

**GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG)  
REPORT  
-  
VERIFICATION**



**Project Title:** Wind Power Project in Madhya Pradesh by OBWPPL  
**Monitoring Period:** 01/08/2020 to 31/12/2020(Both days included)  
**GS project ID:** GS4962  
**Internal ID:** 9421  
**Customer:** M/s Orange Bercha Wind Power Pvt. Ltd  
**Date:** 27/08/2021  
**Revision:** 02

SUMMARY			
Reference No.	Date (first version)	Version No.	Date (last version)
A+SH_SYST_TQC_GS_VER_9421	24/08/2021	02	27/08/2021
GS4GG Verification			
<b>GS4GG Certified Product (sought):</b>		GS VER	
<b>GS4GG SDG Impact Statement (sought):</b>		Impact Certification	
General Information			
<b>Client</b>	M/s Orange Bercha Wind Power Pvt. Ltd		
<b>Project Title</b>	Wind Power Project in Madhya Pradesh by OBWPPL		
<b>Project Participants</b>	M/s Orange Bercha Wind Power Pvt. Ltd		
<b>Project Location</b>	Ratlam District, Madhya Pradesh, India		
<b>Contact Person</b>	Mr. Vamsi Krishna M		
<b>Monitoring Period:</b>	01/08/2020 to 31/12/2020(Both days included)		
GS4GG Version: GS4GG Principles and Requirements 1.2		GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 1 Technical Area: 1.2	
GS4GG Activity Requirements: RE Activity Requirements, version 1.3			
Applied Methodology Version: ACM0002 "Grid-connected electricity generation from renewable sources" Version 17.0			
Current Methodology Version: ACM0002 "Grid-connected electricity generation from renewable sources" Version 20.0			
Monitoring Report Version: 01 Date: 23/04/2021		Final Monitoring Report Version: 02 Date: 12/08/2021	
Certified Project Design Document Version: Assessment team checked the registered PDD version 05 dated 22/03/2018. Date: Provided above			
Estimated values for the Monitoring period for all SDG:			
	SDG	Values estimated for this monitoring period	
7	Renewable Electricity Generated	45,899 MWh electricity generation	
8	Trainings provided to O&M staff	01 Training provided to O&M Staff	
8	Number of Jobs generated	61 jobs created	
8	Cost Spent on O&M (Million INR)	27.75 million INR spent on O&M	
13	Emission Reduction	44,876 tCO <sub>2</sub> e	

### SUMMARY

#### Actual values for the Monitoring period for all SDG:

SDG	SDG	Actual values for this monitoring period
7	Renewable Electricity Generated	38,362MWh electricity generation
8	Trainings provided to O&M staff	15 Training provided to Staff
8	Number of Jobs generated	61 jobs created
8	Cost Spent on O&M (Million INR)	27.75 million INR spent on O&M
13	Emission Reduction	37,506 tCO <sub>2</sub> e emission reduction

Selected Sustainable Development Goals (SDGs):7;8;13

### Verification Summary

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by M/s Orange Bercha Wind Power Pvt. Ltd to perform the 3<sup>rd</sup> periodical verification of "Wind Power Project in Madhya Pradesh by OBWPPL" (Ref. No. GS4962) applying the methodology ACM0002 Version 17.0.

The management of M/s Orange Bercha Wind Power Pvt. Ltd is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

A desk review and an interviews have been conducted to verify the data submitted in the monitoring report. Applus+ Certification confirms the following have been reviewed:

- a. The registered PDD including the monitoring plan;
- b. Monitoring report(s);
- c. The applied monitoring methodology;
- d. Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board;
- e. GS4GG guideline and related Annex.
- f. All information and references relevant to the project activity's resulting in emission reductions.

The project activity uses renewable energy (wind) as a clean fuel to generate electrical energy. The total installed capacity of the project activity is 50 MW. The project activity consists 25nos Gamesa make Wind Turbine Generators (WTGs) of rated capacity 2 MW. During this monitoring period 38,362 MWh of electricity displaced from INDIAN grid, which otherwise been produced through fossil fuels-based power plant, connected to the grid. The project activity is a green field project activity & generates electricity using wind energy.

The monitoring of emission reduction and sustainable development indicators has been carried out in accordance to respective registered PDD.

Applus+ Certification confirms that the project is implemented in accordance with the validated and registered PDD. The monitoring plan complies with the applied methodology ACM0002 Version 17.0 and the GS4GG guideline the monitoring has been carried out in accordance with the monitoring plan. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information reviewed and evaluated Applus+ Certification confirms that the implementation of the project has resulted in 37,506tCO<sub>2</sub>e emission reductions during period 01/08/2020 to 31/12/2020(Both days included)

ASSESSMENT TEAM		
Team Members	Type of Resource <sup>1</sup>	Organization (for OEs)
Lead Auditor: Dr. Atul Takarkhede	<input type="checkbox"/> IR <input type="checkbox"/> EI <input checked="" type="checkbox"/> OE	M/s True Quality Certifications Private Limited
Technical Expert: Dr. Atul Takarkhede	<input type="checkbox"/> IR <input type="checkbox"/> EI <input checked="" type="checkbox"/> OE	M/s True Quality Certifications Private Limited
Technical Reviewer: Mr. Denny Xue	<input type="checkbox"/> IR <input checked="" type="checkbox"/> EI <input type="checkbox"/> OE	Applus+ Certification

<sup>1</sup> IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

<b>ABBREVIATIONS</b>	
<b>ACM</b>	Approved Consolidated Methodology
<b>AM</b>	Approved Methodology
<b>AMS</b>	Approved Methodology Small Scale
<b>Applus+ LGAI / Applus+</b>	LGAI Technological Center, S.A. (Applus+ Certification)
<b>BM</b>	Build Margin
<b>CAR</b>	Corrective Action Request
<b>CDM</b>	Clean Development Mechanism
<b>CDM EB</b>	CDM Executive Board
<b>CDM VVS version 02</b>	CDM validation and verification standard for project activities, Version 02.0
<b>CER</b>	Certified Emission Reduction
<b>CL/CR</b>	Clarification Request
<b>CM</b>	Combined Margin
<b>CMP</b>	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
<b>DNA</b>	Designated National Authority
<b>DOE</b>	Designated Operational Entity
<b>EF</b>	Emission Factor
<b>EIA</b>	Environmental Impact Assessment
<b>ER</b>	Emission Reduction
<b>FAR</b>	Forward Action Request
<b>GHG</b>	Greenhouse Gas(es)
<b>GS4GG (or GS)</b>	Gold Standard for Global Goals
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>KP</b>	Kyoto Protocol
<b>MPPTCL</b>	Madhya Pradesh Power Transmission Company Limited
<b>MPPKVCL</b>	Madhya Pradesh PoorvKshetra Vidyut Vitaran Company Ltd.
<b>MPPMCL</b>	M.P. Power Management Company Limited
<b>MP</b>	Monitoring Plan
<b>MR</b>	Monitoring Report
<b>NGO</b>	Non-Governmental Organization
<b>SDG</b>	Sustainable Development Goal
<b>TAC</b>	Gold Standard Technical Advisory Committee
<b>OM</b>	Operational Margin
<b>PDD</b>	Project Design Document
<b>PP</b>	Project Participant
<b>UNFCCC</b>	United Nations Framework Convention for Climate Change

<b>VVB</b>	Validation and Verification Body
<b>VVS</b>	Validation and Verification Standard

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## **1. INTRODUCTION**

### **1.1 Objective**

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by M/s Orange Bercha Wind Power Pvt. Ltd to perform the 3<sup>rd</sup> periodical verification of "Wind Power Project in Madhya Pradesh by OBWPPL" applying the methodology ACM0002 Version 17.0 and GS4GG guideline. Gold Standard projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Gold Standard VERs.

