and employment generated through project
SDG 13 (Climate Action)	Emission reductions	64,529	60,466	GS VER
Name of the Gold Standard approved auditor (VVB)		Earthood Services Private Limited		
Name, position and signature of the approver of the verification and certification report		 Dr. Kaviraj Singh Managing Director		

SECTION A. Executive summary

The project "Mandsaur Wind Power Project in Madhya Pradesh" is located in Rewas Devda Village, Mandsaur, Madhya Pradesh, India. The project involves installation and operation of 45 Wind World (India) make WTGs of 0.8 MW capacity/8/ each, leading to a total installed capacity of 36 MW/8/. The wind farm was fully commissioned on 27/03/2017. The project is owned and operated by ReNew Wind Energy (MP Two) Private Limited. The project is estimated to reduce emission by 55,160 tCO₂e per annum during 5-year crediting period, renewable twice.

The project has aimed to substitute carbon intensive energy with clean wind energy and further supplying the generated energy to the Indian Grid reducing the dependency on fossil fuel powered plants and to increase employment as well as to meet the growing energy demands. As per the baseline scenario, Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants that are fossil fuel fired power plants.

During the current monitoring period from 01/07/2022 to 31/08/2023 (both dates included), the plant has successfully delivered 64,982.46 MWh of electricity thereby resulting in a reduction of 60,466 t CO₂e GHG emissions.

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

Project title	Mandsaur Wind Power Project in Madhya Pradesh
GS ID	GS11402
Monitoring period	02
GS4GG Activity Requirements	Renewable Energy Activity Requirements
Technical Area	TA 1.2
Selected Sustainable Development Goals	SDG 7, SDG 8, SDG 13
Sectoral Scope	1: Energy (renewable/non-renewable)
GS4GG Certified Product	GHG Emission Reduction and Sequestration

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 PDD and preliminary review feedback.
- (II) The approved methodology mentioned in the PDD.
- (III) The registered monitoring plan.
- (IV) GS4GG Renewable Energy Activity Requirements
- (V) Latest GS4GG requirements.
- (VI) Applied monitoring methodology
- (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 GS4GG, as appropriate to the PA. The verification is not meant to provide any consulting or recommendations to the PD/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;

- Contract with PD and appointment of verification team and technical review team (refer Section B.1 and B.2 of this report)
- Desk review (refer Section D.1 of this report) of Monitoring Report and corresponding ER sheet by verification team.
- Physical on-site inspection involving interviews with monitoring staff and PD representatives.
- Reporting and closure of findings (CARs/CLs/FARs) and preparation of draft verification report (refer Section D.5 of this report).
- Independent technical review (refer Section D of this report) of the draft verification report and final/revised documentation (e.g., Monitoring Report, corresponding ER sheet and evidence).
- Reporting and closure of TR comments/findings (refer Section D.5 of this report) (CARs/CLs/FARs) and final approval for the decision made (refer Section E and F of this report).
- Issuance of final verification report to contracted PD (or authorized representatives) and submission of request for issuance, as appropriate.

Based on the outcome of the verification process of the registered PA "Mandsaur Wind Power Project in Madhya Pradesh" for the monitoring period 01/07/2022 to 31/08/2023 (both dates included) we confirm that the implementation of referenced registered PA is complying with applicable GS4GG regulations as stated in the Monitoring Report (final) Version 4.0/3/ dated 18/07/2024. Earthood Services Private Limited is able to certify that the emission reductions from the registered GS PA (GS11402) "Mandsaur Wind Power Project in Madhya Pradesh" amount to 60,466 GSVERs. Therefore, this is being submitted for request for issuance.

SECTION B. Verification team, technical reviewer and approver

B.1. Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g., name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection*	Interview(s)	Verification findings
1.	Team Leader	IR	Varshney	Divij	Central Office	Y	Y	Y	Y
2.	TA Expert (TA 1.2)	IR	Varshney	Divij	Central Office	Y	Y	Y	Y
3.	Local Expert	IR	Varshney	Divij	Central Office	Y	Y	Y	Y

4.	GS Approved Auditor	IR	Varshney	Divij	Central Office	Y	Y	Y	Y
5	Verifier	IR	Gautam	Rahul Dev	Central Office	Y	N	N	Y

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

No.	Role	Type of resource	Last name	First name	Affiliation (e.g., name of central or other office of VVB or outsourced entity)
1.	Technical reviewer (New)	IR	Amlani	Jinesh	Central Office
2.	Technical reviewer (Old)	IR	Garg	Shreya	Central Office
3.	TA expert to TR (1.2) (New)	IR	Amlani	Jinesh	Central Office
4.	TA expert to TR (1.2) (Old)	IR	Garg	Shreya	Central Office
5.	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 finalized by an independent division.	All invoices and final tabular report issued by planification department were verified.

2.	Error in transferring the recorded data to ER sheet	Medium	The procedure for transferring in the final tabular report readings to the ER calculation sheet is manual, thus increasing the chances of error.	All invoices were cross-checked, and no such errors were identified.
3.	Error in applying the formulae in the emission reduction calculation sheet	Medium	The calculation method has been prescribed in the applied methodologies and further detailed in the registered PDD. The project involves large data, and the final emission reduction are a result of complex mathematical equations.	The emission reduction calculation sheet has been reviewed in detail by the assessment team. Each step for the calculation has been thoroughly checked to confirm the final numbers.

C.2. Consideration of materiality in conducting the verification

In accordance with GS VVS Version 01.0// para 9.6.3 the prescribed thresholds for materiality are as under;

Emission Reductions (tCO ₂ e)/year	500,000 or more	300,000 to 500,000	300,000 or less	Micro Scale CDM PAs
Materiality Threshold	0.5%	1.0%	2.0%	10.0%

The applicable materiality threshold is 2.0 % for this GS project activity.

Particulars / Monitoring Report	MR Version (Revised/Final)
Emission Reductions Achieved (tCO ₂ e) in this monitoring period	60,466 tCO ₂ e
Applicable Threshold (%)	2%

Monitored Parameter	Reporting Frequency	Number of Discrete Data	Sample selected for verification	Type of error identified	Impact on ERs
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(Symbol / Description)		(Total)	Sample (%)		ERs Impacted (Sample)	ERs Impacted (Population based on extrapolation)
EG _{facility}	Monthly	14	14(100%)	No error	No impact (100%)	No impact (100%)

SECTION D. Means of verification

D.1. Desk review

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

- A review of the data and information presented to verify their completeness.
- 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.
- A review of calculations and assumptions made in determining the SDG outcomes, GHG data and emission reductions.
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of SDG outcomes and emission reductions.

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

D.2. On-site inspection

Duration of on-site inspection: NA				
No.	Activity performed on-site	Site location	Date	Team member
	NA	NA	NA	NA

As per para 3.1.1 of site visit and remote audit requirements and procedure v4.0/08/, "At minimum, the VVB shall conduct physical site visit a. Within two years of project start date; and b. Once every three years after the first physical site visit". The last physical site

visit was conducted verification of monitoring period (01/09/2019 to 30/06/2022)/22/ on 11/07/2022. As per the guidelines of aforementioned document/08/ and hence, three years has not elapsed since the last physical site visit.

However, for the verification of current monitoring period the verification team, has conducted remote site visit/05/ on 20/10/2023 to discuss the monitoring plan of the project activity, monitoring parameters, SDG Parameters and other aspects of project. The remote audit includes an interview with the PD representative. Under the scope of remote site visit, photographic and video evidence of project activity implementation on given location and plant monitoring records were shared with the verification team a part of the assessment.

