

**GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG)
REPORT
-
DESIGN CERTIFICATION (VALIDATION)**



Project Title: Mandsaur Wind Power Project in Madhya Pradesh
GS project ID: GS11402
Internal ID: TQC 30221
Customer: ReNew Wind Energy (MP Two) Private Limited
Date: 22/07/2023
Revision: 03

SUMMARY				
Reference No.		Date (first version)	Version No.	Date (last version)
TQC 30221		11/09/2022	03	22/07/2023
Client	ReNew Wind Energy (MP Two) Private Limited			
Project Title	Mandsaur Wind Power Project in Madhya Pradesh			
Project Participants	ReNew Wind Energy (MP Two) Private Limited			
Project Location	The project is located in Madhya Pradesh state of India			
Contact Person	Mr. Ishan Nagpal			
GS Version: GS4GG Principles and Requirements - Version 1.2 GS4GG Activity Requirements: RE Activity Requirements - Version 1.4 Applied Methodology Version: ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0 Current Methodology Version: ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0		GS4GG Principles and Requirements V 1.2 GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 1 Technical Area: 1.2		
First PDD Version: 02 Date: 15/06/2022		Final PDD Version: 05 Date: 21/07/2023		
Estimated Annual Average SDG Impact:				
Sustainable Development Goals		SDG Impact	Estimated Annual Average	
13 Climate Action		GHG Emission Reduction	56,481 tCO ₂ e(GSVER) for first crediting period 55,160 tCO ₂ e for second crediting period	
7 Affordable and Clean Energy		Clean Electricity supplied to grid	59,280 MWh for first crediting period 59,280 MWh for second crediting period	
8 Decent Work and Economic Growth		employments created	10 employments for first crediting period 10 employments for second crediting period	
		Trainings conducted	01 Training for first crediting period 01 Training for second crediting period	
Selected Sustainable Development Goals (SDGs): 7; 8; 13				
Design Certification Summary				
LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by ReNew Wind Energy (MP Two) Private Limited to perform the GS VER validation for transition and renewal				

of crediting period of “Mandsaur Wind Power Project in Madhya Pradesh” applying the methodology ACM0002 Version 20.0.

The management of ReNew Wind Energy (MP Two) Private Limited is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

A desk review and a physical site visit have been conducted to verify the data submitted in the GS4GG PDD. Applus+ Certification confirms the following have been reviewed:

- The GS4GG PDD;
- The applied monitoring methodology;
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board;
- GS4GG guidelines & Requirements.
- All information and references relevant to the project activity’s resulting in estimated emission reductions.

The scope of the validation is defined as an independent and objective review of the project design document, against the Kyoto Protocol requirements, UNFCCC rules, applicable CDM requirements and requirement of Gold Standard. The validation report is finalized based on the assessment of the Gold Standard GS4GG PDD and applying standard auditing techniques including but not limited to document reviews, follow up actions (e.g., site visit, telephone or e-mail interviews) and also the review of the applicable approved methodology and underlying formulae and calculations.

The report and the annexed validation checklist describe a total of 19 findings which include:

- 10 Corrective Action Requests (CARs);
- 00 Clarification Requests (CLs/CRs);
- 09 Forward Action Requests (FARs).

The PP has responded these findings by modifying the Gold Standard PDD and providing adequate additional explanations and evidences. Applus+ Certification confirms that all the findings have been “closed out” before submitting the request for registration to GS board.

As a summary of the validation, the review of the Gold Standard GS4GG PDD and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence for the determination of the project’s fulfillment with all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and requirement of Gold Standard. Therefore, Applus+ Certification recommends the project for registration by the GS Registry as GS VERS project.

ASSESSMENT TEAM		
Team Members	Type of Resource ¹	Organization (for OEs)
Lead Auditor: Mr. Pankaj Kumar	☐ IR ☐ EI ☒ OE	M/s True Quality Certifications Private Limited
Auditor: NA	☐ IR ☐ EI ☐ OE	NA
Technical Expert: Mr. Pankaj Kumar	☐ IR ☐ EI ☒ OE	M/s True Quality Certifications Private Limited
Technical Reviewer: Mr. Simon Shen	☐ IR ☒ EI ☐ OE	-

¹ IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

ABBREVIATIONS	
AMS	Approved Methodology Small Scale
Applus+ LGAI / Applus+	LGAI Technological Center, S.A. (Applus+ Certification)
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CL / CR	Clarification Request
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CTE	Consent to Establish
CTO	Consent to Operate
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non-Governmental Organization
OM	Operational Margin
PP	Project Participant
PS	Project Standard
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	CDM validation and verification standard for project activities, Version 03.0

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Appendix:

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

Appendix 2: Audit Team CVs.

1. INTRODUCTION

ReNew Wind Energy (MP Two) Private Limited has commissioned Applus+ Certification to perform a validation of transition and renewal of crediting period of the project titled "Mandsaur Wind Power Project in Madhya Pradesh by ReNew Wind Energy (AP3) Private Limited " (hereafter referred to as the project activity) in the Madhya Pradesh state of India. This validation report summarizes the findings of the validation of transition and renewal of crediting period of the project, performed on the basis of UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM Executive Board as well as requirement of Gold Standard GS4GG guideline.

The main purpose of the project activity is to generate electrical energy through sustainable means using wind power resources, the generated green electricity will contribute to climate change mitigation efforts. This project activity is a large-scale Wind project.

ReNew Wind Energy (AP3) Private Limited is setting up wind power project at Madhya Pradesh state of India with total capacity of 36 MW. During registration of the project on UNFCCC CDM mechanism, investor planned 55.2 MW of project capacity. However, 36 MW of capacity has been commissioned till date . The purpose of the project activity is to generate electrical power through operation of wind power plant.

The project will replace anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 56,481 tCO₂e per year for First Crediting Period(01/04/2016 to 31/03/2021) and 55,160 tCO₂e per annum for Second Crediting Period(01/04/2021 to 31/03/2026), thereon displacing 59,280 MWh/year amount of electricity from the generation-mix of power plants connected to the Indian electricity grid, which is mainly dominated by thermal/ fossil fuel-based power plant.

The project activity is the installation of a new grid-connected renewable power plant/unit and this is a CPA that had been registered as CDM PoA² . No verification of this project had been done under CDM.

The details of the WTGs & commissioning mentioned in the table:

Sl.No.	WTG ID	Service Location No.	WTG Capacity (MW)	Date of Commissioning
1	MAN_2	RWEMS-01	0.8 MW (each)	30/09/2015
2	MAN_4	RWEMS-02		30/09/2015
3	MAN_5	RWEMS-03		30/09/2015
4	MAN_6	RWEMS-04		30/09/2015
5	MAN_7	RWEMS-05		30/09/2015
6	MAN_8	RWEMS-06		30/09/2015
7	MAN_9	RWEMS-07		30/09/2015
8	MAN_10	RWEMS-08		30/09/2015
9	MAN_11	RWEMS-09		30/09/2015
10	MAN_12	RWEMS-10		30/09/2015

² [CDM: Mandsaur Wind Power Project in Madhya Pradesh \(unfccc.int\)](http://cdm.unfccc.int)

11	MAN_13	RWEMS-11	30/09/2015
12	MAN_14	RWEMS-12	30/09/2015
13	MAN_15	RWEMS-13	30/09/2015
14	MAN_16	RWEMS-14	30/09/2015
15	MAN_17	RWEMS-15	30/09/2015
16	MAN_18	RWEMS-16	30/09/2015
17	MAN_19	RWEMS-17	30/09/2015
18	MAN_20	RWEMS-18	30/09/2015
19	MAN_21	RWEMS-19	31/10/2015
20	MAN_22	RWEMS-20	31/10/2015
21	MAN_23	RWEMS-21	31/10/2015
22	MAN_24	RWEMS-22	31/10/2015
23	MAN_25	RWEMS-23	31/10/2015
24	MAN_26	RWEMS-24	31/10/2015
25	MAN_27	RWEMS-25	31/10/2015
26	MAN_28	RWEMS-26	31/10/2015
27	MAN_29	RWEMS-27	31/10/2015
28	MAN_30	RWEMS-28	31/10/2015
29	MAN_31	RWEMS-29	31/10/2015
30	MAN_32	RWEMS-30	31/10/2015
31	MAN_33	RWEMS-31	31/10/2015
32	MAN_34	RWEMS-32	28/12/2015
33	MAN_35	RWEMS-33	28/12/2015
34	MAN_36	RWEMS-34	28/12/2015
35	MAN_37	RWEMS-35	28/12/2015
36	MAN_40	RWEMS-36	28/12/2015
37	MAN_38	RWEMS-37	27/03/2017
38	MAN_39	RWEMS-38	27/03/2017
39	MAN_41	RWEMS-39	27/03/2017
40	MAN_42N	RWEMS-40	27/03/2017
41	MAN_43	RWEMS-41	27/03/2017
42	MAN_44	RWEMS-42	27/03/2017
43	MAN_45	RWEMS-43	27/03/2017
44	MAN_46	RWEMS-44	27/03/2017
45	MAN_56	RWEMS-45	27/03/2017

1.1 Objective

The purpose of a validation is to have an independent third-party assessment of the GS4GG PDD and compliance with the GS requirements as described in the Gold Standard documentation and

supporting documents by the client. Validation is part of the GS VER project cycle and will finally result in a conclusion by Applus+ Certification whether a project activity is valid and should be submitted for registration of a proposed project activity rests at the GS and the Parties involved.

1.2 Scope

The validation scope for the transition and renewal of crediting period for the project is defined as an independent and objective review of the project PDD, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against all applicable CDM and GS requirements including the approved baseline and monitoring methodology ACM0002 Version 20.0. The validation was based on the requirements in the CDM validation and verification standard for project activities, Version 03.0 for the project activity and Gold Standard GS4GG requirement.

The validation is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the PDD.

2. METHODOLOGY

The project assessment is based on the CDM validation and verification standard for project activities, Version 03.0 for the project activity, Gold Standard requirement for GS4GG and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the project activity are appointed. Once the project is made available for Applus+ LGAI, the members of the assessment team carried out:

1. A desk review of the GS4GG PDD;
2. Follow-up interviews with project stakeholders;
3. The resolution of outstanding issues and the issuance of the final validation report and opinion.

The prepared validation report and other supporting documents then undergo an internal quality control before being submitted to the GS Registry.

The GS overview documents which is referred as DVR is as below

Validation Checklist Table 3: Resolution of Audit Findings			
Type:	☐ CAR	☐ CL/CR	☐ FAR
Number:			
Raised by:		Ref. to checklist in table 1&2:	
Description of the audit finding	Date:		
The description of the audit finding should be clearly included here.			
Project Participant's response	Date:		
The responses given by the project participants during the communications with the validation team should be included here.			
Documentation provided as evidence by Project Participant			
The evidences provided by the project participants should be included here.			
Auditor's assessment comment	Date:		

This section should include how the audit finding is assessed by the assessment team.

The Complete List of CAR/CL/FAR is included as Appendix 1 of this report

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.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Mr. Pankaj Kumar	LA/TE	YES	YES	YES	YES
Mr. Simon Shen	TR	YES	YES	YES	NA

The complete list of CVs is included as Appendix 2 of this report.

2.2 Document review

The Gold Standard PDD submitted by the Client was reviewed against the approved methodology and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done. A complete list of all documents and evidence material reviewed is included in Reference 4 to this report.

2.3 Follow up Interviews

Interviewed Personnel	Functions	Organization
Mr. Parag Sharma	Project Incharge	ReNew Wind Energy (MP Two) Private Limited
Mr. Dilip Singh	Site Person	ReNew Wind Energy (MP Two) Private Limited
Mr. Pradeep Lohar	Site Person	ReNew Wind Energy (MP Two) Private Limited

Mr. Shashank Tiwari	Local Villager (Stakeholder)	NA
Mr. Arun Kumar	Local Villager (Stakeholder)	NA

Assessment team interviewed the local stakeholder and confirmed that there is no grievance resulted from the project activity in and out of the project location. The stakeholder confirmed that the project resulted in employment and improves lifestyles of the personal/families in the nearby villages. (Discussion with Stakeholder)

Assessment team asked following queries to the stakeholders during the validation site visit and concludes that stakeholders are overall happy with the implementation of the project activity.