The objective of the verification work is to assess the compliance with the requirements of paragraph 62 of the CDM Modalities and Procedures as well as the GS4GG guidelines and relevant Principles and Requirements. According to this assessment Applus+ Certification shall:

- Ensure that the project activity has been implemented and operated as per the registered PDD and that all physical features (technology, project equipment, monitoring and metering equipment) of the project are in place;
- Ensure that the published MR and other supporting documents provided are complete, verifiable and in accordance with applicable CDM validation and verification standard for project activities, Version 02.0 for the project activities and Gold Standard (i.e. applicable GS4GG requirements);
- Ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology;
- Evaluate the data recorded and stored as per the ACM0002 Version 17.0.

### **1.2 Scope**

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the DOE. The verification is based on the submitted monitoring report, registered PDD and registered Passport as well as its validation report, the applied monitoring methodology, relevant decisions, clarifications and guidance from the CMP and the EB, GS4GG guideline and any other information and references relevant to the project activity's resulting emission reductions. These documents are reviewed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures, GS4GG guideline and relevant Principles and Requirements, as well as their related rules and guidance.

Based on the requirements in the CDM validation and verification standard for project activities, Version 02.0 for the project activities as well as the GS4GG guidelines, Applus+ Certification has applied a rule-based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification considers both quantitative and qualitative information on emission reductions. The verification also considers the monitoring of SDG goals as per the requirement of GS4GG guideline.

The verification is not meant to provide any consultancy towards the client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the monitoring activities.

### **1.3 Description of the project activity**

M/s Orange Bercha Wind Power Pvt. Ltd (India) has implemented a Greenfield "Wind Power Project in Madhya Pradesh by OBWPPL" (Project activity) in Ratlam District, Madhya Pradesh, India.

The project activity located at Village Jhar, Sandala, Dhanesra & Kamed, District Ratlam of Madhya Pradesh, India. The project activity uses renewable energy (wind) as a clean fuel to generate electrical energy. The total installed capacity of the project activity is 50 MW. The project activity consists 50 nos Gamesa (Model- G97) make Wind Turbine Generators (WTGs) of rated capacity 2 MW. During this monitoring period 38,362 MWh of electricity displaced from INDIAN grid, which otherwise been produced through fossil fuels-based power plant, connected to the grid. The project activity is a green field project activity & generates electricity using wind energy. The project has obtained requisite clearances and has already commissioned and was confirmed during onsite visit & document review.

Project activity is a grid-connected large-scale 50 MW wind power generation facility.

The monitoring of emission reduction and sustainable development indicators has been carried out in accordance to respective registered PDD.

## **2. METHODOLOGY**

Applus+ Certification approach to the verification is a two-stage process. In the 1<sup>st</sup> stage, Applus+ Certification completed a strategic review and risk assessment of the project activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

Applus+ Certification used a periodical Verification Checklist which, based on the risk-based assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

In the 2<sup>nd</sup> stage, using the Verification Checklist, Applus+ Certification verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a remote audit and a desk review of the Monitoring Report. This Verification Report describes the findings of this assessment.

### **2.1 Appointment of the assessment team**

According to the sectoral scope / technical area and experience in the sectoral or national business environment, LGAI Technological Center, S.A. (Applus+ Certification) has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of LGAI Technological Center, S.A. (Applus+ Certification).

The composition of audit team shall be approved by the LGAI Technological Center, S.A. (Applus+ Certification) ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

<b>Name</b>	<b>Role</b>	<b>SS Coverage</b>	<b>TA Coverage</b>	<b>Financial aspect</b>	<b>Host country experience</b>

Dr. Atul Takarkhede	LA/TE	YES	YES	NA	YES
Mr. Denny Xue	TR	YES	YES	NA	NA

The complete list of CVs is included as Appendix 3 of this report.

## 2.2 Document review

The Monitoring Report version 01 was submitted to DOE before the verification activities started. The MR was assessed based on all the relevant documents. The aim of the assessment in the desk review was to:

- Verify the completeness of the data and the information presented in the MR;
- Check the compliance of the MR with respect to the monitoring plan depicted in the registered PDD, verify that the applied methodology was carried out. Particular attention to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures of the power plant was checked by the assessment team.
- Evaluate the data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.
- Please check reference 4 of this report for detail of the documents checked.

## 2.3 On site assessment and follow up interviews

As a part of the verification, the on-site inspection has been performed by the assessment team.

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1	Raju M	Mr. Murali Krishnam	PP representative	12/05/2021	Project implementation, Baseline emissions, ER calculations, Sustainable monitoring etc.	Dr. Atul Takarkhede
2	Arpan	Sahoo	Site Manager	12/05/2021	Project implementation, Project Monitoring and reporting	
2	Kushal	Singh	Local stakeholder	12/05/2021	Stakeholder meeting- Employment opportunities, Standard of Livings etc.	

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
3	Pratik	Kumar	Local stakeholder	12/05/2021	Stakeholder meeting- Employment opportunities, Standard of Livings etc.	

The objective of the on-site assessment is to:

- Confirm the implementation and operation of the project;
- Review the data flow for generating, aggregating and reporting the monitoring parameters;
- Confirm the correct implementation of procedures for operations and data collection;
- Cross-check the information provided in the MR documentation with other sources;
- Check the monitoring equipment against the requirements of the PDD, PDD and the approved methodology, including calibrations, maintenance, etc.;
- Review the calculations and assumptions used to obtain the GHG data and ER;
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters.
- Confirm the SDG goals/ Sustainable monitoring parameter as per the registered PDD
- To understand grievance (if any) from the villagers during the monitoring period.
- Local stakeholder meeting details:

Name of the stakeholder	Kushal Singh
Occupation	Villager
<p>DOE QUESTION: Did PP provided employment opportunity to locals?</p> <p>Answer: Yes, employment is generated and the locals are given priority. Assessment team noted that locals were employed for the project activity for the current monitoring period.</p> <p>DOE also like to conclude that during the site visit it was observed that local people were employed for security and operation related work like vegetation improvement and other unskilled work. DOE also found that skilled local persons were also employed by the organization for the operation and maintenance of the power plant.</p>	

Name of the stakeholder	Pratik Kumar
Occupation	Villager
<p>DOE questions: Did the power plant have any harmful impact on farming or vegetations?</p>	

Answer: NO. The plant is implemented in barren land and there were no any fertile land or crop which is damaged.