"All material impacts can be verified by examining the supporting documents provided by PP. The implementation and monitoring procedures can be confirmed through interviews with the end users, PD representatives, O&M team, and local stakeholders. Therefore, the assessment team can attain a reasonable level of assurance through a remote audit."

Thus, following auditing techniques were employed by assessment team:

- Cross checks between information provided in the registered PDD /01/ and Monitoring report.
- The VVB's sectoral & local expertise.
- Video Telephonic audio call Interviews with PP representative, O&M team and end users & consultant. Cross checks between the information provided by interviewed personnel & information provided in registered documents as well as previous validation documents and supportive documentary evidence.
- Verification and cross checks of photographic evidence of the project facility provided by the project developer.

No.	Objective of remote assessment	Assessment of the risk	Audit Technique Employed
		Risk level	
1	Review of data flow for generation, aggregation and reporting of monitoring parameters.	Low	Video Telephonic interview with monitoring personnel at the wind power plant, independent review of documentary evidence provided by the Project Developer.
2	Assessment of the correctness of implementation of procedures for operations and data collection	Low	Video Telephonic interview with monitoring personnel at the site location (Mandsaur, MP).

3	Cross-checking of information provided in MR with other sources	Low	Independent review of documentary evidence provided by project developer.
4	Assessment of monitoring equipment against the requirements of PDD and approved methodology.	Low	Independent review of documentary evidence provided by project developer.
5	Review of calculations and assumptions used to obtain the GHG data and emission reductions	Low	Independent review of Emission reduction sheet.
6	Identification of whether the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters	Low	Video telephonic/Remote interview with monitoring personnel at site location (Mandsaur, MP).
7	Confirm the SDG goals as per PDD and MR	Low	Independent review of documentary evidence provided by project developer.
8	To understand grievance (if any) from villagers during the monitoring period	Low	Video Telephonic interview with PD's representative and documentary evidence.

To verify the implementation of project activity, operation & maintenance, monitoring & management practices; assessment team has conducted Video telephonic/remote interviews with site in-charge, O&M team and had a detail discussion with the PD representative. Therefore, the selected audit techniques were deemed appropriate.

After video telephonic interviews with concerned onsite persons, document reviews and accessing the site videos/photographs submitted by PD; assessment team concluded that the project activity is still implemented and operated in-line with the registered PDD/1/. There is no change in the project design or operation and monitoring practices at site which can alter the applicability or additionality of the project activity.

The Assessment team therefore is of the opinion that project is implemented as described in the registered PDD/1/ and there is no change in monitoring practices

as well as all monitoring parameters as envisaged in the PDD/1/. All the monitored values are supported by the evidence i.e. MRs and found that information provided in the MR is in-line with the submitted evidences. The assessment team confirms that the audit techniques employed were sufficient to close the assessment and therefore, the GS Audit Techniques Tool has not been used in line with the GS4GG site visit and remote audit requirements and procedures.

D.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Kumar	Shailesh	EVOP, Region, ReNew Power MP	20/10/2023	Management and monitoring procedures followed at project site, Calibration of meters, Trainings conducted, Waste disposal, Operation and maintenance of plant site	Divij Varshney
2.	Prakash	Anand	Wind Asset Manager, ReNew Power			
3.	Singh	Puspendra	ReNew Site Engineer			
4.	Rao	Tilak	WWIL Operations			
5.	-	Tejvir	Site Incharge, WWIL			
6.	Singh	Gaurav	Execution carbon, ReNew			
7.	Kumar	Dikshant	Execution carbon, ReNew			
8.	Sharma	Kaniyalal	Farmer Local Stakeholder -	10/07/2024*	Project awareness, Feedback about the project activity, Safeguarding principles - Noise and Shadow Flickering, Grievance Mechanism	Divij Varshney
9.	Sahu	Kailash	Farmer Local Stakeholder -			
10.	Kuvar	Sonu	Housewife Local Stakeholder -			
11.	Kuvar	Baldeep	Housewife Local Stakeholder -			

*Remote Interviews through Video conference of the local stakeholders has been conducted on 10/07/2024

D.4 Sampling approach

No sampling approach has been followed. All data has been verified by the verification team.

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

Areas of verification findings	No. of CL	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form	CL#01	-	-
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	CL#02	-	FAR#01
Compliance with the calibration frequency requirements for measuring instruments	CL#02	-	-
Assessment of data and calculation of emission reduction or net removal	-	CAR#01 CAR#02	-
Assessment of reported sustainable development co-benefits	-	-	-
Global stakeholder consultation	-	-	-
Compliance with other GHG emission trading programs	-	-	-
Others (Cover page information)	-	CAR#03	-
Total	02	03	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, PD has used the gold standards for global goals MR template form/11/ version 1.1 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/06/.
Findings	CL#01 was raised and resolved
Conclusion	The final monitoring report/03/is found to be in compliance with applicable latest monitoring report form and instructions contained therein/11/.

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

FAR (FAR#01) has been raised during the previous performance review by GS. The details of which has been provided in Appendix 4 of this report.

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

Means of verification	The project "Mandsaur Wind Power Project in Madhya Pradesh" with a total installed capacity of 36 MW, located in Rewas Devda Village, Mandsaur, Madhya Pradesh, India.				
	Project Location in table below was verified from independent cross checks via Google earth as well as the remote audit and was found to be consistent with the information mentioned in PDD/1/ and the MR/3/.				
	WTG ID	Site	WTG Capacity (MW)	Latitude (N)	Longitude (E)
	MAN_2	Rewas Devda Site	0.8 MW (each)	N 24° 05' 19.3"	E 74° 58' 54.1"
	MAN_4			N 24° 05' 22.7"	E 74° 58' 47.3"
	MAN_5			N 24° 05' 29.7"	E 74° 58' 52.2"
	MAN_6			N 24° 05' 30.1"	E 74° 58' 39.9"
	MAN_7			N 24° 05' 40.1"	E 74° 58' 46.1"
	MAN_8			N 24° 05' 36.3"	E 74° 58' 31.0"
	MAN_9			N 24° 05' 43.3"	E 74° 58' 31.1"
	MAN_10			N 24° 05' 51.2"	E 74° 58' 29.7"
	MAN_11			N 24° 05' 56.5"	E 74° 58' 23.3"
	MAN_12			N 24° 05' 42.8"	E 74° 58' 13.5"
	MAN_13			N 24° 05' 44.2"	E 74° 57' 59.7"
	MAN_14			N 24° 05' 50.7"	E 74° 57' 56.3"
	MAN_15			N 24° 05' 57.4"	E 74° 57' 46.3"
	MAN_16			N 24° 06' 01.7"	E 74° 58' 02.9"
	MAN_17			N 24° 06' 11.8"	E 74° 58' 05.6"
	MAN_18			N 24° 06' 14.8"	E 74° 57' 57.7"
	MAN_19			N 24° 06' 05.5"	E 74° 57' 37.2"
	MAN_20			N 24° 06' 11.2"	E 74° 57' 32.6"
	MAN_21			N 24° 06' 14.9"	E 74° 57' 25.3"
	MAN_22			N 24° 06' 23.7"	E 74° 57' 27.4"
	MAN_23			N 24° 06' 22.9"	E 74° 57' 39.1"
	MAN_24			N 24° 06' 35.5"	E 74° 57' 33.8"
	MAN_25			N 24° 06' 40.2"	E 74° 57' 28.0"
	MAN_26			N 24° 06' 44.0"	E 74° 57' 19.7"
	MAN_27			N 24° 06' 52.9"	E 74° 57' 47.1"
	MAN_28			N 24° 06' 59.3"	E 74° 57' 45.0"
	MAN_29			N 24° 07' 05.9"	E 74° 57' 36.3"
	MAN_30			N 24° 07' 13.4"	E 74° 57' 28.6"
	MAN_31			N 24° 07' 20.0"	E 74° 57' 24.8"