Name of the stakeholder	Mr. Shashank Tiwari
Occupation	Villager
DOE QUESTION: Did PP provided employment opportunity to locals? 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. VVB 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. VVB also found that skilled local persons were also employed by the organization for the operation and maintenance of the power plant.	

Name of the stakeholder	Mr. Arun Kumar
Occupation	Local stakeholder
VVB questions: Did the power plant have any harmful impact on farming or vegetations? Answer: NO. The plant is implemented in barren land and there were no any fertile land or crop which is damaged.	

VVB team had interviewed 10+ local stakeholder during onsite visit. However, in validation report, VVB team reflected the stakeholder's representatives' names.

The details of site visit is as below:

Duration of site visit				
No.	Activity performed on-site	Site location	Date	Team member
1.	Assessment team checked the implementation of the project, Baseline emission, Emission reduction calculation, technical description of the project and Monitoring. Assessment team interviewed the local stakeholder and confirmed that there is no grievance resulted from the project activity in and out of the project location. The stakeholder confirmed that the project resulted in employment and improves lifestyles of the personal/families in the nearby villages. (Discussion with Stakeholder)	Village: Rewas Devda & Surrounding area District: Mandsaur State: Madhya Pradesh	11/07/2022 and 12/07/2022	Mr. Pankaj Kumar

2.4 Resolution of Clarification and Corrective Action requests

The objective of this phase of the validation was to resolve the requests for corrective actions and clarification and any other outstanding issues which needs to be clarified for Applus+ Certification positive conclusion on the PDD. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the validation process, the concerns raised and responses given are summarized in Appendix 1 below.

The Gold Standard GS4GG PDD version 05 submitted on 21/07/2023 serves as the basis for the final assessment presented.

2.5 Internal Quality Control

As final step of a validation the final documentation including the validation report and the protocol have to undergo an internal quality control by the technical review committee. Each report has to be finally approved either by the head of technical review committee or the deputy. In case one of these two persons is part of the audit team, approval can only be given by the other one.

After confirmation of the PP the validation opinion and relevant documents are submitted to the GS Registry.

3. PROJECT DESIGN CERTIFICATION ASSESSMENT

3.1 Approval

This section is not applicable as this is a GS VER project.

3.2 Participation

The project participants are ReNew Wind Energy (MP Two) Private Limited as the project proponent from the host party India. The host country involved is parties to the Kyoto Protocol and meet and requirements to participate in the Gold Standard.

3.3 Scale of the project

The project activity is identified as a large-scale project in section A.4 applying a large-scale methodology ACM0002 Version 20.0 for First and Second Crediting Period. The total capacity of the power project is 36 MW as validated during the interviews with PP and documents review like commissioning certificates and PPA/O&M agreement. Since the design capacity of the project activity is more than 15 MW, which is stipulated limit for large scale projects by GS/CDM, the project is correctly classified as large-scale project. Assessment team also checked the requirement of applicable methodology and found that ACM0002 Version 20 has been applied for transition and renewal of second crediting period. Hence, assessment team confirms that the project qualifies the requirement of the latest methodology also (i.e., scale, applicability, baseline, additionality and monitoring).

- S)** Type of project: The project activity involves electricity generation using wind power to reduce atmospheric CO₂ emission by replacing equivalent amount of electricity from the grid of India. The project type is identified as renewable energy project in section A.4 of the GS4GG PDD. The project activity complies with the requirement of 'the generation and delivery of energy services (e.g., electricity) from non-fossil and non-deployable energy sources' as defined in GS4GG toolkit. The project activity generates and supplies renewable electricity to the regional grid thereby displacing the electricity which would have generated in fossil fuel-based power plants connected to the grid.

General Eligibility Criteria under GHG Emissions Reduction & Sequestration Product Requirements v.2.1:

Assessment team reviewed the general eligibility criteria under para 9.1.2 of GHG Emissions Reduction & Sequestration Product Requirements v.2.1 and found that criteria appropriately provided & justified in the Section A.4 of the GS PDD and exceeding small scale threshold limit for capacity.

General Eligibility Criteria under Renewable Energy Activity Requirements:

Assessment team reviewed the general eligibility criteria under Renewable Energy Activity Requirements, version 1.4 and found that criteria appropriately provided & justified in the Section A.1.1 of the GS PDD.

Additional Eligibility Criteria for Hydropower project activities:

The project activity is 36 MW Wind power project and Annex A of the Activity Requirements for Renewable Energy Projects, version 1.4, not applicable.

3.4 Greenhouse Gases

The project activity leads to displacement of electricity generation from fossil fuel-based power plants connected to the regional grid by renewable energy generated using wind power. The operation of the project activity will result in reduction of carbon-dioxide from the atmosphere

due to displacement of electricity in grid by the renewable energy. Hence, the greenhouse gas identified in the PDD is carbon dioxide which is duly validated by the VVB.

The GHG emission sources considered for the project boundary and their explanations are as follows:

	Source	GHGs	Included?	Justification/Explanation
Baseline scenario	Grid connected electricity generation.	CO ₂	Yes	Main emission source
		CH ₄	No	Minor emission source
		N ₂ O	No	Minor emission source
Project scenario	Greenfield Wind power Project Activity.	CO ₂	No	No CO ₂ emissions are emitted from the project
		CH ₄	No	Project activity does not emit CH ₄
		N ₂ O	No	Project activity does not emit N ₂ O

3.5 Project timeframe

- **Other certification scheme:** The project activity has not applied, confirmed by project developer, for any other certification like Green or White certification. Therefore, the validation team concluded that the project activity meets the applicability criteria of Gold Standard. Assessment team checked the double counting clarification vide GS guideline on double counting in the context of Green Certificate Schemes, 22/01/2015. A declaration dated 18/07/2022 from project developer confirms that the project activity is not taking any REC Benefits under REC mechanism. The project is applied for GS VER validation. Assessment team also checked the REC web site (<https://recregistryindia.nic.in/>) and confirms that the project is not undertaking any REC benefits at present nor intended to take it in near future. Also, assessment team checked the VCS Registry/Project pipeline and found that project activity is not applied for this scheme Further, project is also not applied for any VCS, I-REC Device Registry etc. PP has provided undertaking that they will avoid double counting and not intended to seeking registration under other GHG schemes.

3.6 Project Boundary

As per ACM0002 Version 20.0 – “The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the CDM/GS project power plant is connected to”.

The project boundary includes the Wind power project, sub-stations, grid and all power plants connected to grid. The project activity will evacuate power to the INDIAN grid. Therefore, the entire INDIAN grid and all connected power plants have been considered in the project boundary for the proposed GS project activity. The same is checked by the assessment team during the validation site visit and found correct. VVB also confirms that the project activity complies with the requirement of project boundary in ACM0002 Version 20.0. ACM0002, Version 20.0 is the latest applicable methodology available to the project participant.

3.7 Baseline Identification

First Crediting Period:

As this project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario for the project as per the applied methodology, ACM 0002, version 20 is defined as below:

Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in TOOL07: Tool to calculate the emission factor for an electricity system"

Second Crediting Period:

Assessment team referred "Methodological tool (EB 66, Annex 47) "Assessment of the validity of the original / current baseline and update of the baseline at the renewal of the crediting period." (Version 03.0.1)" and "CDM validation and verification standard for project activities, version 03.0" to check the originality of the baseline. Following are the observations of the assessment team regarding selected baseline for the project activity in first and second crediting period:

This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period, as required by paragraph 283 to 286 of Project Standard version 03.0.

The tool stipulates the following steps to be carried out.

Step 1: Assess the validity of the current baseline for the next crediting period

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

The baseline scenario remains unchanged and is in compliance with all the relevant mandatory national and/or sectoral policies.

Step 1.2: Assess the impact of circumstances

The baseline scenario identified at the validation of the project activity is the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid connected power plants and by the addition of new generation sources into the grid. Thus this project activity was a voluntary investment which intends to replace equivalent amount of electricity at grid from renewable source. PP was not bound to incur this investment; hence absence of project activity (i.e. the investment) does not lead to any continued baseline practice for PP within their scope whereas the continued operation of the project activity continues to replace equivalent amount of electricity at grid. The same baseline as identified in the first crediting period is still valid for renewal for second crediting period of the project.

Nevertheless, there is an impressive growth attained by the Indian Power Sector within the recent years, the installed capacity has grown from mere 1,713 MW in 1950 to 356,100.20 MW as on 31.03.2018, consisting of 226,279.34 MW Thermal, 77,641.63 MW Renew and 6,780 MW Nuclear. Sector-wise details of installed capacity are shown in Table 1. However, it is evident from table below that the installed capacity is predominantly coal based and therefore, is a major source of carbon dioxide emissions in India. Hence, there exists scope for reducing the CO₂ emissions in the country by increased use of renewable energy sources.

Furthermore, project participant has considered the latest available CO₂ Baseline Database (CEA database, version 17) at the time of requesting renewal of the crediting period for establishing the baseline emission factor, which itself considered all the new circumstances. Hence, the new circumstances do not have an impact on the baseline emission.

Thus, current baseline remains same and there is no impact if circumstances, existing at the time of requesting renewal of crediting period.

Step 1.3: Assess whether the continuation of the use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested

As explained in step 1.2, the baseline scenario was the electricity import/generation from the power plants connected to the electricity grid. The project activity in green field project and there is no any baseline equipment or investment involved in project activity. Therefore, this condition is not applicable to the project activity.

Step 1.4: Assessment of the validity of the data and parameters

This step stipulates that "Where emission factors, values or emission benchmarks are used and determined only once for the crediting period, they should be updated, except if the emission factors, values or emission benchmarks are based on the historical situation at the site of the project activity prior to the implementation of the project and cannot be updated because the historical situation does not exist anymore as a result of the GS4GG project activity."

In the context of the present project activity the emission factor has been updated along with the approach used to calculate the emission factor.

Step 2: Update the current baseline and the data and parameters

As evident from the explanation provided above the baseline scenario remains unchanged. Only the approach used to calculate the baseline emission factor is updated as per the latest version of CEA database available at the time of PDD submission for renewal.

In line with the project standard version 03.0, the impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant EB guidance with regard to renewal of the crediting period at the time of requesting renewal of crediting period; and the correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period

Impact of the national and/or sectoral policies and circumstances upon the baseline scenario of the project activity

The Government of India enacted the Electricity Act in the year 2003 to harmonize and rationalize the provisions in the existing laws. The Act consolidated the laws relating to generation, transmission, distribution, trading and use of electricity. With the Enactment of the act, the then existing laws viz, The Indian Electricity Act 1910, The Electricity Supply Act, 1948 and The Electricity Regulatory Commissions Act, 1998 were repealed. The Electricity Act 2003 was in force at the time of the completion of the baseline study for the PDD.

Section 3 of the said act required the Central Government to prepare the national electricity policy and tariff policy, in consultation with the State Governments and the Authority for development of the power system based on optimal utilization of resources such as coal, natural gas, nuclear substances or materials, hydro and renewable sources of energy. In accordance with the section 3 of the Electricity Act 2003, the Central Government notified the National Electricity Policy on 12/02/2005 which was in force at the time of completion of the baseline study as stated in the PDD of the project activity. This policy has not been revised since then and is currently in force as well.

In addition to the above policies, State Electricity Regulatory Commissions (SERCs) have announced preferential tariffs and Indian Renewable Energy Development Agency (IREDA) provides term loan assistance towards establishing biomass power projects. All these fiscal and financial incentives were in force at the time of completion of the baseline study for the PDD of the project activity and still continue to exist.

The state electricity regulatory commission issues tariff order in respect of procurement of power generated from renewables and there is no mandatory national and/or sectoral policies have come into effect that would affect the compliance of the current baseline. Hence, it can be concluded the current baseline complies with all relevant mandatory national and/or sectoral policies that have come into effect after the submission of the project activity for validation and are applicable at the time of requesting renewal of the crediting period.