## 2.4 Quality of evidences

Sufficient evidence covering the full verification period in the required frequency is available to verify the figures stated in the final MR Version 02. Specific cross-checks have been done in cases that further sources were available. The monitoring report's figures were checked by the assessment team against the raw data. The data collection system meets the requirements of the monitoring plan as per the methodology.

## 2.5 Reporting of findings

As an outcome of the verification process, the assessment team can raise different types of findings.

Where a non-conformance arises the assessment team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

The assessment team shall raise a Clarification Request (CR) if information is insufficient or not clear enough to determine whether the applicable CDM/GS requirements have been met.

All CARs /CRs/ FARs raised during verification shall be resolved prior to submitting a request for issuance.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period.

Please refer Appendix 1 of this report. Total numbers of CARs: 02, CLs: 00, FARs: 02.

## 2.6 Internal Quality Control

As a final step of verification, the final documentation including the verification report has to undergo an internal quality control by the Technical Reviewer. Each report has to be finally approved either by the DOE's Technical Manager or the Deputy. This approval process also includes another quality assurance check in terms of Administrative Review. In case one of these two persons is part of the assessment team, the final approval can only be given by the person who is not a part of the assessment team. If the documents have been satisfactorily

approved, the Request for Issuance is submitted to the GS Registry along with the relevant documents.

### 3. **VERIFICATION FINDINGS**

#### 3.1 **FARs from Validation / Previous Verification**

This is 3<sup>rd</sup> periodic verification for the project activity and No FAR is raised during validation. However, 02 FAR was raised during the performance review of previous verification and same is mentioned in appendix 01 and closed successfully.

#### 3.2 **Project Implementation in accordance with the registered Project Design Document**

The project activity was fully implemented according to the description presented in the registered PDD. The assessment team confirms, through the remote audit that all physical features of the proposed project activity including data collecting systems and storage have been implemented in accordance with the registered PDD for GS4GG and Passport.

The technical features of the equipment's have been verified by the assessment team by reviewing following documentation:

- Interviews of onsite personnels during onsite visit
- Technical detail analysis of the power plant from the documents submitted by the manufacturer.
- Commissioning certificates of the plant
- PPA for the project activity
- M/s Orange Bercha Wind Power Pvt. Ltd (India) has installed wind power project at Ratlam District, Madhya Pradesh, India with capacity of 50 MW. The project activity involves installation of 25 numbers of Gamesa (Model- G97) make Wind Turbine Generators (WTGs). Technical details are as follows:

<b>POWER</b>	
Rated power	2000 kW
Average Annual Wind speed	7.5 m/s
Reference Turbulence Intensity	18 m/s
Reference 10 minute wind speed	37.5 m/s
Survival wind speed	52.5 m/s
<b>GENERATOR</b>	
Type	Doubly-fed with coil rotors and slip rings
Rated power	2 MW
Voltage	690 V AC
Frequency	50Hz/60 Hz
Protection class	IP 54 (slip ring IP 23)
Power Factor	0.95 CAP - 0.95 IND
<b>ROTOR</b>	
Diameter	97 m
Swept area	7390 sq.m
Speed range	9:19 rpm
<b>TOWER AND FOUNDATION</b>	
Hub height	104 m
Type	Tubular, Four sections

Foundation type	Floating foundation
<b>GEARBOX</b>	
Type	1 Planetary stage & 2 helical stages
Gear Ratio	1:106.8 (50 Hz), 1:127.2 (60 Hz)

All 25 WTG was commissioned on 05/05/2016 at the following locations: -

NO	WTG No	Latitude	Longitude	Tehsil/ District	Village	State
1	B 16	52.2298	25.7294	Ratlam	Jhar	Madhya Pradesh
2	B 4	52.3946	25.7375	Ratlam	Sandala	Madhya Pradesh
3	B 1	52.1672	25.7515	Ratlam	Sandala	Madhya Pradesh
4	B 72	52.3437	25.7426	Ratlam	Jhar	Madhya Pradesh
5	B 90	52.5259	25.7525	Ratlam	Jhar	Madhya Pradesh
6	B 92	52.7864	25.7393	Ratlam	Jhar	Madhya Pradesh
7	B 89	52.5573	25.7325	Ratlam	Sandala	Madhya Pradesh
8	B 86	52.5976	25.7415	Ratlam	Sandala	Madhya Pradesh
9	B 73	52.8737	25.7434	Ratlam	Sandala	Madhya Pradesh
10	B 79	52.8032	25.7356	Ratlam	Sandala	Madhya Pradesh
11	B 38	52.5999	25.7551	Ratlam	Dhanesra	Madhya Pradesh
12	B 87	52.4506	25.7245	Ratlam	Dhanesra	Madhya Pradesh
13	B 80	52.608	25.737	Ratlam	Dhanesra	Madhya Pradesh
14	B 82	52.7876	25.7563	Ratlam	Dhanesra	Madhya Pradesh
15	B 91	52.608	25.737	Ratlam	Dhanesra	Madhya Pradesh
16	B 33	52.6708	25.7399	Ratlam	Dhanesra	Madhya Pradesh
17	B 71	52.8647	25.7629	Ratlam	Kamed	Madhya Pradesh
18	T1	52.7818	25.7614	Ratlam	Kamed	Madhya Pradesh
19	T2	52.7876	25.7563	Ratlam	Kamed	Madhya Pradesh
20	B 77	52.8648	25.7588	Ratlam	Kamed	Madhya Pradesh
21	B 83	52.8737	25.7434	Ratlam	Kamed	Madhya Pradesh
22	B 78	52.8747	25.7401	Ratlam	Kamed	Madhya Pradesh
23	B 85	52.8032	25.7356	Ratlam	Kamed	Madhya Pradesh
24	B 75	52.7864	25.7393	Ratlam	Kamed	Madhya Pradesh
25	B 84	52.735	25.7416	Ratlam	Kamed	Madhya Pradesh

The WTGs are connected to following feeder of 220 KV Substation Barnagar, Ratlam district: -

Sr. No.	Substation Feeder Name	Feeder Name and Location
1	Feeder 1	B-01, B-04, B-16, B-72, B-73, B-79, B-82, B-86, B-89, B-90, B-91, B-92
2	Feeder 2	B-33, B-38, B-71, B-75, B-77, B-78, B-80, B-83, B-84, B-85, B-87, T-01, T-02

Assessment team checked the commissioning date of the project activity from the Commissioning certificate issued by the government authority i.e., MPPTCL and found the same to be appropriate.