MAN_32			N 24° 07' 28.4"	E 74° 57' 13.5"
MAN_33			N 24° 07' 20.3"	E 74° 57' 13.6"
MAN_34			N 24° 06' 19.8"	E 74° 56' 47.7"
MAN_35			N 24° 06' 24.9"	E 74° 56' 42.0"
MAN_36			N 24° 06' 33.1"	E 74° 56' 33.2"
MAN_37			N 24° 06' 40.0"	E 74° 56' 46.1"
MAN_40			N 24° 06' 40.9"	E 74° 56' 25.1"
MAN_38			N 24° 06' 45.3"	E 74° 56' 39.4"
MAN_39			N 24° 06' 53.4"	E 74° 56' 40.8"
MAN_41			N 24° 06' 48.4"	E 74° 56' 23.8"
MAN_42N			N 24° 06' 55.2"	E 74° 56' 21.5"
MAN_43			N 24° 07' 03.0"	E 74° 56' 12.1"
MAN_44			N 24° 07' 08.7"	E 74° 55' 57.9"
MAN_45			N 24° 07' 07.7"	E 74° 56' 44.8"
MAN_46			N 24° 07' 15.5"	E 74° 56' 44.4"
MAN_56			N 24° 08' 02.2"	E 74° 56' 21.0"

The purpose of the project activity is the generation of clean Wind energy and deliver it to the Indian National Grid. The project consist of 45 WTGs of Wind World (India) Ltd make (Model: WW- 53/0.8) of 0.8 MW capacity each, which has been confirmed during the remote audit and commissioning certificates of WTGs/13/. The wind power plant was fully commissioned in 4 stages as confirmed from the commissioning certificates issued by MPPKVVCL/13/.

WTG ID	Date of Commissioning
MAN_2, MAN_4, MAN_5, MAN_6, MAN_7, MAN_8, MAN_9, MAN_10, MAN_11, MAN_12, MAN_13, MAN_14, MAN_15, MAN_16, MAN_17, MAN_18, MAN_19, MAN_20	30/09/2015
MAN_21, MAN_22, MAN_23, MAN_24, MAN_25, MAN_26, MAN_27, MAN_28, MAN_29, MAN_30, MAN_31, MAN_32, MAN_33	30/10/2015
MAN_34, MAN_35, MAN_36, MAN_37, MAN_40	28/12/2015
MAN_38, MAN_39, MAN_41, MAN_42N, MAN_43, MAN_44, MAN_45, MAN_46, MAN_56	27/03/2017

The project activity start date is 23/12/2014 as confirmed from the supply contract with Wind World (India) Limited.

The technical specifications of WTGs were verified through the nameplate details available at the WTGs checked during the remote site visit/05/ and manufacturer's specifications of the WTGs/23/,

	which were found to be consistent with the details provided in the registered PDD/01/. It was observed during the remote site visit that the WTGs are connected to the Indian Grid through three feeders, which transmit electricity to the same substation. Each feeder has 2 meters namely, main and check meters, which is found to be inline with the registered PDD/01/. The meters box has been sealed by the Grid. The meters at the substation are used for billing purposes, which has been verified through the interviews conducted with the PD and the JMRs/15/. The PD has signed PPA/12/ with the state utility for the sale of electricity to the grid and has been supplying electricity in compliance with the PPA as confirmed from the monthly invoices/16/ and JMRs/15/. The shutdown details and maintenance records/28/ shared by the PD has been reviewed and it is evident that there is no major shutdown/breakdown during the current monitoring period. Also, Regular maintenance of the equipment installed has been conducted by the PD. It is confirmed by the VVB that the project activity has not been listed under any other compliance or voluntary market through independent cross checks of webpages of registries including Gold Standard, VERRA, GCC and CDM. The VVB has performed an independent cross check of all domestic and international registry webpages of REAC and carbon credits and it can be confirmed that the project activity has not been registered under any. The sole rights of the carbon credits generated as a result of the project activity belong to ReNew Wind Energy (MP Two) Private Limited/26/. PD has also provided the declaration/26/ for the same. The current monitoring period falls under the second crediting period of the project activity, from 01/04/2021 to 31/03/2026. This is the second verification of the project activity covering the period from 01/07/2022 to 31/08/2023. All 45 WTGs were fully functional as confirmed from the remote site audit/5/.
Findings	No findings were raised.
Conclusion	The project implementation, with reference to registered PDD/1/ was checked on site/5/ to confirm the following: • The project activity was found completely implemented as per description given in the registered PDD/1/ • The actual operation conforms to the description in the registered PDD/1/. • The emission reduction was achieved in compliance with applied methodology/10/and registered PDD/1/ • 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. • No information regarding data and variables was identified that may surpass the estimated quantity of ERs in the registered PDD. • The emission reductions achieved during the current monitoring period are (60,466 t CO₂e), that is within the

	estimated quantity (64,529 t CO ₂ e) in the registered PDD for the comparable period.
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E.4. Post-registration change

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

Not Applicable

E.4.2. Corrections

Not Applicable

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

Not Applicable

E.4.4. Inclusion of monitoring plan

Not Applicable

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

Not Applicable

E.4.6. Changes to the project design

Not Applicable.

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

Not Applicable.

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

Means of verification	The monitoring plan as contained in the Monitoring report/3/ was reviewed against the monitoring requirements of the applied methodology ACM0002 version 20/10/ as well as registered PDD/1/ with reference to the technologies involved. Based on this review it was found that monitoring plan contained in MR/3/ includes all required parameters to be monitored in the context of the project design and allows for proper determination of emission reduction in accordance with registered PDD/1/, and applied methodology/10/ ACM0002 Version 20. The review of applied methodology and monitoring plan establishes that the monitoring plan is consistent with the applied methodology/10/. In accordance with para 5.1.39 of GS Principle and requirement/06/, "Transparent, annual update reports need to be provided for Projects that have achieved the Project Design Certification stage or have
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	successfully transitioned to Gold Standard for the Global Goals. An annual report shall be submitted for each monitoring year by the end of next calendar year for which verification is not completed. If a verification is in progress but not completed, then an Annual Report is still required by the end of calendar year". PD has provided the annual report for the MP: 01/07/2022 – 31/08/2023, which covers the period from 30/06/2022 – 31/12/2022. The date of completion of the report is 18/12/2023 and date of upload as per SustainCert platform is 22/12/2023. Therefore, the annual reporting requirements are fulfilled.
Findings	FAR#01 was raised and resolved.
Conclusion	The verification team confirm that the registered monitoring plan is in accordance with approved methodology ACM0002 "Grid-connected electricity generation from renewable sources - Version 20.0" /10/ and correctly applied by registered GS 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.