However, in spite of the financial incentives given by the government to renewable power projects in India the generation from the low cost must run resources connected to the Indian Grid has not increased to such an extent that this would lead to more than 50% contribution from the low cost must run resources towards the total generation from the Indian Grid.

The approved large-scale methodology for Grid connected electricity generation from renewable sources, ACM0002 (Version 20), has been used to determine the baseline and the estimation of emission reductions for the applicable crediting period. As referred in the methodology "Tool to calculate the emission factor for an electricity system" (version 07.0) has been used to determine continued validity of the baseline based on combined margin (CM) calculations.

As per latest CEA database, the fossil fuel dominated electricity is more than renewable sector and is continuing with same pattern. In light of the above discussion, it is to be concluded that in accordance with relevant guidelines stipulated in the Project Standard version 03.0, national and/or sectoral policies and circumstances had been considered towards formulating the OM & BM baseline scenario. Hence the baseline scenario as applied for the present project activity remains justified.

As per the approved large scale methodology for Grid connected electricity generation from renewable sources, ACM0002 (Version 20) Para 22 "If the project activity is the installation of a Greenfield power plant, the baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the "Tool to calculate the emission factor for an electricity system". The project activity involves setting up of wind project to produce electricity and supply to the grid. In the absence of the project activity, the equivalent amount of power would have been supplied by the Indian grid, which is fed mainly by fossil fuel fired plants.

The combined margin ($EF_{grid,CM,y}$) is the result of a weighted average of two emission factor pertaining to the electricity system: the operating margin (OM) and build margin (BM). Calculations for this combined margin must be based on data from an official source (where available) and made publicly available. The CEA database version 17 is the latest available data at the time of PDD submission to VVB for validation, hence same is considered for emission factor calculations for second crediting period. For, first crediting period, CEA Database 07.0 has been used to calculate combined margin emission factor since the same has been used for the same project registered in UNFCCC CDM mechanism.

The combined margin of the Indian grid used for the project activity is as follows:

First Crediting Period:

For First Crediting Period, PP has used the same emission factor for this transition project that used in CDM Project and the emission factor is shown below:

Parameter	Value	Nomenclature	Source
EF _{grid,CM,y}	0.9528 tCO ₂ /MWh	Combined margin CO ₂ emission factor for the project electricity system in year y	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Baseline CO ₂ Emission Database, Version 7.0, published by Central Electricity Authority (CEA), Government of India on January 2012.
EF _{grid,OM,y}	0.9842 tCO ₂ /MWh	Operating margin CO ₂ emission factor for the project electricity system in year y	Calculated as the last 3-year (2008-09, 2009-10, 2010-11) generation-weighted average, sourced from Baseline CO ₂ Emission Database, Version 7.0, published by Central Electricity Authority (CEA), Government of India on January 2012.
EF _{grid,BM,y}	0.8588 tCO ₂ /MWh	Build margin CO ₂ emission factor for the project electricity system in year y	Baseline CO ₂ Emission Database, Version 7.0, published by Central Electricity Authority (CEA), Government of India on January 2012.

Second Crediting Period:

PP has used emission factor as per CEA Database, Version 17. 0, which was the latest database during submission of PDD to VVB. The emission factor is shown below:

Parameter	Value	Nomenclature	Source
EF _{grid,CM,y}	0.9305 tCO ₂ /MWh	Combined margin CO ₂ emission factor for the project electricity system in year y	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Baseline CO ₂ Emission Database, Version 17.0, published by Central Electricity Authority (CEA), Government of India
EF _{grid,OM,y}	0.9522 tCO ₂ /MWh	Operating margin CO ₂ emission factor for the project electricity system in year y	Calculated as the last 3-year (2018-19, 2019-20, 2020-21) generation-weighted average, sourced from Baseline CO ₂ Emission Database, Version 17.0, published by Central Electricity Authority (CEA), Government of India
EF _{grid,BM,y}	0.8653 tCO ₂ /MWh	Build margin CO ₂ emission factor for the project electricity system in year y	Baseline CO ₂ Emission Database, Version 17.0, published by Central Electricity Authority (CEA), Government of India

3.8 Eligibility Principles Assessment

- **Principle 1. Contribution to Climate Security & Sustainable Development**

The baseline scenario and the emission reduction calculations have been performed as per the requirement of the methodology for the both the crediting periods. Version 20.0 of ACM 0002 has been used for the first crediting period and second crediting period. The emission factor of grid, in the GS4GG PDD, has been calculated in-line with the provisions of the respective versions of the applied methodology ACM0002 for both the crediting periods. The latest applicable version of "Tool to calculate the emission factor for an electricity system" is version 07.0 for first and second crediting period.

The applicability criteria are now detailed out in the report as below:

Applicability 1: Assessment team checked that the project activity is installation of a new grid connected wind power plant/ unit at a site where no renewable power plant was operated prior to the implementation of the project activity (Greenfield plant) and hence this criterion is applicable.

Applicability 2: Assessment team checked that the proposed project activity is an installation of a new grid connected wind power plant/ unit and hence criteria under point (a) is met. The project does not involve any capacity additions, retrofits or replacements and therefore this criteria under point (b) is not applicable.

Applicability 3: Assessment team checked that the proposed project activity is an installation of a new grid connected wind power plant/ unit and not Hydro power plant, therefore this criteria is not applicable for this project activity.

Applicability 4: Assessment team checked that the proposed project activity is an installation of a new grid connected wind power plant/ unit and not Hydro power plant, therefore this criteria is not applicable for this project activity.

Applicability 5: Assessment team checked that the project activity is installation of a new grid connected wind power project/ unit and does not involve switching from fossil fuel to renewable energy, therefore criterion described in point (a) is not relevant to the project activity.

This is a wind power plant/ unit and not a biomass fired plant, therefore criterion described in point (b) is not applicable to the project activity

Applicability 6: Assessment team checked that the project activity is a new grid connected wind power plant/ unit and not a retrofits, replacement or capacity additions and therefore this criterion is not applicable to the project activity.

Applicability conditions of "Tool to calculate the emission factor for an electricity system"

- OM, BM and CM are estimated using the tool under section B.6.1 of the PDD for calculating baseline emissions.
- The project activity is grid connected and thus emission factor is calculated and thus OM, BM and CM are estimated using the tool under section B.6.2 of the PDD for calculating baseline emissions.
- The project activity is located in India, a non-Annex I country. Therefore, this criterion is not applicable for the project activity.

- The project activity is a grid connected wind power project and not a hydro power plant. Therefore, this criterion is not applicable for the project activity.

Applus+ Certification confirms that the application of the baseline methodology is transparent and conservative and confirms that the chosen baseline and monitoring methodology i.e. ACM0002 Version 20.0 is applicable for first and second crediting period of the project activity.

VVB also confirms that the project activity complies with the requirement of baseline determination in ACOM0002 Version 20.0 for transition and renewal of second crediting period, which is the latest applicable methodology available to the project participant during submission to VVB. The project activity applies grid emission factor as per the latest available CEA database 7.0 for first crediting period and CEA database version 17.0 for second crediting period. The emission factor applied is 0.9528 tCO₂/MWh for first crediting period and 0.9305 tCO₂/MWh for second crediting period. This calculated emission factor is conservative as per tool.

The National CDM Authority (NCDMA), which is the Designated National Authority (DNA) for the Government of India (GOI) under the Ministry of Environment, Forests and Climate Change (MoEFCC), has mentioned four indicators for the sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India³. Thus the project's contribution towards sustainable development has been addressed based on the following sustainable development aspects:

S. Social well-being:

The project activity helps in improvement of the local infrastructure development. The project activity provided/provides job opportunity to local people during erection, commissioning and maintenance of the wind power plant. Frequency of visiting villages and nearby areas by skilled, technical and industrialist increase due to installation /site visit/operation and maintenance work related to wind power plant. This directly and indirectly positively effects the economy of villages and nearby area.

II. Economic well-being:

The project activity generates permanent and temporary employment opportunity within the vicinity of the project. The project activity would help in alleviation of poverty in the area as it creates employment opportunities to the local people. The electricity supply in the nearby area improves which directly and indirectly improves the economy and life style of the area.

III. Environmental well-being:

The Wind power is one of the cleanest renewable energy powers and does not involve any fossil fuel. There are no GHG emissions. The impact on land, water, air and soil is negligible. Thus, the project activity contributes to environmental well-being without causing any negative impact on the surrounding environment.

IV. Technological well-being:

³ https://ncdmaindia.gov.in/approval_process.aspx

The project activity uses the environmentally safe and sound technologies in Wind power sector. It improved the power quality and the improvement of transmission and distribution congestion. Hence, the project activity leads to technological well-being.

Assessment team checked the technical details of the Wind power plant from the manufacturer's technical manual and found the same to be correct.

The project activity envisaged 45 no's of WTGs with each 0.8 MW of capacity which makes total installed capacity of the project is 36 MW located in Madhya Pradesh state of India.

The technical details of the installed WTGs are as follows:

Particulars	Details
WTG Make	Wind World (India) Ltd
Model no.	WW-53/0.8 MW
Operational Data	
Rated Power	800 KW
Cut-in-wind speed	3.0 m/s
Cut-out wind speed	24.0-28.0 m/s
Rotor	
Rotor Diameter	52.9 m
No. of blades	3
Electrical	
Generator Type	Synchronous
Gear Box	
Type	Gearless
Tower	
Hub Height	75 m

The technical specification of meter is shown below:

Make	SEMS
Accuracy Class	0.2s
CTR	300/5
Multiplication Factor	1000

Assessment team checked the latitude and longitude of the project activity using GPS coordinates and also cross checked from the Google earth and found the detail to be correct. The same is defined below:

The Project is located at Madhya Pradesh state of India. The project coordinates are :

Sl.No.	WTG ID	Service Location No.	Latitude (N)	Longitude (E)
1	MAN_2	RWEMS-01	N 24° 05' 19.3"	E 74° 58' 54.1"
2	MAN_4	RWEMS-02	N 24° 05' 22.7"	E 74° 58' 47.3"
3	MAN_5	RWEMS-03	N 24° 05' 29.7"	E 74° 58' 52.2"