The project activity was in normal operational during the monitoring period and the same has been confirmed during interviews with PP and crosschecked from review of JMR & breakdown records submitted by PP. Power plant was working throughout the monitoring period and same have been conformed from JMR values. No unusual activates observed during the monitoring period and plant was undergone scheduled as well as emergency maintenance as per the recommendation of the manufacturers. No forced breakdown observed and the same is confirmed by the assessment team with the plant log details and JMRs.

The verification team has reviewed the commissioning certificates & PPA to conclude that the capacity of the project is same as mentioned in the registered PDD and explained by PP during interviews. The capacity of the project activity does not change after the registration of the project activity and same have been confirmed from the commission certificate, PPA and JMRs issued by State Utility and Invoices raised by the PP towards MPPKVCL.

Also, from review of other documents such as Commissioning certificate, PPA & JMR, it was observed that the rated capacity of the project is 50 MW. The capacity of the project is more than 15 MW and thus the same qualifies as large-scale project activity.

Plant is located in Villages Jhar, Sandala, Dhanesra & Kamed, Ratlam District, Madhya Pradesh, India, India. Assessment team also checked the locations of the project activity in the registered PDD, validation report and onsite visit through GPS. Thus, location provided in MR are found inline with registered documents of the project activity.

The project is connected to National grid (as per the grid structure of India) and the same is found correct by the assessment team during the review of commissioning certificate, PPA and interviews with PP. The grid structure as mentioned in the PDD is still applicable for the project and ex-ante emission factor as proposed in the PDD is used for emission reduction calculation. Assessment team noted that the project activity has entered a power purchase agreement with the MPPMCL. The electricity is fed in the Integrated Indian grid.

The commissioning details as provided in the MR were checked with the commissioning certificates issued by MPPTCL. The commission certificate is issued by "Government agencies" which is a third-party government firm and thus the commissioning dates are acceptable to the assessment team.

Moreover, there were no changes in host country regulations which may impact either baseline or additionality of the project. Thus, assessment team confirms that the project is implemented as per the registered PDD and no change in additionality/baseline is envisaged for the present monitoring period.

The amount of GS-VERs achieved during the present monitoring period are 16.4% lower than the estimated value in the PDD. This is due to the varying capacity utilization factors during the Non peak wind season and export outages due to the breakdowns. Same is not in-hand of project developer, thus accepted by the assessment team.

Compliance of the Monitoring Plan with the Monitoring Methodology:

The verification team is able to confirm that the monitoring plan is in accordance with the approved methodology ACM0002 Version 17.0, applied by the proposed GS project activity.

No deviation, correction or permanent change to the monitoring plan has been requested or observed.

Assessment team also checked the metering details of the connected wind plant and found the same to be appropriate. Feeder details were confirmed from the interviews with PP, and JMRs submitted for current monitoring period. The monitoring meters are installed at state utility substation.

**Materiality adopted in Verification:**

Consideration of materiality in planning the verification

No.	Risk that would lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk levels	Justification	
1	Human errors: Readings from Meters (if not automatic)	LOW	Human error is likely to occur if the monitoring personnel are not trained well or inexperienced in data recording procedures and monitoring processes.	All the personal are well trained to monitor and collect data and thus risk associated with Human error is minimized. Assessment team checked the training records to confirm that all the personal are well trained to handle the activities related to monitoring. Assessment team checked the training records for the complete monitoring period and confirm that the personal are well trained to monitor and collect data for the project activity.
2	Human error: Quantification of emission reduction	LOW	Use of spread sheets without adequate data control, changes/updates, version tracking, traceability and security	All the energy statement i.e. JMR sheets and the invoices for the complete monitoring period are checked and thus the assessment team confirms that the ER value is conservative and correct.

**Consideration of materiality in conducting the verification**

In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. It invoices follows the paper trail back to the raw data such as meter reading records and invoices. There are no material errors, overestimation of ER, omission or misstatement.

### 3.3 Compliance of the Monitoring Plan with the Monitoring Methodology

The verification team is able to confirm that the monitoring plan is in accordance with the approved methodology ACM0002 Version 17.0, applied by the proposed GS project activity.

No deviation, correction or permanent change to the monitoring plan has been requested or observed.

### 3.4 Completeness of Monitoring

The monitoring has been carried out in accordance with the monitoring plan contained in the PDD. All parameters were monitored and determined as per the monitoring plan of the PDD as follows:

#### a. Data and parameters fixed ex ante or at renewable of crediting period

$EF_{OM,y}$ ,  $EF_{BM,y}$  &  $EF_{CM,y}$  were mentioned as ex-ante fixed parameter.

The value for  $EF_{OM,y}$ ,  $EF_{BM,y}$  &  $EF_{CM,y}$  was considered from the CO<sub>2</sub> baseline database published by Central Electricity Authority (CEA) version 11. The default value as mentioned in the registered PDD and MR are same. The value of combined margin in India is being given by CEA (= Central Electricity Authority, Govt. of India) and thus assessment team concludes that the value is correct and appropriate. The default value in turn is used for baseline calculation as per the formula given in the registered PDD for the current monitoring period. Assessment team checked the values, source of data, choice of data, purpose of the data mentioned in the MR from the registered PDD and confirms that the similar approach was considered for the current monitoring period also.

The relevant Emission factor values used for emission reduction calculation is as below. Also as GS4GG "Principles and Requirements" V 1.2 the ex-ante fixed parameters are now connected to relevant SDG indicator which is acceptable to the assessment team.

$EF_{OM,y}$ - Relevant SDG Indicator= SDG13: Climate Action= 0.9941tCO<sub>2</sub>e/MWh

$EF_{BM,y}$ - Relevant SDG Indicator= SDG13: Climate Action= 0.9285tCO<sub>2</sub>e/MWh

$EF_{CM,y}$ - Relevant SDG Indicator= SDG13: Climate Action= 0.9777tCO<sub>2</sub>e/MWh

#### b. Data and parameters monitored

As per the registered monitoring plan and requirement of the registered methodology following parameters needs to be monitored:

#### Relevant SDG indicators= 7 and 13

1.  $EG_{facility,y}$ : Quantity of net electricity supplied to the grid during the year y.

The parameter is calculated using the difference of export and import value measured from the tri-vector meter. The parameter also forms the part of energy injection report as in line with the registered PDD. Assessment team checked the value of Net electricity exported calculated from export and import values and found the same to be correct. The Net electricity supplied to the grid is also checked from the JMR statement and found correct. Thus, it is confirmed that the values are correct. Assessment team thus confirm that the value of 38,362 MWh as mentioned in the MR version 02 and emission sheet is correct and the same is in compliance with the requirement of Para 364 and 395 (e) of "CDM validation and verification standard for project activities, Version 02.0".