Means of verification	The ex-ante values for this monitoring period were cross checked with registered PDD/1/ and their respective sources. The summary of all ex-ante parameter has been given below:		
	Parameter	Value Used	Means of Verification
	EF _{grid,BM,y}	0.8653 t CO ₂ /MWh	The value is calculated in accordance with CDM "tool to calculate the emission factor for an electricity system v7.0"/18/ using the most recent year at the time of validation 2020-21 obtained from the CEA CO ₂ baseline database for Indian Power Sector v.17/19/. The parameters is consistent with the registered PDD/1/ and is fixed for entire crediting period.
	EF _{grid,OM,y}	0.9522 t CO ₂ /MWh	The value is calculated in accordance with CDM "tool to calculate the emission factor for an electricity system v7.0"/18/ using data for the year 2018-19, 2019-20, 2020-21 obtained from the CEA CO ₂ baseline database for Indian Power Sector v.17/19/. The parameters is consistent with the registered, PDD/1/ and is fixed for entire crediting period.
	EF _{grid,CM,y}	0.9305 t CO ₂ /MWh	The value of combined margin is calculated as follows: $EF_{grid,CM,y} = EF_{grid,OM,y} * W_{OM} +$

			$EF_{grid, BM, y} * W_{BM}$ Where: $EF_{grid, BM, y}$ = Build margin CO ₂ emission factor in year y (tCO ₂ /MWh) $EF_{grid, OM, y}$ = Operating margin CO ₂ emission factor in year y (tCO ₂ /MWh) W_{OM} = Weighting of operating margin emissions factor (%) = 75% W_{BM} = Weighting of build margin emissions factor (%) = 25% The values of OM and BM are calculated in accordance with CDM "tool to calculate the emission factor for an electricity system v7.0"/18/ using data for the year 2018-19, 2019-20, 2020-21 obtained from the CEA CO ₂ baseline database for Indian Power Sector v.17./19/ The value was cross checked with the GS registered PDD/1/ and found to be consistent.
	The assessment team has checked that the ex-ante parameter has been consistently applied for ER calculation which is evident from ER calculation sheet/4/.		
Findings	CL#02 was raised and resolved.		
Conclusion	The value mentioned in MR/3/ and ER sheet /4/ is consistent with registered PDD /1/. The applied values are correct and justified.		

E.6.2. Data and parameters monitored

E.6.2.1: Quantity of net electricity generation, supplied by the project plant/unit to the grid in year y in ($EG_{facility, y}$) in MWh

Relevant SDG Indicator 7.2.1

Means of verification	Criteria/Requirements	Assessment/Observations
	Measuring /Reading /Recording frequency	Monitoring: Continuous Recording: Monthly
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the values are measured and reported accordance to monitoring plan. The electricity meters installed at the substation the values are continuously measured and the values are reported in the JMR/15/ documents on a monthly basis. The recording frequency is in line with the

		registered PDD which requires the values to be reported on monthly basis /1/.
	Monitoring equipment	45 WTGs installed at site are connected to the three feeders. Each feeders have two meters one main and one check meter. Hence, there are a total of 6 meters installed at the substation. The main meter and check meter are tri-vector meters of make SEMS, accuracy class 0.2s, with serial numbers: XB593636, XB593635, XC522563, XA474851, XD505810 and XD505811 installed in feeders 1, 2 and 3 respectively, which has been verified through the JMRs/15/ and calibration certificates/14/. The meter was calibrated annually as per the registered monitoring plan/01/. During the site visit, it has been observed that all the meters at the project site has been replaced with the new ones on 09/09/2022, which has been verified through the meter replacement certificate/14/. The accuracy of the new meters is same (0.2s), and of make SEMS with serial number QO594045, QO594069, QO603865, QO603866, QO608738, QO608739 installed in feeders 1, 2 and 3 respectively, which has been verified through the JMRs/15/ and calibration certificates/14/. The Meters were primarily replaced by the state Grid to enhance the accuracy of energy measurement and billing systems, and this was not in control of the PD. The meter replacement report has been shared by the PD, and all the meters (old and new) are found to be under the permissible error limit, and hence, found to be appropriate.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan VVBs not specify the accuracy of the monitoring equipment, VVBs the accuracy of the monitoring equipment complies with local/national standards, or as per the manufacturer's specification?	Both the meters (main and check) are of 0.2 s accuracy class and the accuracy class of the meters is found in line with monitoring plan of registered PDD/1/which specifies the accuracy as 0.2s.

	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	The accuracy is valid for the entire measuring range of the meters.
	Calibration frequency	The frequency of calibration has been defined annually in the registered PDD/1/. The meters XB593636, XB593635, XC522563, XA474851, XD505810 and XD505811 were calibrated on 23/10/2020, which has been verified through the calibration certificates/14/. The main meters and the check meters were replaced for all the 3 feeders with serial numbers: Q0594045, Q0594069, Q0603865, Q0603866, Q0608738, Q0608739. This was verified from reviewing meter replacement proforma by M.P.P.K.V.V.CO.LTD Ujjain (Dated - 09/09/2022 which is also the date of meter calibration for all the new meters.)/14/ which undertakes the activities of distribution and retail supply for Madhya Pradesh. For more details about calibration please refer section E.7 of this report. The meters are also inspected for accuracy by the authorized staff of Project Representatives as confirmed on site and were found not exceeding the permissible error.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan VVBs not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	PDD/1/ defines the calibration frequency as annual. Since, the old meters were last calibrated on 23/10/2020, the validity of the calibration as per the registered PDD/01/ is 22/10/2021. The meters were replaced on 09/09/2022 and there is no calibration in between the replacement of the new meters. Hence, there is a calibration gap from 23/10/2021 to 08/09/2022. Hence, as per the current monitoring period a calibration delay from 01/07/2022 to 31/09/2022 has been applied by the PD. For more details about calibration please refer section E.7 of this report.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	The calibration and replacement/14/ is done by M.P.P.K.V.V.CO.LTD Ujjain which undertakes the activities of distribution and retail supply for Madhya Pradesh. Please refer section E.7 for further details.

	Is(are) calibration(s) valid for the whole reporting period?	The calibration dates were delayed during this monitoring period. The details of the delayed calibration are elaborated under section E.7 of this report. The PD has applied the correction factor conservatively to estimate emission reduction as per 366(a) of CDM VVS for PAs v3.0/25/. The details pertaining to calibration and calibration delays are reported in section E.7 of this report.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Calibration was found to be for the measuring range comparable with the range for which measurements have been carried out.
	How were the values in the monitoring report verified?	The value of net electricity exported by project activity to the grid was 64,982.46 MWh and the same has been verified by the verification team. It was verified from JMRS /15/ and the invoices/16/ that records and reports the values of power exported and imported by all wind turbines on continuous basis.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC were found to be reliable and appropriate.
Findings	CL#02 was raised and resolved.	
Conclusion	Through remote site audit/5/ and assessment of documents VVB can conclude that: - The equipment used for monitoring of parameter is calibrated by the PD at a frequency specified in the applied monitoring methodology/10/ and registered monitoring plan/1/. - Monitoring results are consistently recorded as per approved frequency. - QA/QC procedures have been applied in accordance with the registered monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the WTGs. Monthly values of electricity generated inserted and in the ER sheet /4/ was verified with the import and export invoices provided by the project proponent/16/ and as per JMR /15/. Since 100% of data was verified, the team can ascertain that the values taken for emission reduction calculations are free from material errors.	

E.6.2.2: Number of Employment Generation

Relevant SDG indicator 8.5.1

Means of verification	Criteria /requirement	Assessment/Observation			
	Measuring /Reading /Recording frequency	Monthly monitoring and annual compilation.			
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is in accordance with the monitoring plan in the registered PDD/1/:			
	How were the values in the monitoring report verified?	Below is the breakup of employment generated during the monitoring period.			
		Year	Skilled	Unskilled	Total
		2022	10	3	13
		2023	6	0	6
The verification team cross checked the employment records/20/ and training records/17/ and were found in line with the values reported in the MR/3/ and ER sheet/04/.					
If applicable, has the reported data been crosschecked with other available data?	The average hourly earnings of a person are calculated by considering 8 hours per day working as per Indian standards and is depicted below. For e.g., a person is getting a monthly salary of INR 19,623; then his hourly earnings are calculated as follows: Hourly Income = 19,623/ (30*8) = INR 81.8. As per the notification from Chief Labour Commissioner, for semi-skilled workers working in B Category of cities, the daily wage is 625, and accordingly the average hourly earnings are INR 78.12. The wages of employees/workers were cross verified from the legal compliance certificate provided by the PD/20/and were found to be appropriate.				
VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC processes were found to be appropriate and reliable.				
Findings	No findings were raised.				

