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

Project Title:	400 MW Solar Power Project at Bhadla, Rajasthan
GS project ID:	GS 7071
Internal ID:	TQC 21523
Customer:	EKI Energy Services Limited (PP: Adani Renewable Energy DEVCO Private Ltd.)
Date:	06/01/2025
Revision:	02

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SUMMARY			
Reference No.	**Date** *(first version)*	**Revision No.**	**Date** *(last version)*
A+SH_SYST_TQC_GS_RCP_21523	11/12/2023	02	06/01/2025
Client	EKI Energy Services Limited		
Project Title	400 MW Solar Power Project at Bhadla, Rajasthan		
Project Participants	Adani Renewable Energy DEVCO Private Ltd. (Formerly known as SB Energy Pvt. Ltd.)		
Project Location	The project is located in village Bhadla, District Jodhpur, Rajasthan, India.		
Contact Person	Mr. Manish Dabkara		
GS4GG Version: GS4GG, Ver. 1.2 GS4GG Activity Requirements: Renewable Energy Activity Requirements 1.4 GS4GG option requirement: GHG Emissions Reduction & Sequestration Product requirements, version 2.2 GS4GG option requirement: Renewable Energy Label Product Requirements, version 1.2 Applied Methodology/5/ Version: ACM0002, Version 21.0 CDM: Grid-connected electricity generation from renewable sources --- Version 21.0 (unfccc.int) The following tools and guidance have been followed (References): • Tool 01: Tool for the demonstration and assessment of additionality[1], version 07.0.0/10/ • Tool 07: Tool to calculate the emission factor for an electricity system[2] ,version 07.0/9/ • Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period – Version 3.0.1[3] • Tool 24 – Common practice (Version 03.1, EB 84, annex 7)[4] • Tool 27 - Investment analysis - Version 9.0.05 (EB 101, Annex 02)			GS4GG Principles and Requirements V 1.2 UNFCCC CDM Sectoral Scope: 1 GS4GG Scope : 2 Technical Area: 1.2
Registered GS PDD/2/, version 04.0 dated 25/04/2021 GS4GG Initial PDD/1/ for Design Certification renewal, version: 01, date: 14/09/2023			GS4GG Final PDD/1/ Version: 08.1 Date: 31/12/2024
Estimated Annual Emission Reductions: 906,917 tCO_2e per year			

[1] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf
[2] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf
[3] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf
[4] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-27-v11.0.pdf
[5] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-27-v9.0.pdf

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

Estimated Sustainable Development Contributions

Sustainable Development Goals Targeted	SDG Impact	Estimated Annual Average	Units or Products
SDG 7: Affordable and Clean Energy	MWh of renewable energy generated	974,133	MWh/annum
SDG 8: Decent Work and Economic Growth	Trainings Employees	01 10	No. of Trainings/annum/ 13/ No. of Employees
SDG 13: Climate Action	Emission Reductions	906,917	tCO_2/Annum (GS VERs)

Design Certification Summary

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by EKI Energy Services Limited to perform validation for the GS4GG Design Certification Renewal of "400 MW Solar Power Project at Bhadla, Rajasthan" applying the methodology/5/ ACM0002, Version 21.0.

The management of EKI Energy Services Limited is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

A desk review and a remote audit have been conducted to verify the data submitted in the GS4GG PDD/1/. Applus+ Certification confirms the following have been reviewed:

a. The GS4GG PDD;
b. The applied baseline and monitoring methodology/5/ and related tools;
c. Gold Standard for Global Goals "Principles and Requirements" Version 1.2;
d. 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 applicable CDM requirements and requirement of Gold Standard. The validation report is finalized based on the assessment of the GS4GG PDD, and applying standard auditing techniques including but not limited to document review, follow up actions (e.g. site visit, telephone or e-mail interviews) and also the review of the applicable approved methodology/5/ and underlying formulae and calculations.

The report and the annexed validation checklist describe a total of 05 findings which include:

- 02 Corrective Action Requests (CARs);
- 03 Clarification Request (CLs/CRs);
- 02 Forward Action Requests (FARs)

The PP has responded to these findings by modifying the GS4GG PDD and providing adequate additional explanations and evidence. Applus+ Certification confirms that all the findings have been "closed out" before submitting the request for renewal of design certification to the GS4GG.

As a summary of the validation, the review of the GS4GG PDD and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence for the determination of the project's fulfilment with all stated criteria. In our opinion, the project meets all relevant requirements of Gold

Standard. Therefore, Applus+ Certification recommends the project for renewal of design certification by the GS Registry as GS VER project.