The Assessment team studied the JMR’s issued by the State Utility. The Assessment team also cross-verified the Power Exported values with the help of invoices raised by PP and found correct as per the JMR issued. Calibration of the meter is carried out once in 5 years, however no delay is observed in the scheduled calibration. Same was addressed in line with para369 & 370 of the “CDM validation and verification standard for project activities, Version 02.0”.

**Relevant SDG indicators= 8**

**2. Quality of employment:** Trainings provided to employees & O&M staffs

The number of trainings provided to the employees and O&M staff by the project proponent. The assessment team verified the same during site visit and thus confirm that the total15 trainings has been held during the course of time as mentioned in the MR version 02.

**3. Quantitative employment and income generation:** Total employment generated due to the implementation of project activity and the amount spent for O&M activities due to the project.

The assessment team verified the same during site visit and thus confirm that total 61 personnel are employed and 27.75 million INR is spent for the O&M of the project activity as mentioned in the MR version 02. Assessment team found it consistent with the employment records. Thus, accepted.

**c. Implementation of sampling plan**

PP did not apply sampling plan to determine data and parameters monitored during this monitoring period. The verification team has checked all the documents such as JMR issued by State electricity board /Invoices etc. and hence sampling plan was not required. The verification team hereby confirms that has checked all the documents.

**d. Compliance with the calibration frequency requirements for measuring instruments**

The calibration details such as make, accuracy class serial number is as per the meter available onsite and checked during verification site visit. The Calibration details are presented in Appendix 2 of this report. Calibration of meters carried out by a NABL accredited company for testing and calibration, Govt of India (<http://www.nabl-india.org/>) to carry out calibration.

Assessment team checked the same and found that the calibration is appropriate and correct as traceability is ensured. The meters were calibrated as per the norms of NABL and the meters are within the permissible error limit.

**3.5 SDG Outcomes Monitoring**

In the Registered PDD indicators are chosen for the monitoring of sustainable monitoring:

Meth/tool	Relevant indicator	SDG	PDD	MR	Compliance
Quantity of net electricity supplied to the	SDG 7.2: By 2030, increase substantially the share of renewable energy in the global		Quantity of net electricity supplied to the grid during	Quantity of net electricity supplied to the grid during	Yes

Meth/tool	Relevant indicator	SDG	PDD	MR	Compliance
grid	energy mix		the year y (MWh)	the year y (MWh)	
<ul style="list-style-type: none"> <li>Quantitative employment,</li> <li>Quality of employment</li> <li>Income generation</li> </ul>	8.6: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value		<ul style="list-style-type: none"> <li>Quantitative employment and income generation</li> <li>Quality of Employment.</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative employment and income generation</li> <li>Quality of Employment.</li> </ul>	Yes
Take urgent action to combat climate change and its impacts	SDG 13: Take urgent action to combat climate change and its impacts		Reduction in CO2 emission reduction due to implementation of project activity	Reduction in CO2 emission reduction due to implementation of project activity	Yes

The verification of the parameters required by the monitoring plan is provided as follows:

Relevant SDG Indicator	SDG 7.2.1: Affordable and Clean Energy
Data/parameter:	EG <sub>facility,y</sub>
Unit	MWh
Description	Quantity of net electricity supplied to the grid during the year y
Source of data checked by the assessment team	Monthly JMR provided by State Utility
Value(s) of monitored parameter	38,362
Means of verification:	<p>The parameter is calculated based on the difference between values of "export" and "import" on the energy meter at the sub-station (evacuation point). The Meter Reading Statement (JMR sheets) issued by State board which provide the values of export and import for the month. The same is thus used for emission reduction calculation. The project activity includes metering at the substations managed by MPPKVCL&amp; PP/O&amp;M Contractor. The electricity exported &amp; imported are measured by Energy meters (main meter) installed at each line in substation. The reading is recorded and the difference from last month reading gives the number of units imported/exported. The installed meters are of 0.2s accuracy class. The export and import reading is continuous and recording frequency is monthly. The QA/QC procedure is as per the requirement of the registered PDD and onsite practice. Assessment team confirms the same during the onsite interviews with PP. Assessment team checked all the values of calculated Net electricity supplied to the grid from the Meter reading statement (provides the value of export and import) issued by State electricity board. Moreover, as per the requirement of the approved methodology and registered PDD, assessment team cross checked the net electricity value as presented in the JMR with the invoice raised and found the values match with each other. The same is thus acceptable to the assessment team and thus emission reduction calculation are correct. The details of the Meters are provided in appendix 2 of the report.</p>
Cross check mechanism	The JMR is cross-checked with the invoice copies. Emission reduction calculated in thus correct and accurate. The cross-check mechanism is presented in the emission reduction calculation sheet and the same is

	found correct.
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<b>Relevant SDG Indicator</b>	<b>SDG 13.2.1: Climate Action</b>
<b>Data/parameter:</b>	<b>ER<sub>y</sub></b>
Unit	tCO <sub>2</sub>
Description	Reduction in CO2 emission reduction due to implementation of project activity
Source of data checked by the assessment team	Emission reduction sheet
Value(s) of monitored parameter	37,506
Means of verification:	Assessment team checked that the parameter is calculated. The electricity exported & imported measured by Energy meter installed at substation. The JMR is cross-checked with the invoice copies. Emission reduction calculated in thus correct and accurate.
Cross check mechanism	All the formulas are applied inline with the registered GS4GG PDD

<b>Relevant SDG Indicator</b>	<b>SDG 8.5.1: Decent Work and Economic Growth</b>
<b>Data/parameter:</b>	<b>Quality of employment</b>
Unit	Number of Trainings provided to employees
Description	Training of Staff
Source of data checked by the assessment team	Training Records, HSE & HR records
Value(s) of monitored parameter	Assessment team checked Number of Trainings provided to employees & O&M staffs. A total of 15 training programmes to its employees and O&M staffs. The training records for the monitoring period is checked by the assessment team and found correct. Further, during interviews with service provider it was noted that there were no occupational injuries/near miss events happened during this monitoring period. EHS training are conducted regularly and standard training calendar is followed by service provider for technical & EHS trainings.
Means of verification:	The value for this parameter is taken from Plant records. Verification team interviewed some employees & local stakeholders.
Cross check mechanism	Not applicable

<b>Relevant SDG Indicator</b>	<b>SDG 8.5.1: Decent Work and Economic Growth</b>
<b>Data/parameter:</b>	<b>Quantitative employment and income generation</b>
Unit	<ul style="list-style-type: none"> <li>Number of O&amp;M staffs involved in the project</li> <li>Cost spent for O&amp;M</li> </ul>
Description	<ul style="list-style-type: none"> <li>Total employment generated due to the implementation of project activity.</li> <li>The amount spent for O&amp;M activities due to the project.</li> </ul>
Source of data checked by the assessment team	Plant employment records and O&M agreement
Value(s) of monitored parameter	Assessment team checked that for Quantity of employment and income generation. Employment is given in office work, O&M, Security etc. A total of 61 employments during monitoring period. Moreover, 27.75 million INR is spent for O&M of the project activity. The employment records and O&M contract for the monitoring period is checked by the

	assessment team and found correct. VVB also checked the salary slips of the employees and found that the salaries of the employees in the project activity are in line with industry standard.
Means of verification:	The value for number of employments created is taken from Plant employment records and O&M agreement.
Cross check mechanism	Not applicable