Conclusion	Through remote audit and assessment of documents, it can conclude that: - Monitoring results are consistently recorded as per approved frequency. - QA/QC procedures have been applied in accordance with the registered monitoring plan.
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E.6.2.3: Quality of employment

SDG indicator 8.6.1

Means of verification	<table> <tr> <th>Criteria /Requirements</th><th>Assessment/Observation</th></tr> <tr> <td>Measuring /Reading /Recording frequency</td><td>The parameter has been monitored annually by PD.</td></tr> <tr> <td>Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)</td><td>Yes, the measuring and reporting frequency is in accordance with the registered monitoring plan/1/</td></tr> <tr> <td>How were the values in the monitoring report verified?</td><td> It is verified that the Project organizes training for the staff on the technology and the monitoring of the plant operation, and the emergency and safety procedures. During the current monitoring period, a total of 105 trainings were conducted. Details of different types of trainings conducted has been provided in the MR by the PD. Training records have been submitted to the VVB for cross-check verification/17/. </td></tr> <tr> <td>If applicable, has the reported data been crosschecked with other available data?</td><td>The reported information was also cross-checked through remote site interviews/5/. Information was found to be consistent which was given in the MR/3/.</td></tr> <tr> <td>VVBs the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?</td><td>QA/QC processes were found to be appropriate and reliable.</td></tr> </table>	Criteria /Requirements	Assessment/Observation	Measuring /Reading /Recording frequency	The parameter has been monitored annually by PD.	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is in accordance with the registered monitoring plan/1/	How were the values in the monitoring report verified?	It is verified that the Project organizes training for the staff on the technology and the monitoring of the plant operation, and the emergency and safety procedures. During the current monitoring period, a total of 105 trainings were conducted. Details of different types of trainings conducted has been provided in the MR by the PD. Training records have been submitted to the VVB for cross-check verification/17/.	If applicable, has the reported data been crosschecked with other available data?	The reported information was also cross-checked through remote site interviews/5/. Information was found to be consistent which was given in the MR/3/.	VVBs the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC processes were found to be appropriate and reliable.
Criteria /Requirements	Assessment/Observation												
Measuring /Reading /Recording frequency	The parameter has been monitored annually by PD.												
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes, the measuring and reporting frequency is in accordance with the registered monitoring plan/1/												
How were the values in the monitoring report verified?	It is verified that the Project organizes training for the staff on the technology and the monitoring of the plant operation, and the emergency and safety procedures. During the current monitoring period, a total of 105 trainings were conducted. Details of different types of trainings conducted has been provided in the MR by the PD. Training records have been submitted to the VVB for cross-check verification/17/.												
If applicable, has the reported data been crosschecked with other available data?	The reported information was also cross-checked through remote site interviews/5/. Information was found to be consistent which was given in the MR/3/.												
VVBs the data management ensures correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC processes were found to be appropriate and reliable.												
Findings	No finding was raised												
Conclusion	The parameters have been monitored appropriately, in accordance with the monitoring plan and applied methodology/10/. The monitoring result were recorded consistently as per the approved frequency in												

	monitoring plan.
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E.6.2.4: Emission reductions achieved per year (ER_y, tCO_{2e})

Relevant SDG Indicator 13.2.1

Means of verification	Criteria/Requirements	Assessment/Observations
	Measuring /Reading /Recording frequency	As per monitoring period
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring and reporting frequency is in line with the Monitoring report.
	How were the values in the monitoring report verified?	Measuring impact on SDG 13: "Take urgent action to combat climate change and its impacts" and its internationally defined subtarget: "Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries". For the current MP, a total value of 60,466 t CO _{2e} has been recorded.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG _{Facility,y} were further cross-checked with the reconciliation power invoices /16/ and were found to be consistent. The final value of EG _{Facility,y} was multiplied with emission factor to attain the value for the total ERs.
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	QA/QC were found to be reliable and appropriate.
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/01/ (as per measurement methods and procedures to be applied) and applied methodology/10/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/01/.	

E.6.2.5 Noise and shadow Flickering (Safeguarding Parameter)

Means of verification	Criteria/Requirements	Assessment/Observations
	Measuring /Reading /Recording frequency	Once in First Monitoring Period
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring and reporting frequency is in line with the Monitoring report. The parameter is reported to check the noise and shadow flickering as reported by the locals. During the current monitoring period, there was no complaints regarding the same, which has been verified through the grievance register/21/ shared by the PD. Since there are no residential areas in close proximity of the project activity, the effects of noise and shadow flickering effects do not apply to the project activity. This has also been confirmed through the interviews with the local stakeholder.
	If applicable, has the reported data been cross-checked with other available data?	NA
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/01/ (as per measurement methods and procedures to be applied) and applied methodology/10/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan/01/.	

E.6.2.6 Waste Oil Disposal (Safeguarding Parameter)

Means of verification	Criteria/Requirements	Assessment/Observations
	Measuring /Reading /Recording frequency	Once in a Monitoring Period
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	The measuring and reporting frequency is in line with the Monitoring report. The parameter is reported to check the disposal of waste oil in the project site. PD has shared the disposal records/24/ and it has been confirmed that the waste oil has been disposed a proper manner through an

		authorized vendor, which is found to be appropriate. The value applied is 0.15 m³ which has been confirmed from the Manifesto for hazardous and other waste/30/. It is ensured that the waste is collected and stored in covered bins with segregated waste before handing it to the authorized government agency for disposal.
	If applicable, has the reported data been cross-checked with other available data?	NA
	VVBs the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	NA
Findings	No findings were raised.	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan/01/ (as per measurement methods and procedures to be applied) and applied methodology/10/. 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	Not Applicable
Findings	Not Applicable
Conclusion	Not Applicable

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

Means of verification	The parameter EG _{facility} , is monitored using two meters. Details of calibration and meters are mentioned below:							
	Meter Location	Meter No.	Meter Type	Make	Accuracy Class	Date of Calibration	Validity of Calibration	Delay
	Feeder 1 (Daldoda)	QO594045	Main Meter	SEMS	0.2	10/23/2020	10/22/2021	3 months delay
						9/9/2022	9/8/2023	
		QO594069	Check Meter	SEMS	0.2	10/23/2020	10/22/2021	
	Feeder	QO603	Main	SEM	0.2	10/23/20	10/22/202	3