4	MAN_6	RWEMS-04	N 24° 05' 30.1"	E 74° 58' 39.9"
5	MAN_7	RWEMS-05	N 24° 05' 40.1"	E 74° 58' 46.1"
6	MAN_8	RWEMS-06	N 24° 05' 36.3"	E 74° 58' 31.0"
7	MAN_9	RWEMS-07	N 24° 05' 43.3"	E 74° 58' 31.1"
8	MAN_10	RWEMS-08	N 24° 05' 51.2"	E 74° 58' 29.7"
9	MAN_11	RWEMS-09	N 24° 05' 56.5"	E 74° 58' 23.3"
10	MAN_12	RWEMS-10	N 24° 05' 42.8"	E 74° 58' 13.5"
11	MAN_13	RWEMS-11	N 24° 05' 44.2"	E 74° 57' 59.7"
12	MAN_14	RWEMS-12	N 24° 05' 50.7"	E 74° 57' 56.3"
13	MAN_15	RWEMS-13	N 24° 05' 57.4"	E 74° 57' 46.3"
14	MAN_16	RWEMS-14	N 24° 06' 01.7"	E 74° 58' 02.9"
15	MAN_17	RWEMS-15	N 24° 06' 11.8"	E 74° 58' 05.6"
16	MAN_18	RWEMS-16	N 24° 06' 14.8"	E 74° 57' 57.7"
17	MAN_19	RWEMS-17	N 24° 06' 05.5"	E 74° 57' 37.2"
18	MAN_20	RWEMS-18	N 24° 06' 11.2"	E 74° 57' 32.6"
19	MAN_21	RWEMS-19	N 24° 06' 14.9"	E 74° 57' 25.3"
20	MAN_22	RWEMS-20	N 24° 06' 23.7"	E 74° 57' 27.4"
21	MAN_23	RWEMS-21	N 24° 06' 22.9"	E 74° 57' 39.1"
22	MAN_24	RWEMS-22	N 24° 06' 35.5"	E 74° 57' 33.8"
23	MAN_25	RWEMS-23	N 24° 06' 40.2"	E 74° 57' 28.0"
24	MAN_26	RWEMS-24	N 24° 06' 44.0"	E 74° 57' 19.7"
25	MAN_27	RWEMS-25	N 24° 06' 52.9"	E 74° 57' 47.1"
26	MAN_28	RWEMS-26	N 24° 06' 59.3"	E 74° 57' 45.0"
27	MAN_29	RWEMS-27	N 24° 07' 05.9"	E 74° 57' 36.3"
28	MAN_30	RWEMS-28	N 24° 07' 13.4"	E 74° 57' 28.6"
29	MAN_31	RWEMS-29	N 24° 07' 20.0"	E 74° 57' 24.8"
30	MAN_32	RWEMS-30	N 24° 07' 28.4"	E 74° 57' 13.5"
31	MAN_33	RWEMS-31	N 24° 07' 20.3"	E 74° 57' 13.6"
32	MAN_34	RWEMS-32	N 24° 06' 19.8"	E 74° 56' 47.7"
33	MAN_35	RWEMS-33	N 24° 06' 24.9"	E 74° 56' 42.0"
34	MAN_36	RWEMS-34	N 24° 06' 33.1"	E 74° 56' 33.2"
35	MAN_37	RWEMS-35	N 24° 06' 40.0"	E 74° 56' 46.1"
36	MAN_40	RWEMS-36	N 24° 06' 40.9"	E 74° 56' 25.1"
37	MAN_38	RWEMS-37	N 24° 06' 45.3"	E 74° 56' 39.4"
38	MAN_39	RWEMS-38	N 24° 06' 53.4"	E 74° 56' 40.8"
39	MAN_41	RWEMS-39	N 24° 06' 48.4"	E 74° 56' 23.8"
40	MAN_42N	RWEMS-40	N 24° 06' 55.2"	E 74° 56' 21.5"
41	MAN_43	RWEMS-41	N 24° 07' 03.0"	E 74° 56' 12.1"
42	MAN_44	RWEMS-42	N 24° 07' 08.7"	E 74° 55' 57.9"
43	MAN_45	RWEMS-43	N 24° 07' 07.7"	E 74° 56' 44.8"
44	MAN_46	RWEMS-44	N 24° 07' 15.5"	E 74° 56' 44.4"
45	MAN_56	RWEMS-45	N 24° 08' 02.2"	E 74° 56' 21.0"

The geo coordinates of plants of the project activity has been provided in the table in Section A.2 of the PDD and found correct.

- **Principle 2: Safeguarding Principles**

The Safeguarding principles assessment is as below:

Safeguarding principle	Assessment question	Assessment of relevance to the project (Yes/potentially/no)	Justification	Mitigation measure (if required)
Human Rights	1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights. 2. The Project shall not discriminate with regards to participation and inclusion.		The Project is not in conflict with the economic livelihood of the local community. The Project does not cause any human rights abuse and respects internationally proclaimed human rights issue. The PP confirmed that the project does not employ any personnel based on gender, race, religion, sexual orientation or any other basis which is also verified from the Company HR policy. Further, the Project meets the local labour law requirements thus does not cause any human rights abuse. The India has ratified the Convention 100 (equal remuneration) and convention 111 (discrimination in employment /occupation) under the ILO Declaration on Fundamental Principles and rights⁴ The project adheres to the host country's commitment to the above mentioned conventions. Hence, assessment team confirms the project will not have any negative impact over the human rights.	Not required

⁴ <http://www.mfcindia.org/main/bgpapers/bgpapers2013/am/bgpap2013c.pdf>

Gender Equality & Women's Rights	The Project shall complete the following gender assessment questions in order to inform Requirements, below: 1. Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits? 2. Is there a possibility that the Project can adversely affect men and women in marginalized or vulnerable communities (e.g., potential increased burden on women or social isolation of men)? 3. Is there a possibility that the Project might not take into account gender roles and the abilities of women or men to participate in the decisions/designs of the project's activities (such as lack of time, child care duties, low literacy or educational levels, or societal discrimination)? 4. Does the Project take into account gender roles and the abilities of women or men to benefit from the Project's activities (e.g., Does the project criteria ensure that it includes minority groups or landless peoples)? 5. Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities? 6. Would the Project potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in design and	Assessment team checked during the site visit that men-women have equal participation and equal pay is given for equal work. The employment contract for both Men and women is checked and Salary Slip for both Men and women are checked to confirm equal pay for equal work. Projects do not affect men and women in marginalized or vulnerable communities. Both men and women are employed as per the Skill level and requirement of the Organization. Local Men and women who are uneducated are provided unskilled job during the construction as well as operation phase of the project which generated employment opportunity for the local people. The Project design do not increase women work load however on contrary generated employment opportunity for them. The project has Women cell in case of any Sexual harassment case is noticed and the same is resolved on priority basis. Moreover, since this has generated employment for women it improves there overall life of the family as well. The project does not discriminate the local community on basis of gender or caste or religion and therefore equally serve to all.⁵. PP does not involve in any form of discrimination in any kind. India also ratified relevant ILO core conventions on equality, namely Equal Remuneration Convention (Convention No 100) and	Not Required
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⁵ https://labour.gov.in/sites/default/files/equal_remuneration_act_1976.pdf

	implementation or access to opportunities and benefits? 7. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women and men in accessing and managing environmental goods and services? 8. Is there a likelihood that the proposed Project would expose women and girls to further risks or hazards? The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women. 1. Sexual harassment and/or any forms of violence against women – address the multiple risks of gender-based violence, including sexual exploitation or human trafficking. 2. Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls. 3. Restriction of women's rights or access to resources (natural or economic). 4. Recognise women's ownership rights regardless of marital status – adopt project measures where possible to support to women's access to inherit and own land, homes, and other assets or natural resources.		Discrimination (Employment and Occupation) Convention (Convention No 111) in 1997⁶. During site visit it was noted that the project proponent has a grievance cell which would look into complaints if any raised. Further, in India same is offence under the Criminal Law (Amendment) Act, 2013, Section 354 A of the Indian Penal Code that stipulates what consists of a sexual harassment offence and what the penalties shall be for a man committing such an offence. The project does not involve in slavery, imprisonment or coercion of women and girls as joining the organization is fully voluntary. The Project will not restrict women's rights or access regarding natural resources. Marital status is irrelevant to the Project. During interviews with PP it was noted that, the project proponent does not discriminate on gender, caste, religion etc. The Project has equal opportunity for women and men to contribute both in volunteer and working positions. Same is evident from the HR policy of the company.	
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⁶ https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-new_delhi/documents/publication/wcms_650119.pdf

	Projects shall apply the principles of nondiscrimination, equal treatment, and equal pay for equal work, specifically: 1. Where appropriate for the implementation of a Project, paid, volunteer work or community contributions will be there to provide the conditions for equitable participation of men and women in the identified tasks/activities. 2. Introduce conditions that ensure the participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status. 3. Ensure that these conditions do not limit the access of women or men, as the case may be, to Project participation and benefits. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks.			
Community Health, Safety and Working Conditions	The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community.	No	The project is renewable energy technology (wind Technology) and does not have exposure to increased health risks and shall not adversely affect the health of the workers and the community. The assessment team checked the company's EHS Policy and confirmed that PP is committed to provide appropriate and comprehensive information, safe work procedures, instructions and training to ensure all personnel are fully aware of the organization's	Not Required

			safe work practices and enable them to meet their performance objectives. Necessary health and safety measures are taken during construction and operation phase, relevant staff will be trained to be able to work with high voltages.	
Sites of Cultural and Historical Heritage	Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, or practices)?	No	Through the site visit, interview and secondary research it is found that no cultural heritage is located near to the project site.	Not Required
3.4.2 Forced Eviction and Displacement	Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No	The project has received the necessary approvals from the local authorities and does not lead to any resettlement.	Not Required
3.4.3 Land Tenure and Other Rights	1. The Project Developer shall identify all such sites/matters potentially affected by the Project. For all such sites/matters identified the Project shall respect and safeguard: (a) Legal rights, or (b) Customary rights, or I Special cultural, ecological, economic, religious or spiritual significance of people shall be demonstrably promoted/protected. 2. Changes in legal arrangements must be in line with relevant law and regulation and must be carried out in strict adherence with such laws. All legal disputes must be resolved prior to Project being carried out in such areas. All such changes must be demonstrated as having been agreed with free, prior and informed consent.	No	The project has received the necessary approvals from the local authorities and does not lead to any resettlement. There are no any uncertainties with regards land tenure, access rights, usage rights or land ownership. No Expropriation has been conducted on any private land involved in project activity. Land has been utilised by PP directly from the owner of the land through direct negotiation of commercial terms. There are state revenue land which are on lease for 30 years (within the lifetime of project activity)	Not Required

	3. The Project Developer must hold uncontested land title for the entire Project Boundary to complete Project Design Certification.			
.1 Labour Rights	1. The Project Developer shall ensure that there is no forced labour and that all employment is in compliance with national labour and occupational health and safety laws, with obligations under international law, and consistency with the principles and standards embodied in the International Labour Organization (ILO) fundamental conventions. Where these are contradictory and a breach of one or other cannot be avoided, then guidance shall be sought from Gold Standard. 2. Workers shall be able to establish and join labour organisations. 3. Working agreements with all individual workers shall be documented and implemented. These shall at minimum comprise: (a) Working hours (must not exceed 48 hours per week on a regular basis), AND (b) Duties and tasks, AND (c) Remuneration (must include provision for payment of overtime), AND (d) Modalities on health insurance, AI(e) Modalities on termination of the contract with provision for		Forced labour is an illegal activity in the host country and the local labour compliance takes into account of the same. Further, India is a party to ILO and forced labour is illegal in India⁷ The project does not employ any form of forced or compulsory labour. Employees can quit their Services at any time. The project complies with the Factories Act in India that prohibits forced or compulsory labour. The project activity does not involve any child labour. The project respects fundamental right of employee. There is law in India since 1926 by The Trade Unions Act, 1926⁸ which protects rights of industrial trade unions and their members. The agreements are in place for permanent employees The project prefers the local employment and culture is maintained at project site. The country has strict prohibition for child labour⁹. Thus project does not involve child labour during construction and operation of project activity.	Not Required

⁷ <https://labour.gov.in/lcandilasdivision/india-ilo#:~:text=India%20is%20a%20founder%20member,ILO%20is%20its%20tripartite%20character.&text=Governing%20Body%3A%20%2D%20Executive%20Council%20of%20the%20ILO.>

⁸ http://labour.bih.nic.in/Acts/trade_unions_act_1926.pdf

⁹ http://www.indianchild.com/child_labour_law_in_india.htm

	voluntary resignation by employee, AND Provision for annual leave of not less than 10 days per year, not including sick and casual leave. The Project Developer shall justify that the employment model applied is locally and culturally appropriate. 4. ate. 5. Child labour, as defined by the ILO Minimum Age Convention is not allowed. The Project Developer shall use adequate and verifiable mechanisms for age verification in recruitment procedures. Exceptions are children for work on their families' property as long as: (a) Their compulsory schooling (minimum of 6 schooling years) is not hindered, AND (b) The tasks they perform do not harm their physical and mental development, AND (c) The opinions and recommendations of an Expert Stakeholder shall be sought and demonstrated as being included in the Project design. 6. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.		The project follows the health, safety and environment guidelines at project site. The project ensures the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.	
3.6.2 Negative Economic Consequences	1. The Project Developer shall demonstrate the financial sustainability of the Projects implemented, also including those that will occur beyond the Project Certification period. 2. The Projects shall consider economic impacts and	No	No potential risks to the local economy. The financial sustainability of the Projects implemented, also including those that will occur beyond the Project Certification period. The financial sustainability is demonstrated in registered PDD and these calculations	Not Required

	demonstrate a consideration of potential risks to the local economy and how these have been taken into account in Project design, implementation, operation and after the Project. Particular focus shall be given to vulnerable and marginalized social groups in targeted communities and that benefits are socially-inclusive and sustainable.		are for entire lifetime of project activity. The project does not involve any negative impacts and no any potential risk to local economy. The project leads to economic development of the local area by means of generating employment opportunities for local people either directly or indirectly.	
4.1.1 Emissions	Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The project is renewable energy technology (wind Technology) and does not lead any increase in greenhouse gas emissions over the Baseline Scenario.	Not Required
4.1.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project activity supplies energy to national grid and project activity displaces equivalent quantity of electricity which would have been generated by fossil fuel dominated grid connected power plants. The clean energy supply to the grid increases and hence Locals can get benefit of having continuous excess to clean power.	Not Required
4.2.1 Impact on natural water patterns and flow	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	The project is renewable energy technology (wind Technology) and does not affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s).	Not Required
4.2.2 Erosion and/or water body stability	1. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? If 'Yes' or 'Potentially' proceed to question 2. 2. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?	Potentially	The project may result in Soil erosion may occur due to vegetation clearance and excavation activities during the construction of project. So the PP proposed the following mitigation measures to avoid the soil erosion. "Restoration of Topography to the extent possible and re-vegetated for slope stabilization."	The mitigation measures proposed is in line with the ESIA. The same is verified during site visit.