<b>Relevant SDG Indicator</b>	<b>SDG 8: Species mortality &amp; Bird strikes</b>
<b>Data/parameter:</b>	<b>Bird &amp; Bat Deaths</b>
Unit	No's
Description	<ol style="list-style-type: none"> <li>1. During the siting activity it was ensured that there are no water bodies b</li> <li>2. Water pits are not allowed around the WTGs.</li> <li>3. None of the area of WTGs erection or transmission lines are under sensi areas of conservation importance</li> <li>4. The transmission lines wherever required has reflectors</li> <li>5. Storm water control around within 100m of every WTG</li> </ol>
Source of data checked by the assessment team	Bird strike register & Interview with O&M team
Value(s) of monitored parameter	<p>The O&amp;M team maintenances a Bird strike register. As per the record, there are no observed carcasses in vicinity of the WTGs.</p> <p>The project activity's micro-siting had been done considering possible impact on flora and fauna. The choice of sites has been carefully done considering the preliminary recommendation of the ESIA report. None of the WTGs are near to water bodies and PP takes deliberate steps to ensure there no water holes around the WTGs.</p> <p>The project proponent actively takes regular feedback from local villagers about project and has also set up a grievance mechanism in place. There has been no reported bird death in the project vicinity.</p> <p>The impact of parameter is neutral as there is no impact observed during the current monitoring period. The DoE has been provided with details of observations.</p>
Means of verification:	The value for number of death in bird strike register or interview with local villagers.
Cross check mechanism	Not applicable

Relevant SDG outcome has been included in ER sheet and have been found correct.

During the interviews with PP, the verification team confirmed that there is a grievance book at project site. Every stakeholder has access to the grievance register and can lodge grievance any time. Same if any is resolved as per the standard operating procedures of the company. By checking grievance book submitted by PP, it was able to confirm there are no comments received from the local people for the present monitoring period. Local people are happy with the implementation of the project activity as it entrusts employment and improve living standard of local people and villagers.

Assessment team also checked the Indian domestic REC web site (<https://recregistryindia.nic.in/>) & International REC device registry

(<https://evident.services/device-register>) and confirms that the project is not undertaking any REC benefits at present nor intended to take it in near future.

Assessment team also checked the other registry like UNFCCC and VCS and found that project is not registered with both mechanisms.

Applus+ Certification conducted an interview with the project owner and local stakeholders please find the summary of the interview as below:

Sections	Debriefing
Trainings & salaries of the employees	During verification process Mr. Murali Krishnam Raju M, PP representative team was interviewed. It was noted that regular technical & nontechnical trainings were conducted and the salaries are in line with the industry standard.

In Summary, it is Applus+ Certification's opinion that the monitoring of the project owner regarding to sustainability is in line with requirement of the GS4GG guideline.

#### Summary of ex-post values of each SDG outcome for the current monitoring period

Item	Baseline estimate	Project estimate	Net benefit
<b>SDG 7: Affordable and Clean Energy</b>	0 MWh	38,362 MWh	38,362 MWh
<b>SDG 8: Decent Work and Economic Growth</b>	0 Training provided to O&M Staff 0 million INR spent on O&M 0 employment generation	15 Training provided to O&M Staff 27.75 million INR spent on Salaries 61 employment generation	No. of trainings conducted: 15 Salary given to the employees: 27.75 Million INR No. of employment opportunities created: 61
<b>SDG 13: Climate Action</b>	37,506 tCO <sub>2</sub> e	0 tCO <sub>2</sub> e	37,506 tCO <sub>2</sub> e

Comparison of actual value of outcomes with estimates in approved PDD

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
<b>SDG 7: Affordable and Clean Energy</b>	45,899 MWh	38,362 MWh
<b>SDG 8: Decent Work and Economic Growth</b>	01 Training provided to O&M Staff 61 employment generation	09 Training provided to O&M Staff 32,834,961 INR spent on Salary given to the employees 15 employment generation
<b>SDG 13: Climate Action</b>	44,876 tCO <sub>2</sub> e	37,506 tCO <sub>2</sub> e

### 3.6 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions

As a result of verification of the ER calculation process, the assessment team confirmed that all the parameters required for the determination of the emission reductions have been included in the Monitoring Report Version 01& Monitoring report Version 02and corresponding ER calculation spread-sheets and are consistent with the applied methodology ACM0002 Version 17.0 and the monitoring plan contained in the registered PDD. The parameters are complete in this monitoring period.

After verifying the reported figures with the raw data sources, it's confirmed that the values of the parameters from the raw data sources are consistent with those quoted in the Monitoring Report Version 01&Monitoring report Version 02and corresponding ER calculation spread-sheets. The verification process for the same has been clearly described in above section of the report. See below for the detailed data:

Baseline Emissions for the amount of electricity supplied by project activity, BE<sub>y</sub> is calculated as:

The baseline emission is using equation below:

$$BE_y = EG_{PJ, y} \times EF_{grid, CM, y}$$

$$BE_y = 38,362 \times 0.9777 = 37,506 \text{ tCO}_2\text{e (rounddown figure)}$$

Thus, the baseline value of each SDG outcome are summarised as follows;

Item	Baseline value
SDG 7: Affordable and Clean Energy	No Activities in the baseline
SDG 8: Decent Work and Economic Growth	No Activities in the baseline
SDG 13: Climate Action	Emission of 37,506tCO <sub>2e</sub>

#### **Project emissions:**

The project is a wind power project, no fossil fuel is be consumed according to the methodology ACM0002 Version 17.0& according to registered PDD, PE<sub>y</sub> = 0 tCO<sub>2e</sub>

#### **Leakage:**

As per ACM0002 Version 17.0, No leakage emission needs to be considered.

#### **Emission reductions:**

Thus, the emission reductions are:

$$ER_y = BE_y - PE_y$$

$$= 37,506 - 0 = 37,506 \text{ tCO}_2\text{e}$$

The amount of GS-VERs achieved during the present monitoring period are 16.4%lower than the estimated value in the PDD. This is due to the varying capacity utilization factors during the Non peak wind season and export outages due to the breakdowns. Same is not in control of project proponent. Thus, accepted by assessment team.

### **3.7 Management and Operational System**

The responsibilities of data measurement, collection, verifying, archiving etc. have been clearly defined in the registered PDD. The same practice is followed onsite and it is confirmed by the assessment team during the interviews with PP. The data related to ER calculation as well as data monitoring, collection process etc. have been internally reviewed by the management of the Monitoring team regularly. The responsibility of each function is consistent with the monitoring plan in the registered PDD.