	r 2 (Dalo da)	865	Meter	S		20	1	mont hs delay	
		QO603 866	Chec k Meter	SEM S	0.2	9/9/2022	9/8/2023		
						10/23/20 20	10/22/202 1		
	Feede r 3 (Malh argarh)	QO608 738	Main Meter	SEM S	0.2	9/9/2022	9/8/2023	3 mont hs delay	
						10/23/20 20	10/22/202 1		
		QO608 739	Chec k Meter	SEM S	0.2	9/9/2022	9/8/2023		
						10/23/20 20	10/22/202 1		
					9/9/2022	9/8/2023			
	The above meter details have been verified through the following means: i. Inspection of the meters during the remote 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 v. Meter replacement report								
	The calibration & replacement /14/ is done by M.P.P.K.V.V.CO.LTD Ujjain (Dated – 09/09/2022 which is also the date of meter calibration for all the new meters.) which undertakes the activities of distribution and retail supply for Madhya Pradesh.								
Since, the old meters were last calibrated on 23/10/2020, the validity of the calibration as per the registered PDD/01/ is 22/10/2021. The meters were replaced on 09/09/2022 and there is no calibration in between the replacement of the new meters. Hence, there is a calibration delay from 23/10/2021 to 08/09/2022.									
In Accordance with the guidelines outlined under paragraph 366(a) of CDM VVS for PAs version 03.0/25/, an error factor of 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 PD 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 PD has no control over the same.									
CEA Notification No. 502/70/CEA/DP&D dated 17/03/2006/29/ which is considered as national standard mentions that "All interface meters shall be tested at least once in five years." Hence, the calibration frequency of once in a year, mentioned in the registered PDD for the meters is appropriate.									
The verification team has verified the dates of calibration and accuracy class of the meters from the calibration certificates/14/ provided by the PD.									
The verification team confirms that all the data has been procured from calibrated meters and the calibration covers the entire monitoring period.									
Findings	CL#02 was raised and resolved.								

Conclusion	The verification team confirms that the calibration was conducted at the frequency as specified by the methodology and the registered monitoring plan contained in the registered PDD/1/.
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E.8. Assessment of data and calculation of SDG impacts

E.8.1. Calculation and assessment of SDG outcomes

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 /04/ of final Monitoring Report /03/.									
	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 /04/ of final Monitoring Report /03/ were checked and found to be consistent with the formulae and methods described in the registered monitoring plan and the applied methodology.									
	d) All assumptions used in the emission calculations were found appropriate and therefore justified,									
	e) Appropriate emission factors and other reference values have been correctly applied. This has also been elaborated under Section E.6.1 of this report.									
	f) No standardized baseline was prescribed in the registered PDD and therefore it has not been applied.									
	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.									
	$BE_y = EG_{\text{facility},y} * EF_{\text{grid,CM},y}$									
Where:										
	<table><tr><td>BE_y</td><td>=</td><td>Baseline emissions in year y (t CO₂)</td></tr><tr><td>EG_{facility,y}</td><td>=</td><td>Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh</td></tr><tr><td>EF_{grid,CM,y}</td><td>=</td><td>Combined margin CO₂ emission factor for grid connected power generation in year y</td></tr></table>	BE _y	=	Baseline emissions in year y (t CO ₂)	EG _{facility,y}	=	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh	EF _{grid,CM,y}	=	Combined margin CO ₂ emission factor for grid connected power generation in year y
BE _y	=	Baseline emissions in year y (t CO ₂)								
EG _{facility,y}	=	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh								
EF _{grid,CM,y}	=	Combined margin CO ₂ emission factor for grid connected power generation in year y								
	The baseline emissions are calculated as per the applied methodology/10/ and in accordance to registered PDD/1/. It was found to be consistent in ER calculation sheet. The value of emission reduction obtained after applying the formula mentioned in									

	methodology is: $BE_y = 64,982.46 \text{ MWh} \times 0.9305 \text{ tCO}_2/\text{MWh} = 60,466 \text{ tCO}_{2e}$
Findings	CAR#01 and CAR#02 was raised and resolved.
Conclusion	Assessment and calculation of baseline GHG emission is in line with applied methodology. The verification team confirms that (a) Appropriate methods and formulae for calculating baseline GHG emissions or baseline net GHG removals were followed; (b) Appropriate emission factors and other reference values were correctly applied. (c) The monitored data was available in accordance with the registered monitoring plan. (d) The monthly reported data was cross-checked, as prescribed in the registered PDD/1/ with the invoices /16/and was found consistent.

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

Means of verification	The registered PDD/1/ and applied monitoring methodology/10/ does not prescribe any project emissions to be considered. The remote site visit and project design also did not reveal any potential source to be considered in this regard.
Findings	No finding was raised.
Conclusion	No project emissions were required to be calculated.

E.8.3. Calculation of leakage GHG emissions

Means of verification	The registered PDD/1/ and applied monitoring methodology/10/ does not prescribe any leakage emissions to be considered. The remote site 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
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	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 registered PDD/1/ and applied methodology/10/. 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 The total number of ERs achieved during the current monitoring period is 60,466 tCO₂e

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

Means of verification	The actual emission reduction achieved in this monitoring period were found to be 6.29% lesser than the estimated quantity and 6.29% lesser generation was achieved than the estimated quantity in the registered PDD/1/ for comparable period. Since the monitoring period starts from 01/07/2022 and ends on 31/08/2023 (427 Days)	
	Values estimated in ex ante calculation of approved PDD for this monitoring period	Actual ERs achieved in the current monitoring period.
	64,529 tCO ₂ e	60,466 tCO ₂ e
Findings	CAR#01 AND CAR#02 was raised and resolved.	
Conclusion	The estimated ER for the project activity for comparable period is 64,529 tCO ₂ e while actual emission reduction achieved during the monitoring period are 60,466 tCO ₂ e. Actual emission reduction achieved 6.29 % less than the estimated value for given period in registered PDD/1/ due to technical challenges and unexpected wind regimes. No further justification is required.	

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

Means of verification	Duration of monitoring period	SDG	Estimated amount	Total amount of achieved	Units / Products
	01/07/2022 to 31/08/2023	7	69,349	64,982.46	MWh
		8	3 training and employment to 10 persons	No. of Employment Opportunities created: 19 No. of trainings conducted: 105	Persons
		13	64,529	60,466	Tons of CO ₂ e
	The values estimated in ex ante calculation of approved PDD for this monitoring period is 64,529 tCO ₂ e while actual emission reduction achieved during the monitoring period are 60,466 tCO ₂ e.				
Findings	No finding was raised				
Conclusion	The Actual emission reductions are less than the estimated emission reductions for the monitoring period. The estimated emission reductions are calculated for the monitoring period in accordance with the estimated annual emission reduction value mentioned in the PDD/1/. Hence, the achieved emission reductions are 6.29 % lower than the estimated emission reduction.				

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	The stakeholder consultation was conducted at the time of registration of the Project Activity. As verified during the remote audit /05/, the Project Activity has an elaborate grievance mechanism in place to record any inputs or feedback from the stakeholders. The Project Participants have maintained a grievance register at the O&M office wherein all the local stakeholders can submit their feedback or complaints. The stakeholders also have the option to submit their feedback via telephone or mail. However, it is to be noted that no grievance has been recorded during the current monitoring period.
Findings	No Findings were raised

Conclusion	The grievance mechanism has been reported in line with the latest requirements of GS4GG principles and requirements/06.
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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 were raised
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.
Findings	No Findings were raised
Conclusion	Not Applicable

Section F. Internal quality control

A draft verification report prepared by assessment team is reviewed by an independent Technical Review team (one or more members) to confirm if the internal procedures established and implemented by Earthood were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the applicable GS4GG and CDM principles and requirements/07/,/25/.

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

Section G. Verification opinion

Earthood Services Private Limited (Earthood), contracted by ReNew Wind Energy (Madhya Pradesh 2) Private Limited, has performed the independent verification of the emission reductions for the GS Project ID GS11402 "Mandsaur Wind Power Project in Madhya Pradesh" in "Rewas Devda & Surrounding area, Mandsaur, Madhya Pradesh" for the monitoring period 01/07/2022 to 31/08/2023(including both days) as reported in the Monitoring Report/3/, Version 4.0 dated 18/07/2024. ReNew Wind Energy (MP 2) 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 against the baseline and monitoring methodology/10/ ACM0002- Grid-connected electricity generation from renewable sources - Version 20.0/10/ the monitoring plan contained in the PDD/1/ Version 5 dated 21/07/2023, and Monitoring Report/3/. Earthood's verification approach is based on the understanding of the risks associated with reporting of SDG 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 SDG outcomes are fairly stated.