			Though site visit observation and interview with site personnel the assessment team followed the mitigation measures during the construction of the project activity.	
4.3.1 Landscape modification and soil	Does the Project involve the use of land and soil for production of crops or other products?	No	The project proponent has implemented Environment Health Safety and Social guideline which takes into account the same. The project activity activity does not involve use of land and soil for production of crops or other products. There are some tree cutting occurred during construction phase which is minimum and plantation has taken place after construction. During onsite visit, VVB team observed that land on which WTGs are installed are barren land and not used for farming. However, during on site visit and interview with PP representatives and local stakeholders, VVB confirmed that land belongs to Forest department and land is leased to the PP for project development. However, Land use does had only sparse vegetation and almost barren.	Not Required
4.3.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	The project is renewable energy technology (wind Technology). The Project will not be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions. Thus this section is Not Applicable.	Not Required
4.3.3 Genetic Resources	Could the Project be negatively impacted by the use of genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development)?	No	he project is renewable energy technology (wind Technology). The Project not be negatively impacted by the use of genetically modified organisms or GMOs. Thus this section is Not Applicable	Not Required
4.3.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	No	The project has received environmental clearance from the State Pollution control Board. Further the EHSS	Not Required

			guidelines take into account the same. The project does not lead to release of any hazardous substances that pose threat to the environment. Rather it aims at reducing the air pollution that is prevalent due to use of fossil fuel power plants. The project promotes environmental protection through the use of cleaner technology. The project abides by the stipulations of the Indian Environment Protection Act 1986¹⁰.	
4.3.5 Hazardous and Non-hazardous Waste	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	Potentially	During the operation of the project will generate waste lube oil/ transformer oil and that may impact soil in the event of spillage. So, PP has proposed the following mitigation measures: "Segregation of Hazardous waste (used fuel oil/paint/chemical containers, waste oil, lubricants, oil rags, contaminated soil, used batteries etc) and Proper disposal of the same through waste management authority" During site visit site personnel also confirmed that the proposed mitigation measures will be correctly followed during the operation of the project activity.	The mitigation measures proposed is in line with the ESIA. The same is verified through interview with PP.
4.3.6 Pesticides and fertilizers	Will the Project involve the application of pesticides and/or fertilisers?	No	The project is renewable energy technology (wind Technology) power generation. There is no any involvement of pesticides	Not Required

¹⁰ <http://legislative.gov.in/actsofparliamentfromtheyear/environment-protection-act-1986>

			and/or fertilizers. Thus, this principle is not applicable.	
4.3.7 Harvesting of forests	Will the Project involve the harvesting of forests?	No	The project is renewable energy technology (wind Technology) power generation. The project activity developed in land where no agriculture activities were taken place. Though some trees were cut during construction stage, the number is minimum and plantation has taken place.	Not Required
4.3.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The project is renewable energy technology (wind Technology) power generation. The Project does not have any impact on the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives. Thus this principle is not applicable.	Not Required
4.3.9 Animal Husbandry	Will the Project involve animal husbandry?	No	The project is renewable energy technology (wind Technology) power generation. The Project does not involve animal husbandry. Thus not applicable	Not Required
4.3.10 High Conservation Value Areas and Critical Habitats	Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	No cultural heritage is observed on the project site, thus no harm observed. Compliance with India's commitment to International Covenant on Economic, Social and Cultural Rights 10.04.79 will ensure no damage to critical cultural heritage. The project is not located in any HCV areas as per the list of approved HCV areas of India ¹¹ .	Not Required
4.3.11 Endangered Species	1. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? Does the Project potentially impact other areas where endangered species may be	No	There are no any endangered species identified at project site and no species have the route through area. The project activity does not impact other endangered species through trans boundary affects.	Not Required

¹¹ <http://natureconservation.in/state-wise-list-of-conservation-reserves-of-india-updated/>

	present through trans-boundary affects?		Moreover as per the evidence provided by PP, Validation team observed that project site is not among the major Indian route for birds' migration. Moreover, also observed that Most birds' flights occur at between 600 ft (~ 182 mtr) and 5000 ft above sea level with an average height of 1525 ft and max height covered by project WTG is 130 mtr. Same justification is provided by PP in principle 9.11 of revised PDD.	
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Assessment of Gender Sensitive requirement:

Quest-on 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	PP has confirmed that from the pre-feasibility study stage to the operation time, from the stakeholder investigation to the employment, fair chance and gender equality to access the source, information and to reflect their opinions as a main consideration is taken by the project owner. This is confirmed interview with PP, verification of stakeholder consultation report and Company HR policy.
Quest-on 2 - Explain how the project aligns with existing country policies, strategies and best practices	The PP is a registered organisation in India and the project is implemented in India and hence complies with all the laws and policies of the gender equality as follows. • The project activity promotes and encourages active participation of women and men during the stakeholder meetings, giving an equal opportunity to both genders. • The project provides equal employment opportunities for men and women. • Equal pay for equal work is followed. No discrimination is made in the salaries of men and women. This is confirmed interview with PP and Company HR policy. Hence, the project aligned with existing country policies, strategies and best practices.
Quest-on 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	As verified from per the GS preliminary review report, Gold Standard did not mention any requirement for an expert stakeholder opinion (with a specific emphasis on gender and environment expertise) to support the gender safeguards assessment process.
Quest-on 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	As verified from per the GS preliminary review report, Gold Standard did not mention any requirement for an expert stakeholder opinion (with a specific emphasis on gender and

	environment expertise) to support the gender safeguards assessment process.
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The SDG goals for both the crediting periods are also described below:

SDG Goal	Assessment of Methodological choices/approaches for estimating the SDG outcome
SDG 7 –Affordable and Clean Energy: Ensure access to affordable, reliable, sustainable and modern energy for all	Measurement Method: - Electricity produced and supplied to the grid is monitored through energy meter. Net electricity generated is obtained from the monthly JMR (Monthly Share Certificates). The other parameters used for net electricity supplied to grid are mentioned in monitoring plan. Frequency: Monthly. QA/QC Process: The meters will be calibrated on regular frequency. value of parameter will be cross checked with invoices. Relevant SDG Target: By 2030, increase substantially the share of renewable energy in the global energy mix. Corresponding indicator: Quantity of net electricity generation supplied by the project plant/unit in year y in MWh
SDG 8 – Decent Work and Economic Growth: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Measurement Method: - Training and employment generation is monitored through training records, staff register or letter from O&M contractor for training and employment details or HSE/HR records. Frequency: Annual. QA/QC Process: This parameter is based on records, data and no any QA/QC procedure required. The VVB will confirm this parameter with interview with PP or Site in charge or employees for training and employment generation. Relevant SDG Target: 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. • 01 Training provided to O&M staff/year • 10 Employment generation Corresponding indicator: 1. Number of people employed directly due to the project activity. (8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities) 2. Number of trainings provided per year. (8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training).

SDG Goal	Assessment of Methodological choices/approaches for estimating the SDG outcome
SDG 13 – Climate Action: Take urgent action to combat climate change and its impacts	Measurement Method: - The emission reduction parameter is calculated as product of net electricity supplied to grid and grid emission factor. The grid emission factor is ex-ante parameter and determined based on data obtained from “CO₂ Baseline Database for Indian Power Sector” version 7.0 for first crediting period and version 17.0 for second crediting period, published by the Central Electricity Authority, Ministry of Power, and Government of India. This is in line with “Tool to calculate the emission factor for an electricity system, 3.0 for first crediting period and version 7.0” for second crediting period. The emission reductions are calculated as per the formula provided by the approved methodology ACM0002, Version 20.0 for first and second crediting period. Frequency: NA. QA/QC Process: This parameter is calculated, and no any QA/QC procedure required. Relevant SDG Target: Integrate climate change measures into national policies, strategies and planning from the project Corresponding indicator: Emission reductions in tCO_{2e} from the project activity.

- **Principle 3: Stakeholder Inclusivity**

As per the CDM/GS requirements, it is necessary to invite the relevant stakeholders, before the validation process starts. The physical local stakeholder consultation was conducted on 30/10/2021 at project site Rewas Devda Village Mandsaur district & Surrounding area, Madhya Pradesh state India.

For the purpose of Stakeholder Consultation meeting, Individual Invitation Letters were issued to the relevant Local Administrative departments and Notices were paste in public place, so as to reach maximum populace. Both Public notice and Letters included the Venue, Date, Time and purpose of the meeting is checked by the assessment team and found correct. The non-technical summary of the project was prepared and the same has been translated into local language for distribution among stakeholders. The local public showed great interest and shared full support for wind power project operations. The same is thus acceptable to the assessment team.

The local stakeholders’ consultation meeting was attended by local persons including local villagers, local vendors and technology suppliers.

The stakeholders identified by the project participant were local villagers who are the major population of the particular area, local communities and gram panchayat (Village head), WTG suppliers, project proponent representatives, Project/O&M Team and other people involved in the project. Validation team verified the list of participants who attended the stakeholder meeting and feedback questionnaire and confirms the stakeholders identified are relevant. The validation team also verified the minutes of

meeting to note that no negative comments were received and the same was cross checked with the information obtained during follow up interviews with the stakeholders.

Thus, Validation team is of the opinion that the stakeholder meeting was adequate and appropriate.

The project activity is a GS VER project and therefore PP was required to conduct a Stakeholder Feedback Round (SFR) covering the issues (if any) related to the project activity. SFR was started on 06/10/2021 for 60 days after the project is listed in the GS registry vide email dated 05/12/2021. For the local people, the Stakeholder Consultation Report with draft PDD was made available online for comments. The email is also submitted to the VVB. The email attachment is also checked by the assessment team and found correct. Following observations are made by the DOE:

- Different representative of stakeholders like local villagers, head of panchayat, NGOs, PP employees were invited for their comments via emails during stakeholder's feedback round
- No negative comments were received during the period starting from 06/10/2021 to 2 months' time period and local stakeholders were very satisfied with the project activity implementation and operation in their area.
- Assessment team asked few queries to the stakeholders during the validation site visit and concludes that stakeholders are overall happy with the implementation of the project activity. Detail regarding has been provided in section 2.3 above.

Assessment team also noticed during document review and PP interviews that a grievance register is placed on site and grievance cell is in charge to resolve the complaints if any received during both construction and operation phase of the project activity. The information regarding grievance register is circulated through public notices so that local's people are aware of the same and can put forth their opinion regarding the project activity. The idea and effort put forward by the PP is commendable and hence the same is acceptable to the assessment team to include stakeholder in each and every phase of the project. The Grievance mechanism and procedure adopted have been confirmed and assessed to be appropriate. The grievance register is maintained at the project site office which looks after the day-to-day operation and maintenance of the project.