The information flow of each parameter has been verified by the assessment team via interviewing with responsible personnel.

It's verified during the interviews with PP & document review, the monitoring procedure as well as the internal quality management and control procedures are stipulated in the PDD. The monitoring personnel have been interviewed by the assessment team and it's confirmed that the monitoring is implemented as per the procedure. Also, the training record has been checked by the assessment team and it is confirmed that the monitoring personnel are get sufficient train to perform the monitoring.

All the data and documents, either hard copies or soft copies, is kept for two years after the end of the last crediting period or the last issuance of GS CERs for this Project, whichever occurs later.

#### 4. REFERENCE

LIST OF DOCUMENTS	
S. No.	Document/Evidence/Reference/Web link, Version, Date
1.	Monitoring Report Version 01 dated 23/04/2021, Final Monitoring report version 02 dated 12/08/2021
2.	ER sheets Version 01 dated 23/04/2021 Final ER Sheets version 02 dated 12/08/2021
3.	Registered PDD Version 05 dated 22/03/2018, Final Validation Report – 8114363339 – 17/034 by TUV NORD, Dated 03/04/2018 Previous Verification Report (2 <sup>nd</sup> MP)- 8114363339 – 17/034 by ESPL, dated 05/05/2021
4.	ACM0002 Version 17.0 "Tool to calculate the emission factor for an electricity system"
5.	CDM validation and verification standard for project activities, Version 02.0
6.	GS4GG guideline
7.	Training records of the employees (both skilled/non-skilled)
8.	O&M policy
9.	Monthly reports issued by state utility and invoices raised by PP for the complete monitoring period
10.	Calibration certificates of the complete monitoring period
11.	Commissioning certificates for power plant
12.	Log book records for scheduled maintenance of the power plant for the complete monitoring period
13.	Sample work contract for both skilled and non-skilled manpower
14.	CSR report
15.	Grievance register
16.	HSE procedures
17.	Power purchase agreement
18.	O&M agreement
19.	Technical manual from the Manufacturer
20.	Employment records

## **5. FINAL VERIFICATION STATEMENT**

Applus+ Certification has been engaged by M/s Orange Bercha Wind Power Pvt. Ltd to perform the 3<sup>rd</sup> periodical verification of the “Wind Power Project in Madhya Pradesh by OBWPPL” (GS Ref. No.GS4962).

The management of M/s Orange Bercha Wind Power Pvt. Ltd is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project’s Monitoring Plan in the registered PDD and the applied methodology ACM002 Version 17.0.

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board and Gold Standard. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. A reasonable level of assurance has been achieved during this verification. The verification can confirm that:

- the project is operated as planned and described in the project design document and PDD approved by the EB and GS;
- the monitoring plan is as per the applied methodology;
- the monitoring in Monitoring Report is as per the PDD and the monitoring plan approved by the EB and GS;
- the development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

In our opinion, the GHG emission reductions for “Wind Power Project in Madhya Pradesh by OBWPPL” for the monitoring period 01/08/2020 to 31/12/2020 (Both days included) as reported in Monitoring Report, prepared on the basis of the project’s Monitoring Plan are fairly stated.

Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period: 01/08/2020 to 31/12/2020(Both days included)

Verified emissions in the above reporting period:

Leakage emissions	0 tCO <sub>2</sub> e equivalents
Project emissions	0 tCO <sub>2</sub> e equivalents
Baseline emissions	37,506 tCO <sub>2</sub> e equivalents
Emission reductions	37,506 tCO <sub>2</sub> e equivalents

Vintage wise breakup of verified emission reduction is given below:

<b>Year</b>	<b>Baseline emission (tCO<sub>2</sub>)<sup>2</sup></b>	<b>Project Emission (tCO<sub>2</sub>)</b>	<b>Emission Reduction (tCO<sub>2</sub>)</b>
Year 2020	37,506	0	37,506
<b>Total</b>	<b>37,506</b>	<b>0</b>	<b>37,506</b>

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<sup>2</sup>Rounddown values

**Date:** 27/08/2021


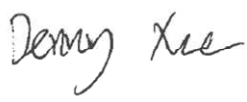
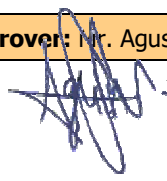
**Lead Auditor:** Dr. Atul Takarkhede

**Tech. Expert:** Dr. Atul Takarkhede

**Tech. Reviewer:** Mr. Denny Xue

**Approver** (*Applus+ Certification VVB Technical Manager*)

Mr. Agustín Calle de Miguel

ASSESSMENT TEAM	
<b>Lead Auditor:</b> Dr. Atul Takarkhede	<b>Technical Reviewer:</b> Mr. Denny Xue
Signature: 	Signature: 
<b>Approver:</b> Mr. Agustín Calle de Miguel	
Signature: 	

**Appendix 1: Corrective Action Request/Clarification Request/Forward Action  
 Request resolution table**

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	01
Raised by:	Atul Takarkhede	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	30/07/2021
<p>Following discrepancies observed during the review of monitoring report:</p> <ol style="list-style-type: none"> <li>1. Date of project design certification missing on the first page; Key Project Information of the MR. Corrective action sought.</li> <li>2. Table 2 of the MR not completed inline with guidelines to complete GS MR. Corrective actions sought.</li> <li>3. Alteration in template observed for section D.3 for parameter comparison table.</li> <li>4. PP requested to submit commissioning certificates, PPA, O&amp;M agreements and grievance records.</li> </ol>			
Project Participant's response		Date:	12/08/2021
<ol style="list-style-type: none"> <li>1. Date of project design certification is mentioned in the first page of MR.</li> <li>2. Table 2 of the ME is completed in line with the GS MR guidelines. Vintage values for all the SDG parameters are provided.</li> <li>3. Table D.3 is formatted as per the original format.</li> <li>4. Required documents are submitted</li> </ol>			
Documentation provided as evidence by Project Participant			
<ol style="list-style-type: none"> <li>1. PPA</li> <li>2. Commissioning certificates</li> <li>3. O&amp;M agreement</li> <li>4. Bird hit register</li> </ol>			
Auditor's assessment comment		Date:	24/08/2021
<ol style="list-style-type: none"> <li>1. All missing information is correctly mentioned in the revised GS4GG MR v.02 dated 12/08/2021 and found in line with the registered PDD. Hence accepted and <b>CAR is closed.</b></li> <li>2. Rectified table 2 is provided in revised GS4GG MR. Same is found inline with the guidelines to complete GS4GG MR template. Hence accepted and <b>CAR is closed.</b></li> <li>3. Corrected Table D.3 is used in revised MR. same found inline with the guidelines to complete GS4GG MR template. Hence accepted and <b>CAR is closed.</b></li> <li>4. PP has submitted following document to the assessment team: -             <ol style="list-style-type: none"> <li>a. Power Purchase Agreement between M/s Orange Bercha Wind Power Pvt. Ltd. and M/s Madhya Pradesh Power Management Company Ltd. dated 10/02/2017.</li> <li>b. Commissioning Certificate issued by Madhya Pradesh Power Transmission Company Limited, Ref no. SE/T&amp;C/UJN/UB/233 dated 05/05/2016</li> <li>c. Copy of grievance and O&amp;M agreement</li> </ol>             Above documents found consistent with revised GS4GG MR. hence accepted and <b>CAR is closed</b> </li> </ol>			

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	02
Raised by:	Atul Takarkhede	Ref. to checklist in above tables:	3.5
Description of the audit finding		Date:	30/07/2021
PP have submitted JMR & invoices for the project activity and net electricity export values found correct.			