The assessment team confirms that:

The project activity was found completely implemented as per the description given in the registered PDD. The actual operation conforms to the description in the registered PDD/1/.

Earthood confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The verification activities were conducted in accordance with Earthood'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 (11402) "Mandsaur Wind Power Project in Madhya Pradesh" are correctly reported in the Monitoring Report Version 4.0(final) dated 18/07/2024 and corresponding ER sheet/4/ for the monitoring period 01/07/2022 to 31/08/2023 (including both dates) amounted as 60,466 tCO_{2e}.

Section H. Certification statement

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.

In our opinion the GHG emissions reductions reported for the project activity are fairly stated in the Monitoring Report (final) Version 4.0 dated 18/07/2024. Earthood, based on outcome of verification activities, certifies in writing that, during the monitoring period 01/07/2022 to 31/08/2023 (including both days), the registered GS PA, "Mandsaur Wind Power Project in Madhya Pradesh" achieved the verified amount of 60,466 t CO_{2e} reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

Verified and certified SDG outcomes as per commitment period:

		Amount Achieved		
Start Dates	End Dates	SDG 7	SDG 8	SDG 13
01/07/2022	31/12/2022	21028.67 MWh	44 trainings were conducted and 13 employment generated	19,567 t CO _{2e} (GSVER)
01/01/2023	31/08/2023	43,953.80 MWh	61 trainings were conducted, and 06 number of employments generated	40,899 t CO _{2e} (GSVER)

Appendix-1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
VER	Verified Emission Reduction(s)
CL	Clarification Request
EB	Executive Board
ESPL	Earthood Services Private Limited
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS	Gold Standard
IR	Internal Resource
IPCC	Intergovernmental Panel on Climate Change
JMR	Joint Meter Reading
MR	Monitoring Report
MW	Mega Watt
PDD	Project Design Document
PD	Project Developer
PPA	Power Purchase Agreement
RRECL	Madhya Pradesh Renewable Energy Corporation Limited
QA/QC	Quality Assurance / Quality Control
tCO ₂ e	tonnes of Carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
VCR	Verification and Certification Report
WTG	Wind Turbine Generator
WWIL	Wind World India Limited

Appendix 2. Competence of team member and technical reviewers

Competence Statement	
Name	Divij Varshney
Education	M.Tech. Renewable energy systems B.Tech. Electrical Engineering
Experience	1.5 years
Field	Climate Change & Environment / Industry
Approved Roles	
Team Leader	Yes (VM)
Validator	Yes (VM)
Verifier	Yes (VM)
Local expert	Yes (India)
Financial Expert	NO

Technical Reviewer	NO		
TA Expert (X.X)	Yes (VM TA 1.2, 3.1)		
Reviewed by	Shifali Guleria, Quality Manager	Date	18/09/2023
Approved by	Deepika Mahala, Technical Manager	Date	18/09/2023

Competence Statement			
Name	Rahul Dev Gautam		
Education	B.Tech in Civil Engineering M.Tech in Environmental Engineering		
Experience	1 year		
Field	Civil Engineering		
Approved Roles			
Team Leader	NO		
Validator	YES		
Verifier	YES		
Local expert	NO		
Financial Expert	NO		
Technical Reviewer	NO		
TA Expert (X.X)	NO		
Reviewed by	Shifali Guleria (Quality Manager)	Date	18/01/2024
Approved by	Deepika Mahala (Technical Manager)	Date	18/01/2024

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 1.1, TA 1.2, TA 3.1, TA 13.1)		
Reviewed by	Shifali Guleria	Date	21/12/2022
Approved by	Deepika Mahala	Date	21/12/2022

Competence Statement			
Name	Jinesh Amlani		
Education	M.Sc. Energy Systems B.Sc. Physics		
Experience	8+ years		
Field	Climate Change & Environment		
Approved Roles			
Team Leader	YES (VM Only)		
Validator	YES (VM Only)		
Verifier	YES (VM Only)		
Local expert	YES (India)		
Financial Expert	NO		
Technical Reviewer	YES		
TA Expert (X.X)	YES (TA.1.2, TA 3.1)		
Reviewed by	Shifali Guleria (Quality Manager)	Date	16/05/2024
Approved by	Deepika Mahala (Technical Manager)	Date	16/05/2024

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	ReNew Wind Energy (MP 2) Private Limited.	GS PDD	Version 05 dated 21/07/2023	PD
2.	Applus certification	Validation Report	Revision No. 03, dated 22/07/2023	Others
3.	ReNew Wind Energy (MP 2) Pvt Ltd	Monitoring Report, Version 4.0 (Final)	18/07/2024	PD
		Monitoring Report, version 1.0 (Initial)	29/09/2023	
4.	ReNew Wind Energy (MP2) Pvt Ltd	ER spreadsheet	-	PD
5.	Earthood	Remote Audit Records	20/10/2023	Others
6.	GS4GG	Principles and Requirements v1.2	October 2019	Others
7.	GS4GG	Validation and Verification Standard v1.0	06/03/2023	Others
8.	GS4GG	Site Visit and Remote Audit Requirements and Procedures v2.0.	30/05/2023	Others
9.	GS4GG	Renewable Energy Activity Requirements v1.4.	16/08/2021	Others
10.	UNFCCC	Methodology: ACM0002 "Grid-connected electricity generation from renewable sources - Version 20.0"	Version 20.0	Others
11.	GS4GG	GS4GG MR template form		Others
12.	MP PMC	Power Purchase Agreement	23.06.2015	-
13.	MP PMC (MP Power Management Co. Ltd, Jabalpur	- Commissioning certificate for WTGs MAN_2_4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 (33V Feeder 3) - Commissioning certificate for WTGs MAN_21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, and 33. (33 KV Feeder 3) - Commissioning certificate for WTGs MAN_34, 35, 36, 37, and 40. - Commissioning certificate for WTGs MAN_38, 39, 41, 42N, 43, 44, 45, 46 and 56.	30/09/2015 Document dated - 01/10/2015 31/10/2015 28/12/2015 27/03/2017	PD

			Certificate date – 06/04/20217	
14.	M.P.P.K.V.V. CO.LTD	Calibration certificates (FY 21 – 22 and 22-23) Meter replacement records	09/09/2022	PD
15.	Renew	Monthly Joint meter reading	For entire monitoring period 2	PD
16.	Renew Wind Energy (MP2) Pvt Ltd.	Signed electricity invoice	For entire monitoring period 2	PD
17.	ReNew	Training Records		PD
18.	UNFCCC	Tool to calculate the emission factor for an electricity system	- v.7.0	UNFCCC
19.	CEA	CO ₂ Baseline Database for Indian Power Sector	v.17	Others
20.	ReNew Wind Energy (MP2) Pvt Ltd.	Legal compliance certificate	-	PD
21.	ReNew Wind Energy (MP2)Pvt Ltd	Grievance Register	-	PD
22.	Applus certifications	Previous verification report (MP: 01/10/2019 to 30/06/2022)	V3.0, dated 22/07/2023	Others
23.	WW	Manufaturer's specifications	-	Others
24.	PD	Waste Disposal records	-	PD
25.	CDM	Validation and Verification Standard v3.0	9/11/2021	Others
26.	ReNew Wind Energy (MP Two) Pvt Ltd.	Undertaking letter to declare no double counting and rights to GS VERs.	-	PD
27.	ReNew Wind Energy (MP Two) Pvt Ltd	Annual Report MR2	dated 18/12/2023	PD
28.	ReNew Wind Energy (MP Two) Pvt Ltd	Maintenance schedule and records	-	PD
29.	ReNew Wind Energy (MP Two) Pvt Ltd	Single Line Diagram of Project	-	PD
30.	ReNew Wind Energy (MP Two) Pvt Ltd	Hazardous Waste passbook	-	PD
31.	ReNew Wind Energy (MP Two) Pvt Ltd	Shutdown Records	-	PD