- **Principle 4: Demonstration of real outcomes (for both crediting periods)**

The Sustainable monitoring plan is described below:

SDG Parameter	Indicator	Monitoring
SDG 7 : Affordable and Clean Energy	7.2.1 Renewable energy share in the total final energy consumption	The available parameter to Project owner is net electricity supplied to grid and same is mentioned as monitoring parameter. The net electricity generation by the project is mentioned in the share certificate issued by state utility on monthly basis. The calculation of net electricity generation is in the hand of electricity board/CEA and PP has no role to

SDG Parameter	Indicator	Monitoring
		play in the same. At the end of each billing month a Generation statement provided by state utility which mentions the value of net export by individual PP and thus the same is used as primary source of data for emission reduction. Monthly generation can be crosschecked with invoices. The energy meters used are tri-vector meters which are of accuracy class 0.2s. The meters are monitored continuously & cumulative readings are taken at the end of the month. These are sealed by State Electricity board to avoid malfunctioning with meter readings. The officials frequently check the meters for tampering and malfunctioning with the meters. Meter is calibrated once every year by the state utility or approved third party. The calculation of net electricity supplied to grid is under purview of state electricity board and Project owner do not have control on it. The onsite practice is thus acceptable to the assessment team as the same is as per the requirement of the approved methodology. Data / Parameter : $EG_{PJ, y}$ Unit: MWh/year Source of data: JMR Measurement methods and procedures: Net Electricity exported by the project is mentioned in the share certificate issued by respective state utility on monthly basis. Monitoring frequency: measured continuously and recorded monthly
SDG 8 : Decent Work and Economic Growth	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	Project participant have Documentation pertaining to employment, attendance register and documentary details of training/capacity building. Assessment team verified it. 10 people are expected to be employed at site during crediting period. Assessment team also checked the salary slips/contracts and confirms that due to project activity peoples are getting more than minimum wages as a salary and this salary is better than local level salary. Based on the roles and responsibility of employee,

SDG Parameter	Indicator	Monitoring
		the salary will be higher than the minimum salary of the region and hence the parameter monitoring is acceptable to the assessment team. Data / Parameter : Number of people employed directly due to the project activity Unit: Number Source of data: Plant employment records Measurement methods and procedures: Not applicable Monitoring frequency: Once in a year
SDG 8 : Decent Work and Economic Growth	8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training	The training records are maintained on regular basis with annual consolidation. Assessment team verified. 10 people are expected to be employed at site during crediting period. The employment opportunities generated are local or temporary or permanent as checked and confirmed by the assessment team. The training related to O&M, Safety, emergency procedure, fire safety etc. are provided to employees. Since local people are employed due to project activity, the training given to employees improves the quality of employment. Apart from these training to employees, the PP organizes few events which will be beneficial to society as a part corporate social responsibility (CSR) activity as per their policy. As the parameter is subjected to monitoring the same will be checked during the verification of the project activity. It will be ensured that safe working condition and safety equipment's has been provided for all skilled and unskilled Labour. It will be checked during verification through site visit observations and interview with people if noise level is maintained within permissible limit. Safety equipment to be provided to workers both skilled and unskilled will be checked during the verification of the project activity. Assessment team however checked the same is already provided to the workers as part of companies CSR (EHS) policy

SDG Parameter	Indicator	Monitoring
		Data / Parameter : Number of trainings provided per year Unit: Numbers Source of data: Training records Measurement methods and procedures: Not applicable Monitoring frequency: Once in a year
SDG 13: Climate Action	Emission Reductions	The emission reduction calculation will be done as per the formula mentioned in the GS4GG PDD. As the parameter is subjected to monitoring the same will be checked during the verification of the project activity. Data / Parameter : Emission Reductions Unit: tCO ₂ e Source of data: Plant records and ER calculation sheet Measurement methods and procedures: NA Monitoring frequency: Monthly

Transmission line effect: The project activity is exporting the generated electricity to grid. The EPC contractor and state electricity board is responsible for the construction of transmission line. They are following safety while construction of transmission lines. The project proponent does not have any role in the construction of transmission lines. The standard procedures are followed at site while commissioning the transmission lines.

- **Principle 5: Financial Additionality & Ongoing Financial Need**

This project has been registered as a CPA under POA 9416. Since, the same project is being transitioned to GS4GG, there is no change in the additionality of the project. So, the additionality of the project can be referred from the section D.5 of the CPA-DD¹².

As per the decision 17/cp.7 para 43, a CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity.

As per the selected methodology AMCM0002, version 20.0, the 'Tool for the demonstration and assessment of additionality', Version 7.0 has been used to justify the additionality of the project.

The project is continuing the debt repayment and supplying power at PPA rate which is fixed. Hence financial need is required for this project.

The project developer is seeking transition from UNFCCC CDM mechanism and Design Certification renewal as the project was not financially lucrative considering the low IRR. The investment decision of the project was based on revenue from carbon financing that could boost lower rate of return from the project. The amount of electricity generated and sold to the grid is the only source of company's income and is central to the project's cash flow.

¹²[CDM: Mandsaur Wind Power Project in Madhya Pradesh \(unfccc.int\)](http://cdm.unfccc.int)

As explained by the project developer in the GS PDD, the electricity generated from the project activity since its operation was low compared to the estimated in the IRR of the project activity and the same can be checked with the previous verification of CDM project activity¹³. The O&M cost of the project activity has also been found to be increased from the cost considered in the registration time, the CER revenue is the critical in the project activity for positive return and to continue the project, the price 3 euro considered during the registration time, however, the price of carbon credits reduced drastically in last several years¹⁴ and it is less than 1\$ in current market. The VVB has checked the actual O&M cost which is found to be increased as compared to the assumption made at the time of investment decision.

These events along with global as well as local lockdown on account of COVID-19 have made the financials of the project even more precarious thereby justifying the ongoing financial need in the form of carbon revenue.

3.9 Calculation algorithm and/or formula used to determine emission reductions

For 1st Crediting period:

The GS4GG PDD of the project activity is checked by the assessment team and found that ACM0002 Version 20.0 is used at the time of GS validation. The formula used in the GS4GG PDD was used for the calculation of emission reduction and same is found to be correct. Hence emission reduction calculation at this time of validation is conservative and appropriate.

Assessment team checked that Formula used to calculate the net emission reduction for the project activity is

$$ER_y = BE_y - PE_y$$

Where,

ER_y = Emission Reduction in tCO₂/year

BE_y = Baseline emission in tCO₂/year

PE_y = Project emissions in tCO₂/year

Baseline Emissions:

Baseline Emissions for the amount of electricity supplied by project activity, BE_y is calculated as

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

Where:

¹³

https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/H8ZL9NPDCF0B76JQM5XVTGKI1YU4AO/view?p=1

¹⁴ <https://carboncredits.com/carbon-prices-today/>

BE_y = Baseline emissions in year y (t CO₂/yr)

$EG_{PJ,y}$ = Quantity of net electricity generation supplied by the project plant/unit in year y in MWh

$EF_{grid,CM,y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the version 07.0 of the "Tool to calculate the emission factor for an electricity system" (t CO₂/MWh)

The project activity is the installation of wind power plant and it is a green field project. So the formula in option (a) i.e., greenfield plants is used to calculate the value of $EG_{PJ,y}$. In accordance with the applied methodology:

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

$EG_{PJ,y}$ = Quantity of net electricity generation supplied by the project plant/unit in year y in MWh

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

$$BE_y = 59,280 * 0.9528 = 56,481 \text{ tCO}_2$$

For 2nd Crediting period:

The GS4GG PDD of the project activity is checked by the assessment team and found that ACM0002 Version 20.0 is used at the time of GS validation. The formula used in the GS4GG PDD was used for the calculation of emission reduction and same is found to be correct. Hence emission reduction calculation at this time of validation is conservative and appropriate.

Assessment team checked that Formula used to calculate the net emission reduction for the project activity is

$$ER_y = BE_y - PE_y$$

Where,

ER_y = Emission Reduction in tCO₂/year

BE_y = Baseline emission in tCO₂/year

PE_y = Project emissions in tCO₂/year

Baseline Emissions:

Baseline Emissions for the amount of electricity supplied by project activity, BE_y is calculated as

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

Where:

BE_y = Baseline emissions in year y (t CO₂/yr)

$EG_{PJ,y}$ = Quantity of net electricity generation supplied by the project plant/unit in year y in MWh

$EF_{grid,CM,y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (t CO₂/MWh)

The project activity is the installation of wind power plant and it is a green field project. So the formula in option (a) i.e., greenfield plants is used to calculate the value of $EG_{PJ,y}$. In accordance with para 46 of the applied methodology:

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

$EG_{PJ,y}$ = Quantity of net electricity generation supplied by the project plant/unit in year y in MWh

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

$$BE_y = 59,280 * 0.9305 = 55,160 \text{ tCO}_2$$

Project Emission

As per ACM0002, version 20, Project Emission for most renewable energy power generation project activities, $PE_y = 0$. However, some project activities may involve project emissions that can be significant. These emissions shall be accounted for as project emissions by using the following equation:

$$PE_y = PE_{FF,y} + PE_{GP,y} + PE_{HP,y}$$

Where:

PE_y = Project emissions in year y (tCO₂e/yr)

$PE_{FF,y}$ = Project emissions from fossil fuel consumption in year y (tCO₂/yr)

$PE_{GP,y}$ = Project emissions from the operation of geothermal power plants due to the release of non-condensable gases in year y (tCO₂e/yr)

$PE_{HP,y}$ = Project emissions from water reservoirs of hydro power plants in year y (tCO₂e/yr).

The project activity involves the generation of electricity from the installation of wind power plant. Hence, as per ACM0002, Version 20.0, there is no project emission for wind projects. Therefore, project emissions are zero.

Hence,

For 1st Crediting period:

$$ER_y = BE_y = 56,481 \text{ tCO}_2 \text{ per annum}$$

For 2nd Crediting period:

$$ER_y = BE_y = 55,160 \text{ tCO}_2 \text{ per annum}$$

SDG 13 Climate Action (for 1st crediting period)

Year	Baseline emissions	Project emissions	Leakage	Emission reductions
	(t CO ₂ e)	(t CO ₂ e)	(t CO ₂ e)	(t CO ₂ e)
Year 1	56,481	0	0	56,481
Year 2	56,481	0	0	56,481
Year 3	56,481	0	0	56,481
Year 4	56,481	0	0	56,481
Year 5	56,481	0	0	56,481
Total	282,405	0	0	282,405
Total number of crediting years	5			
Annual average over the crediting period	56,481	0	0	56,481

SDG 13 Climate Action (for 2nd crediting period)

Year	Baseline emissions	Project emissions	Leakage	Emission reductions
	(t CO ₂ e)	(t CO ₂ e)	(t CO ₂ e)	(t CO ₂ e)
Year 1	55,160	0	0	55,160
Year 2	55,160	0	0	55,160
Year 3	55,160	0	0	55,160
Year 4	55,160	0	0	55,160
Year 5	55,160	0	0	55,160
Total	275,800	0	0	275,800
Total number of crediting years	5			
Annual average over the crediting period	55,160	0	0	55,160

SDG 7: Affordable and Clean Energy (for 1st crediting period)

Year	Baseline estimate	Project estimate	Net Benefit
	MWh	MWh	MWh

Year 1	0	59,280	59,280
Year 2	0	59,280	59,280
Year 3	0	59,280	59,280
Year 4	0	59,280	59,280
Year 5	0	59,280	59,280
Total	0	296,400	296,400
Total number of crediting years	5		
Annual average over the crediting period		59,280	59,280

SDG 7: Affordable and Clean Energy (for 2nd crediting period)

Year	Baseline estimate	Project estimate	Net Benefit
	MWh	MWh	MWh
Year 1	0	59,280	59,280
Year 2	0	59,280	59,280
Year 3	0	59,280	59,280
Year 4	0	59,280	59,280
Year 5	0	59,280	59,280
Total	0	296,400	296,400
Total number of crediting years	5		
Annual average over the crediting period		59,280	59,280