Type:	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	02
Raised by:	Atul Takarkhede	Ref. to checklist in above tables:	3.5
<p>However, PP requested to submit evidenced for all SDG 8 parameters and safeguarding principles monitoring parameters /indicators Bird &amp; Bat Deaths, Landscape Modification and Soil, Erosion and/or Water Body Instability etc.</p>			
Project Participant's response		Date:	12/08/2021
<p>Required documents are submitted for all the SDG parameters.</p> <p>Except bird mortality and grievance handling rest of the safeguarding principles Landscape Modification and Soil, Erosion and/or Water Body Instability etc. Are monitored through the interview with maintenance staff. Hence no recorded evidence is maintained which is inline with the monitoring plan reported in the GS4GG transition annex.</p> <p>Project O&amp;M team maintain the grievance record form at the project site and local panchayat office to be made available for local villages to report their complaint or grievance if any regarding the project operation. Whenever any grievance reported it will be immediately addressed at the earliest. During the monitoring period no grievances are reported for this project activity. however, grievance form template is submitted to VVB for verification. Similarly, bird strike register is maintained at the project site to report any bird strike or bird death due to the project operation. Project O&amp;M team reports the incident in the bird strike template whenever the incident happened. No bird strike was reported during the monitoring period.</p>			
Documentation provided as evidence by Project Participant			
<ol style="list-style-type: none"> <li>1. For SDG7 &amp; ADG 13- JMR and Invoices are already submitted</li> <li>2. SDG-8 (O&amp;M contract, sample Employment records and training records)</li> <li>3. SGP 4.3.10- Bird hit register</li> <li>1. SGP 3.4.2- Grievance register</li> </ol>			
Auditor's assessment comment		Date:	24/08/2021
<p>PP has submitted following documents in support of all Monitoring parameters: -</p> <ol style="list-style-type: none"> <li>1. Copies of all JMRs and Invoices (relevant to current monitoring period)</li> <li>2. Employees Attendance sheet</li> <li>3. Training MOMs and Attend and Attendance sheet</li> <li>4. Copy of Bird hit register</li> <li>5. Copy of grievance register</li> </ol> <p>During Review of all above documents, Assessment team found all parameters value mentioned in the revised MR is consistent with the supporting. Also Revised ER sheet found consistent with JMRs and invoice. Thus, accepted and <b>CAR is closed.</b></p>			

*Following FARs have been raised by Sustain Cert during performance review of the previous verification:*

Type:	<input type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input checked="" type="checkbox"/> FAR	Number:	01
Raised by:	Sustain Cert	Ref. to checklist in above tables:	NA
Description of the audit finding		Date:	30/07/2021
<p>Following FAR have been raised by Sustain Cert:</p> <p>FAR # 1: As per 5.1.39 of GS4GG Principles and Requirements, an annual report shall be submitted for each monitoring year by end of next calendar year for which verification is not completed. All the required information as stated in Annual Report shall be provided.</p>			
Project Participant's response		Date:	12/08/2021
<p>Last annual report date 02/07/2020 was submitted to GS4GG for the delayed verification period. Annual report for the further period is not required to submit since this monitoring period covered from 01/08/2020 to 31/08/2020 without any delay from the previous verification.</p>			

Documentation provided as evidence by Project Participant		
NA		
Auditor's assessment comment	Date:	24/08/2021
As per PP response and desk review, assessment team found no delay in between the current and previous verification period. Thus, no need to submit annual report for the same. Hence accepted and <b>FAR is closed.</b>		

Type:	<input type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input checked="" type="checkbox"/> FAR	Number:	02
Raised by:	Sustain Cert	Ref. to checklist in above tables:	
Description of the audit finding	Date:	30/07/2021	
Following FAR have been raised by Sustain Cert: FAR # 2: At the time of next verification PP shall upload supporting evidence/receipt on SC app for the waste oil that was disposed of to a CPCB/SPCB authorized vendor.			
Project Participant's response	Date:	12/08/2021	
Hazardous waste inventory and its disposal records are submitted.			
Documentation provided as evidence by Project Participant			
Hazardous waste inventory and its disposal records with authorized vendor are submitted.			
Auditor's assessment comment	Date:	24/08/2021	
PP has submitted hazardous waste inventory and its disposal records to the assessment team. During review, team found consistent with the project activity. Hence accepted and <b>FAR is closed.</b>			

**Appendix 2: Calibration details of monitoring meters**

Connected Feeder	Meter Type	Meter Serial Number	Latest Calibration	Due Date	Compliance
Feeder 1 and 2	Main Meter	XC576471	11/10/2021	10/10/2024	Yes
	Check Meter	XC576472	11/10/2021	10/10/2024	Yes

**Appendix 3: Audit Team CVs**

Name	SHORT CV. BACKGROUND INFORMATION
Dr. Atul Takarkhede	<p><b>Dr. Atul Takarkhede</b> is Ph.D. (Environmental Sciences) from Institute of Science, RTM Nagpur University, Nagpur, and he has already published different technical papers related to environmental sciences.</p> <p>He counts with more than 11 years of experience in field of Environmental Auditing, consulting and accreditation. He is an expert in ISO 9001-14001, CO2/GHG Reporting, Carbon Foot Print, Energy, Water and Waste Management reporting for organizations' environmental performance.</p> <p>His professional portfolio is mainly related with carrying out EIA, conducting QA/QC of EIA Reports; conducting environmental/water audits; NABET requirements appliance, functional area expert in Water Pollution &amp; Solid &amp; Hazardous Waste management among others.</p> <p>Furthermore, he counts with solid experience on CDM-VCS-GS consultancy and auditing. Currently he is associated with True Quality Certifications Private Limited and empanelled with Applus+ Certification to carry out GHG audits in the aforementioned schemes.</p>
Mr. Denny Xue	<p>Mr. Denny Xue (Master's Degree in Environmental Engineering, Bachelor's Degree in Thermal Engineering) is an Auditor appointed by Applus+ LGAI for the GHG project assessment, auditing and technical review. He has more than 6 years of work experience in CDM/GS4GG/VCS project assessment and technical review with Applus+. Before he joined Applus+ LGAI, he has been working for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development.</p>