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

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

FAR ID		Section no.	D.2	Date : 10/07/2024
Description of FAR				
1. FAR # 1: VVB shall conduct physical site visit for the next verification in accordance with Site Visit and Remote Audit Requirements and Procedures v2.0. 2. 5.1.39- Transparent, annual update reports need to be provided for Projects that have achieved the Project Design Certification stage or have successfully transitioned to Gold Standard for the Global Goals. An annual report shall be submitted for each monitoring year by end of next calendar year for which verification is not completed. If a verification is in progress but not completed, then an Annual Report is still required by the end of calendar year. 3. As per VVB requirements v2.0 p.8.2.1.5, Size and location of the facility, Type and amount of field work necessary for the verification/certification process shall be taken care by the VVB in constituting teams for the next verification. This includes the number of stakeholders interviewed for the number of facilities/locations of the project.				
Project participant response				Date : 25/07/2024
1. In accordance with the RULE UPDATE- Applicability of minimum site visit requirements dated 16/08/2021, a physical site inspection was conducted by the VVB on 11/07/2022. 2. VVB has provided the assessment on the annual report in FVR. 3. VVB has conducted the online stakeholder meeting and provided the assessment on the same.				
Documentation provided by project participant				
DOE assessment				Date: 29/07/2024
1. PD has conducted the physical site visit in the previous verification, which covers the monitoring period from 01/10/2019 to 30/06/2022 on 11/07/2022, which has been confirmed through the verification report of the previous MP, and through the audit plan of the previous verification activity shared by the PD. Hence, as per the GS para 3.1.1 of site visit and remote audit requirements and procedure v4.0. three years has not elapsed since the last physical site visit, and remote audit is deemed appropriate. 2. The Annual Report has uploaded the annual report for the MP: 01/07/2022 – 31/08/2023, which covers the period 30/06/2022 – 31/12/2022. The date of completion of the report is 18/12/2023 and date of upload as per SustainCert platform is 22/12/2023. Hence, the annual reporting requirements as per para 5.1.39 are found to be fulfilled by the PD. 3. VVB has confirmed the grievance mechanism, grievance comments and safeguarding principle through the remote site interviews conducted with the PD's representatives and through the grievance register. No negative comments regarding the project activity has been found, and hence, deemed appropriate. VVB has now also conducted the interviews with the local stakeholders through video conferencing for grievance mechanism and safeguarding principle. Details of which has been provided in section C.1 of this report. There were no grievances/ negative comments from the stakeholders.				
FAR#01 is CLOSED.				

Table 2. CL from this verification

CL ID	01	Section no.	Key project information	Date : 27/10/2023
Description of CL				
In Table 2 – Product Vintages under Key project information, PD has mentioned that 105 training sessions were conducted for the last vintage. PD shall provide the training records in order to substantiate this claim.				
Project participant response				Date : 30/10/2023
The supporting documents for training details has been shared.				
Documentation provided by project participant				
Training details				
VVB assessment				Date: 07/11/2023
PD has provided the training details and schedule through excel sheet and attendance record of the training conducted, which is found to be appropriate. It has been confirmed that regular training has been provided to the employees at the project site. The types of training provided include health and safety, working at heights, electricity safety etc.				
CL#01 is CLOSED.				

CL ID	02	Section no.	D.2.	Date : 27/10/2023
Description of CL				
Under section D.2. – Data and parameters monitored – SDG 7: While reviewing the calibration records, it was observed that the meters have been replaced with new ones, but the monitoring report only includes information about the previous meters. PD should include the details of the meter changes and their respective calibration dates.				
Project participant response				Date : 30/10/2023
The details of meter replacement and their respective calibration dates has been updated in the MR and supporting documents for the same also has been shared.				
Documentation provided by project participant				
MRV02 & Replacement certificate				
VVB assessment				Date: 07/11/2023
PD has updated all the meter numbers for parameter EG _{facility, y} along with their meter replacement documents to substantiate the same. The meters numbers are consistent with the replacement records and found to be true. PD shall also incorporate the same in ER sheet. The finding remains open.				
Project proponent response				Date : 09/11/2023
All the meter numbers with their latest calibration dates has been updated in the ER sheet and in Annexure 1 of the MR.				
Documentation provided by project proponent				
Updated ER sheet & MRV03				
VVB assessment				Date: 15/11/2023
The revised ER sheet and MR has been reviewed. PD has included the meter calibration details in both ER sheet and MR and is found to be appropriate. The details has been verified through the on-site visit and calibration certificates.				
CL#02 is CLOSED.				

Table 3. CAR from this verification

CAR ID	01	Section no.	Section E.5	Date : 27/10/2023
Description of CAR				
In section E.5 – Comparison of actual SDG impacts with estimates in the approved PDD, the value for the estimated emission reductions for SDG 13 is 69,529 t CO ₂ e, whereas the value mentioned in the ER Sheet under the ER Comparison tab, cell B7, is 64,529 t CO ₂ e. PD shall revise and update this information.				
Project participant response				Date : 30/10/2023
In Section E.5 the value for the estimated emission reductions for SDG 13 has been updated to 64,529 in the MR and now in comply with ER sheet.				
Documentation provided by project participant				
MRV02				
VVB assessment				Date: 07/11/2023
The PD had revised the value for the estimated emission reductions for SDG 13 from 69,529 t CO ₂ e to 64,529 t CO ₂ e, making it in line with the ER sheet hence the finding is closed.				
CAR#01 is CLOSED.				

CAR ID	02	Section no.	Section E.6.	Date : 27/10/2023
Description of CAR				
Under section E.6. of the MR, PD has provided incorrect values. As per the ER sheet – ER comparison tab, the correct values are as follows: 6.253% - lower emission reduction 6.255% - lower generation PD shall correct the inconsistency in the MR.				
Project participant response				Date : 30/10/2023
The value of lower emission reduction and lower generation has been updated to 6.253% & 6.255% respectively in the MR.				
Documentation provided by project participant				
MRV02				
VVB assessment				Date: 07/11/2023
The PD has revised the values for the ER comparison under section E.6. of MR making it consistent with the values provided in the ER sheet.				
CAR#02 is CLOSED.				

CAR ID	03	Section no.	Cover Page	Date : 27/10/2023
Description of CAR				
1. The PD shall correct the Section numbers for the contents of the report on the cover page as per the MR template guideline V1.1 2. Under "Key project information" the PD shall remove the template instructions before finalizing the MR.				
Project participant response				Date : 30/10/2023
1. The cover page has been updated and now as per the latest standard MR template. 2. The template instruction in the "Key project information" of MR has been removed.				
Documentation provided by project participant				
MRV02				
VVB assessment				Date: 07/11/2023

1. The PD has revised the cover page of the MR making it in line with the MR template guideline V1.1. CLOSED
2. The instruction box has been removed from the Key Project information. CLOSED

CAR#03 is CLOSED.