SDG 8: Decent Work and Economic Growth(for 1st crediting period)

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Year 2	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation

Year	Baseline estimate	Project estimate	Net benefit
Year 3	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Year 4	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Year 5	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Total	0 Training, 0 Jobs, 0 O&M spent	• 05 Training provided to O&M staff/year • 50 Employment generation	• 05 Training provided to O&M staff/year • 50 Employment generation
Total number of crediting years	5 Years		
Annual average over the crediting period	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation

SDG 8: Decent Work and Economic Growth(for 2nd crediting period)

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Year 2	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Year 3	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation

Year	Baseline estimate	Project estimate	Net benefit
Year 4	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Year 5	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation
Total	0 Training, 0 Jobs, 0 O&M spent	• 05 Training provided to O&M staff/year • 50 Employment generation	• 05 Training provided to O&M staff/year • 50 Employment generation
Total number of crediting years	5 Years		
Annual average over the crediting period	0 Training, 0 Jobs, 0 O&M spent	• 01 Training provided to O&M staff/year • 10 Employment generation	• 01 Training provided to O&M staff/year • 10 Employment generation

REFERENCE

S. No.	Document/Evidence/Reference/Weblink, Version, Date
1.	GS4GG PDD, version 05 dated 21/07/2023
2.	Minutes of Meeting for Local Stakeholders' Consultation
3.	Emission Reduction Sheet
4.	Wind power Plant commissioning certificate from state utilities
5.	GS Preliminary Review under Gold Standard for the Global Goals
6.	Erection & commissioning contract between PP and supplier
7.	Technical Specifications of the Project activity
8.	Training records for the project activity
9.	Methodology: ACM0002 Version 20.0
10.	Standard: CDM project standard for project activities, Version 03.0
11.	Standard: CDM validation and verification standard for project activities, Version 03.0
12.	Procedure: CDM project cycle procedure for project activities, Version 03.0
13.	Tools: • Tool to calculate the emission factor for an electricity system, Version 7.0
14.	GS4GG guideline
15.	Stakeholders consultation report for the project SPVs
16.	Training Records of project staff at site
17.	Declaration for non-receiving of ODA for project dated 08/01/2020 Declaration of not participating in any other GHG mechanism dated 03/01/2022
18.	Universal declaration of Human Rights http://mha.nic.in/Human_Rights_Division (https://www.mha.gov.in/sites/default/files/Humman_Right_Act_1993_15052017.pdf) (https://www.un.org/en/universal-declaration-human-rights/)
19.	Ministry of Labour https://labour.gov.in/
20.	National Prevention of Corruption Act of Government of India http://legislative.gov.in/sites/default/files/A1988-49.pdf
21.	Ministry of Environment, Forests and Climate Change (MoEFCC) http://moef.nic.in/division/#
22.	Minutes of Meeting for Stakeholders' Feedback Meeting
23.	Emails sent to NGO, Stakeholders, villagers for stakeholder feedback round dated 27/09/2022
24.	UNFCCC Website for CDM mechanism– http://cdm.unfccc.int/
25.	HR employment records of the project staff on site & HSE manual,
26.	CSR manual of the company and CSR records
27.	Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects, Ministry of New and Renewable Energy (MNRE), September 2013
28.	Board Resolutions for decision making of the SPVs
29.	PPA/wheeling agreements between PP and third parties.

4. FINAL PROJECT DESIGN CERTIFICATION STATEMENT

Applus+ Certification has performed a validation for transition and renewal of crediting period of the project, titled "Mandsaur Wind Power Project in Madhya Pradesh by ReNew Wind Energy (MP Two) Private Limited". The validation was performed on the basis of UNFCCC criteria CDM

validation and verification standard for project activities, Version 03.0 for the project activity, Gold Standard GS4GG guideline and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the final version of GS4GG PDD and the subsequent follow-up interviews has provided Applus+ Certification with sufficient evidence to determine the fulfillment of stated criteria. In our opinion, the project meets all relevant UNFCCC and Gold Standard requirements for the Gold Standard and all relevant host country criteria. The project will hence be recommended by Applus+ Certification for registration with the Gold Standard Registry.

By displacing fossil fuel-based electricity with electricity generated from a renewable source, the project results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of annual emission reductions of 56, 481 tCO₂e per year for First Crediting Period(01/04/2016 to 31/03/2021) and 55,160 tCO₂e per year for Second Crediting Period(01/04/2021 to 31/03/2026).

The validation has been performed following the requirements of the latest version of the CDM validation and verification standard for project activities, Version 03.0 for the project activity, Gold Standard GS4GG guideline and on the basis of the contractual agreement.

In detail the conclusions can be summarized as follows:

- The project does not result in negative social, environmental and/or economic impacts.
- The project contribution to Environment, Social Development and Economic and technological development
- The project additionality is sufficiently justified in the Gold Standard PDD
- The project does not result in diversion of ODA.
- Conservative assumptions were applied in the project description.
- The monitoring plan of SD parameters is transparent and adequate.
- The project meets the stakeholder consultation requirements.

The conclusions of this report show, that the project, as it was described in the project documentation, is in line with all criteria applicable for the validation.

Date: 22/07/2023

Lead Auditor: Mr. Pankaj Kumar

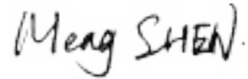
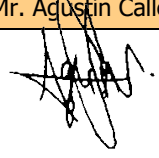
Tech. Expert: Mr. Pankaj Kumar

Auditor: NA

Tech. Reviewer: Mr. Simon Shen

Approver (*Applus+ Certification VVB Technical Manager*)

Mr. Agustín Calle de Miguel

ASSESSMENT TEAM	
Lead Auditor: Mr. Pankaj Kumar	Technical Reviewer: Mr. Simon Shen
Signature: 	Signature: 
Approver: Mr. Agustín Calle de Miguel	
Signature: 	

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

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	01
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	31/01/2023
As per GS4GG Principles and Requirements para 5.1.1, projects shall complete validation within two years of successful listing.			
Project Participant's response		Date:	18/02/2023
The listing of the project was done on 06/06/2022. Hence, the registration timeline is still valid.			
Documentation provided as evidence by Project Participant			
-			
Auditor's assessment comment		Date:	23/02/2022
Since the project was listed on 06/06/2022, the deadline for completing validation of the project is 05/06/2024. Hence, acceptable. CAR closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	02
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	31/01/2023
For Investment analysis, since the benchmark Is appointed on nominal terms, VVB shall validate the equity IRR Is calculated on nominal terms as well and IRR workbook shall be provided during design certification review.			
Project Participant's response		Date:	18/02/2023
-			
Documentation provided as evidence by Project Participant			
-			
Auditor's assessment comment		Date:	23/02/2022
PD has revised the IRR calculation throughout in PD and IRR sheet, Found acceptable by VVB team. Thus accepted. CAR closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	03
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	31/01/2023
VVB shall validate Appendix 1- Principles 9.10/9.11 justifications via official assessments and permits.			

Project Participant's response	Date:	18/02/2023
-		
Documentation provided as evidence by Project Participant		
-		
Auditor's assessment comment	Date:	23/02/2022
VVB team has now validated and provided opinion in validation report. CAR closed.		

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	04
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding	Date:	31/01/2023	
Under PDD B.7.3, please Include the specs of electricity meters and the single line diagram of the project.			
Project Participant's response	Date:	18/02/2023	
Meter technical specification has been provided in revised GS PDD. Also Metering Location Line Diagram has been provided in revised PDD.			
Documentation provided as evidence by Project Participant			
Calibration certificates of the energy meters and Revised GS PDD			
Auditor's assessment comment	Date:	23/02/2023	
The technical specification of the electricity meters and the single line diagram are found to be incorporated appropriately in the revised GS PDD CAR closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	05
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding	Date:	31/01/2022	
PD shall revisit justification of relevance column and remove blanks for all mandatory requirements. i.e: The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights – Justification of Relevance column shall be left blank removing "No" statement.			
Project Participant's response	Date:	18/02/2023	
Appendix 1 Table of GS PDD has been modified.			
Documentation provided as evidence by Project Participant			
Revised GS PDD			
Auditor's assessment comment	Date:	23/02/2023	
The revised GS PDD has been verified and the table in the appendix 1 has been found to be appropriately modified.			

CAR closed.

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	06
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	31/01/2022
Please move the parameter under D.1 of VPA-DD Instead of B.7.1.			
Project Participant's response		Date:	18/02/2023
Monitoring Parameters regarding safeguard analysis have been shifted to section D.1 of revised PDD.			
Documentation provided as evidence by Project Participant			
Revised GS PDD			
Auditor's assessment comment		Date:	23/02/2023
The parameter has been correctly shifted from section b.7.1 to D.1 in the revised GS PDD.			
CAR closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	07
Raised by:	Pankaj Kumar	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
- PP requested to revised and resubmit the GS PDD for the applicability of latest version GS4GG-Renewable-Energy-Activity-Requirements. - PP is requested to submit copy of ODA declaration & Declaration confirming project registered under other GHG schemes along with there would not be double counting of credits. Moreover, commissioning dates of WTGs found missing in GS PDD. Corrective action sought.			
Project Participant's response		Date:	02/09/2022
- Applicability of latest version GS4GG-Renewable-Energy-Activity-Requirements has been provided in Section A.1.1 of updated GS PDD. - Copy of ODA declaration & Declaration confirming project registered under other GHG schemes along with there would not be double counting of credits have been provided to assessment team. Also commissioning dates have been mentioned in Section A.3 of updated GS PDD.			
Documentation provided as evidence by Project Participant			
Updated GS PDD, ODA Declaration, Declaration regarding no Double Counting of credit.			
Auditor's assessment comment		Date:	05/09/2022
- PP has revised the PPD mentioning the applicability of latest version of GS4GG-Renewable-Energy-Activity-Requirements which have been verified by VVB. - PP has submitted the copy of ODA declaration and Declaration confirming that project is registered under other GHG schemes along with that there would not be double counting of credits which have been verified by VVB.			
CAR closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	08
Raised by:	Pankaj Kumar	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
- PP requested to submit supporting company policies/CSR documents for Elimination of All Forms of Discrimination against Women. - GS PDD mentions that "The SFR was being initiated and the process lasted for 60 days". However, to verify the same submit supporting document.			
Project Participant's response		Date:	02/09/2022
- Company Policy has been submitted as supporting document for Elimination of All Forms of Discrimination against Women. - Stakeholder Consultation Report has been submitted to the assessment team.			
Documentation provided as evidence by Project Participant			
Company HR Policy, Stakeholder Consultation Report.			
Auditor's assessment comment		Date:	05/09/2022
- PP has submitted Company HR policy documents mentioning elimination of all forms of discrimination against women which have been verified by VVB. - VVB has verified Stakeholder consultation report submitted by PP.			
CAR Closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	09
Raised by:	Pankaj Kumar	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
- The supporting's to the indicator mentioned relevant to SDG is missing. Corrective action is sought for the same. - Quantity of net electricity generation supplied by the project plant/unit in year is found inconsistent in section A.3 of GS PDD. Corrective action is sought for the same. - As per SDG 8: Decent Work and Economic Growth: The project leads to Trainings & workshops which are conducted for the O&M staff of Manufacturer as well as for the O&M staff of the PP, by their respective companies. Moreover, PDD claims equal pay for equal work, Person with Disability also get Decent work. The statements are not backed by proper evidences. - Employment generated due to project activity - Supporting missing - Records of hazardous waste inventory & disposal - Supporting missing - PP shall provide copy of HR and HSE Policy of the company.			
Project Participant's response		Date:	02/09/2022
- Supporting regarding SDG 7, 8 and 13 has been submitted, For SDG 7 and 13 Generation Report has been submitted. Also ER Sheet has been submitted as supporting of SDG 13 parameter. For SDG 8 parameter, Attendance Register, Training Records, Salary Slip and HSE Policy and HR Policy of Organization has been provided. - Quantity of Net electricity generation supplied by project activity is corrected in Section A.3 of updated PDD. - The following supporting documents have been submitted to assessment team:			

Attendance Register & Employment Contract – For employment generated due to project activity		
O&M Agreement – For cost spent on operation and maintenance purpose		
Hazardous waste is negligible in operation phase of project activity. The transformer oil used for project activity is refined and reused. Hence no hazardous waste is generated from this project activity and is not required to record.		
Documentation provided as evidence by Project Participant		
JMR, ER Sheet, Attendance Register, Training Records, Salary Slip, HSE Policy, HR Policy, O&M Agreement.		
Auditor's assessment comment	Date:	05/09/2022
- PP has submitted the estimated ER sheets, Attendance register, Training records, Salary slips, HR policy of organisation which have been verified by VVB. However, VVB is unable to find the HSE policy in the submitted documents, PP is requested to submit the same. - PP has submitted O&M agreement, Attendance sheets and employment contract which have been verified by VVB.		
CAR is open.		
Project Participant's response	Date:	08/09/2022
HSE Policy of organization has been provided to assessment team		
Documentation provided as evidence by Project Participant		
HSE Policy of organization		
Auditor's assessment comment	Date:	11/09/2022
PP has submitted the HSE policy of the organisation which have been verified by VVB.		
CAR closed.		

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	10
Raised by:	Pankaj Kumar	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
CDM Project Crediting Cycle: the project cycle shall mirror the CDM Cycle in terms of crediting period (i.e., 07 years) but the total length of crediting period will end along with CDM CP ending or maximally 15 years ending, whichever is earlier being project registered with CDM. Correction sought.			
Project Participant's response		Date:	02/09/2022
This project is also registered with UNFCCC CDM project activity with 7 years crediting period with renewable twice i.e 21 years of total crediting period. Hence this GS project will end before completing total crediting period of 21 years as the total crediting period of GS project is of 15 years.			
Documentation provided as evidence by Project Participant			
GS PDD.			
Auditor's assessment comment		Date:	05/09/2022
PP has submitted the revised PDD version 03 dated 02/09/2022 mentioning the crediting period. VVB has verified that the mentioned crediting period lies between the crediting period of CDM cycle registered as CPA 9416-P1-0013-CP1.			
CAR closed.			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	01
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
Following FARs have been raised during preliminary review of the project: FAR # 1: As the Project seeking GS-VER from CER are not required to deregister from CDM, PP shall not claim emission reductions under both GS4GG and CDM for the same vintage. VVB please check this.			
Project Participant's response		Date:	02/09/2022
Declaration regarding Double Counting won't be considered has been provided to assessment team.			
Documentation provided as evidence by Project Participant			
Declaration Regarding Double Counting.			
Auditor's assessment comment		Date:	05/09/2022
PP has submitted the declaration regarding double counting which have been verified by VVB.			
FAR closed.			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	02
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
Following FARs have been raised during preliminary review of the project: FAR # 2: Please VBB check the effectiveness of "Stakeholder Feedback Round" described in Page 47, the GS-PDD file.			
Project Participant's response		Date:	02/09/2022
Stakeholder Consultation Report has been submitted to assessment team. Also the same stakeholder feedback details has been provided in Section E of updated GS PDD. The stakeholder consultation was as per GS guidelines.			
Documentation provided as evidence by Project Participant			
Stakeholder Consultation Report, Updated GS PDD.			
Auditor's assessment comment		Date:	05/09/2022
PP has submitted the stakeholder consultation report which have been verified by DOE and upon verification no DOE has found no major grievance had been raised.			
FAR closed.			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	03
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
Following FARs have been raised during preliminary review of the project: FAR # 3: Please make sure that PD can supply supporting data for all parameters, especially those related to SDG 13 (which are two levels now in the GS-PDD) in time for following reviews, after the lift of Pandemic measures.			

Project Participant's response	Date:	02/09/2022
Monitoring parameters of SDG 7, SDG 8 and SDG 13 have been included in GS PDD. The data source is clearly mentioned for each parameter. The following data sources have been mentioned in GS PDD for SDG parameter: 1. SDG 7 – Monthly Generation Report 2. SDG 8 – Employment Contract, Attendance Register and Training Records 3. SDG 13 – Emission Reduction Spreadsheet on the basis of monthly generation.		
Documentation provided as evidence by Project Participant		
Monthly Generation Report, Attendance Register and Training Record and Emission Reduction Spreadsheet.		
Auditor's assessment comment	Date:	05/09/2022
PP has submitted the Monthly generation report, Attendance Register and Training Record and Emission Reduction Spreadsheet covering all the monitoring parameters of SDG7, SDG8 & SDG13. Which have been verified by VVB. FAR closed.		

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	04
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
Following FARs have been raised during preliminary review of the project: • FAR # 4: Under Appendix 1 Principle 6.1 - mitigations applicable with respect to national and international regulations shall be Included for labour conditions and applied under D.1 for monitoring. VVB shall validate the same.			
Project Participant's response	Date:	02/09/2022	
The project activity maintains the national and international law regarding employment and labour conditions and the same is mentioned in Section B.7.1 of PDD under SDG 8 Monitoring Parameter.			
Documentation provided as evidence by Project Participant			
Updated PDD.			
Auditor's assessment comment	Date:	05/09/2022	
PP has submitted the updated PDD version 03 dated 29/08/2022 which mentions that project activity maintains the national and international law regarding employment and labour conditions same has been verified by VVB. FAR closed			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	05
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
Following FARs have been raised during preliminary review of the project:			

FAR # 5: Under Appendix 1 Principle 8.2 – please discuss land rehabilitation plans and ground studies with respect to construction and excavation works, clearance of vegetation and stripping of topsoil - even though It Is barren land; with related mitigations and include the same under D.1 for monitoring for the first verification. VVB shall validate the same via site observation and Interviews since no EIA or CDM monitoring conducted for the project activity.		
Project Participant's response	Date:	02/09/2022
The project activity is located in a barren land and it doesn't constitute any public place. Hence no land rehabilitation plan and ground studies with respect to construction and excavation works, clearance of vegetation and stripping of topsoil are required to monitor. This place is only used for project activity and not for any type of public works or public transport.		
Documentation provided as evidence by Project Participant		
Not Applicable as monitoring is not required.		
Auditor's assessment comment	Date:	05/09/2022
VVB during site visit and via interviews validated that the project has been constructed on a barren land hence no land rehabilitation plan and ground studies with respect to construction and excavation works, clearance of vegetation and stripping of topsoil are required to monitor.		
FAR closed.		

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	06
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	13/07/2022
Following FARs have been raised during preliminary review of the project: FAR # 6: Principle 9.4 – please discuss dust emissions, road rehabilitation plans -If any Is damaged during equipment transfer, etc.-, domestic waste disposal procedure during construction works and include the relevant mitigations under D.1 for monitoring for the first verification. VVB shall validate the same via site observation and Interviews since no EIA or CDM monitoring conducted for the project activity.			
Project Participant's response		Date:	02/09/2022
The project activity is located in a barren land and it doesn't constitute any public place. Hence no road rehabilitation plan and dust emission are required to monitor. This place is only used for project activity and not for any type of public works or public transport. The road is not used by public hence no maintenance is required for the interest of local person. Also, the transformer oil is refined and reused. Hence, no waste oil disposal is required for this project activity.			
Documentation provided as evidence by Project Participant			
Not Applicable as monitoring is not required.			
Auditor's assessment comment		Date:	05/09/2022
VVB during site visit and via interviews validated that the project has been constructed on a barren land hence no road rehabilitation plan and dust emission are required to monitor. Moreover, the place is used only for project activity and not for any type of public work or public transport hence no maintenance is required for the interest of local person. Also, the transformer oil is refined and reused. Hence, no waste oil disposal is required for this project activity.			
FAR closed.			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	07
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Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	31/01/2023
Following FARs have been raised during preliminary review of the project: FAR#7: Validating VVB shall provide opinion on the conducted stakeholder consultation that Is Incorporated with feedback round. Please address Stakeholder Consultation Requirements para 3.6.10/11 for Invitees, public access to documentation and availability of comment means.			
Project Participant's response		Date:	xx/xx/xxxx
-			
Documentation provided as evidence by Project Participant			
-			
Auditor's assessment comment		Date:	23/02/2023
During Design certification, VVB team verified that stakeholder consultation meeting was held on 30/10/2021 for which invitation was sent on 27/09/2021. Moreover, Stakeholder feedback round was carried over for 60 days from period 06/10/2021 to 05/12/2021. During SFR period, PD followed the Stakeholder consultation requirement. Thus accepted. FAR closed.			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	08
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	31/01/2023
Following FARs have been raised during preliminary review of the project: CP start date and duration shall be appointed via design certification date, considering technical lifetime of the project. No information related to 20 years of life cycle is found on provided product brochure. VVB shall validate the lifetime with evidence supporting.			
Project Participant's response		Date:	xx/xx/xxxx
-			
Documentation provided as evidence by Project Participant			
-			
Auditor's assessment comment		Date:	23/02/2023
VVB team has verified the lifetime of WW-53 WTG with technical specification document issued by OEM i.e., Wind World (India) Ltd and from industry practice. FAR closed.			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	09
Raised by:	Sustain Cert	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	31/01/2023
Following FARs have been raised during preliminary review of the project:			

A transition project that has completed 5 years of its valid crediting period under CDM shall submit the transition request together with the Crediting Period renewal request.		
Project Participant's response	Date:	xx/xx/xxxx
-		
Documentation provided as evidence by Project Participant		
Transition Request Form along with Renewal request		
Auditor's assessment comment	Date:	23/02/2023
PP has provided combined transition request with crediting period renewal request. FAR closed.		

Appendix 2: Audit Team CVs

Name	SHORT CV. BACKGROUND INFORMATION
Mr. Pankaj Kumar	Mr. Pankaj Kumar worked as team leader – Bihar for South Asia Climate Proofing and Growth Development (CPGD) – Climate Change Innovation Programme (CCIP) supported by DFID that seeks to mainstream climate change resilience into planning and budgeting at the national and sub-national level in India, Pakistan, Nepal, and Afghanistan. Pankaj Kumar has worked previously with IL&FS Infrastructure Development Corporation and BUIDCO (Bihar Urban Infrastructure Development Corporation), Govt. of Bihar as Environmental Specialist for WB & ADB funded projects. Prior to this, he worked with Carbon Check (UNFCCC accredited DoE), Johannesburg, RSA as Team Leader for validation, verification of around 100 GHG projects in Asia, Africa, USA, Asia Pacific & Americas. Pankaj is accredited Lead Auditor, Validator, Verifier and Technical Expert for Sectoral Scope/Technical Area – 1.1, 1.2, 3.1 & 13.1 by UNFCCC VVB (Designated Operational Entity), APPLUS, Spain. He is also member of task force on climate change & human health, Health Department, GoB and on roster of UNICEF's WASH experts. He is an experienced, qualified and result oriented Environment Professional having more than 14 yrs. of relevant experience in Climate Change (Mitigation & Adaptation), Environmental Due Diligence, Disaster Risk Reduction, Validation and Verification of GHG project under CDM, Verified Carbon Standard, Gold Standard & Social Carbon Standard, Brazil. He provides technical support for environmental investigative, consultative and remedial projects involving air, water and soil, Waste management, EIA, Environmental Compliance, ISO 14001, OHSAS 18001, GHG accounting (ISO 14064) and Carbon foot printing. Pankaj Kumar is Masters in Environment Management from Forest Research Institute (University), I.C.F.R.E, Dehradun, which is Centre of Excellence in South East Asia for Forestry education & research and PGDEL from National Law School of India University, Bangalore (India).
Mr. Simon Shen	Mr. Simon Shen (Master's Degree in Thermal Energy Engineering, Bachelor's Degree in Environmental 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 review with Applus+, apart from the years of experience working as GHG Auditor and ISO 9001/14001 in TUV SUD for 3.5 years before he joined Applus+. Mr. Simon Shen has extensive experience also as former Applus+ Shanghai CDM Technical Manager. Mr. Simon Shen is based in Shanghai, China. Mr. Simon Shen participate in the project's technical review team.