ASSESSMENT TEAM		
Team Members	**Type of Resource[6]**	**Organization** *(for OEs)*
Lead Auditor/ Technical Expert: Mr. Deepak Pundlik	☐ IR ☐ EI ☒ OE	M/s True Quality Certifications Private Limited
Technical Reviewer: Dr. N. Premjit Singh	☒ IR ☐ EI ☐ OE	-

[6] IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

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ABBREVIATIONS	
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
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
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
OFN	Ongoing Financial Need
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
VCU	Verified Carbon Unit
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

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1. INTRODUCTION

M/s. EKI Energy Services Limited has appointed Applus+ Certification to perform a validation for design certification renewal of "400 MW Solar Power Project at Bhadla, Rajasthan"[7] (hereafter referred to as the project activity). This validation report summarises the findings of the validation of the project, performed on the basis of requirement of Gold Standard and UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM/GS Executive Board.

The project activity primarily aims at reducing Greenhouse Gas (GHG) emissions through utilisation of renewable energy technology for generation of electrical energy. The electricity generated from the project activity (approximately 974,133 MWh annually) will displace equivalent electricity generation in grid connected power plants. The project activity will reduce the anthropogenic GHG emissions (approximately 906,917 tCO_2e annually and 4,534,587 tCO_2e throughout the crediting period of 5 years) associated with the equivalent amount of electricity generation from grid connected power plants which are predominantly fossil fuel based in the India[8].

The project activity is promoted by Adani Renewable Energy DEVCO Private Limited (formerly known as SB Energy Pvt. Ltd.) and exports 400 MW of electricity generated using Solar power plant connected to the Indian electricity grid. The project is promoted through 2 separate SPVs each having installed capacity as below:

Adani Solar Energy Jodhpur three private limited – 300 MW

Adani Solar Energy Jodhpur four private limited – 100 MW

This solar energy-based power project of 400 MW capacity is installed at village Bhadla, District Jodhpur, Rajasthan, India as confirmed during remote audit and based on google maps software and registered PDD/2/.

The project activity is the installation of a new grid connected renewable power plant and this is not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs.

The project was registered with VERRA with project ID – 1805[9] and the SPVs mentioned above were shown as a part of the project. The project webpage was checked to confirm that PP has claimed VCUs as below:

Sr. No.	Monitoring period
1	02/02/2020 to 30/11/2021
2	01/12/2021 to 30/06/2021
3	01/07/2022 to 31/01/2023
4	01/02/2023 to 31/08/2023

However, the review of registered VCS PD has confirmed that the current project activity (i. e. 02 SPVs) were not commissioned at the time of VCS project registration. And the review of all

[7] https://registry.goldstandard.org/projects/details/1455
[8] https://cea.nic.in/wp-content/uploads/installed/2023/06/IC_June_2023_Updated.pdf
[9] https://registry.verra.org/app/projectDetail/VCS/1805

monitoring reports (i. e. 04 numbers as mentioned in the above table) have confirmed that, all of these reports mention the SPVs are part of the registered GS project and hence no emission reductions are claimed for them as a part of VCS project issuance request.

The details of the project and the state of installation are mentioned in the following table:

Name of the Project Promoter	Capacity (MW)	Connection with Grid	Country	Usage
Adani Solar Energy Jodhpur three private limited	100 MW	Indian grid	India	Sale to grid
	100 MW			
	100 MW			
Adani Solar Energy Jodhpur four private limited	20 MW			
	20 MW			
	30 MW			
	30 MW			

The specific geographical coordinates of the plants are as follows which were confirmed based on geo-tagged photographs submitted to VVB and registered PDD[/2/].

Sl. No.	Plant Capacity	Latitude	Longitude	Tehsil / District	Village	State
1	100 MW	27°29'04.49"N to 27°28'43.00"N	71°58'54.09"E to 71°58'56.00"E	Jodhpur	Bhadla	Rajasthan
2	100 MW	27°29'29.04"N to 27°29'34.00"E	71°59'15.89"E to 71°59'22.00"E			
3	100 MW	27°28'10.08"N to 27°27'57.00"N	72°00'02.97"E to 72°00'31.00"E			
4	20 MW	27°32'08.45"N to 27°31'56.00"N	71°57'19.10"E to 71°57'32.00"E			
5	20 MW	27°32'25.47"N to 27°32'26.00"N	71°57'24.23"E to 71°57'50.00"E			
6	30 MW	27°31'55.48"N to	71°57'58.23"E to			

		27°31'42.00"N	71°58'06.00"E			
7	30 MW	27°32'21.8"N to 27°32'25.00"N	71°57'47.54"E to 71°57'15.00"E			

1.1 Objective

The purpose of a validation for design certification renewal is to have an independent third-party assessment of the GS4GG PDD[/1/] 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 renewal of design certification of the project activity rests at the GS and the Parties involved.

1.2 Scope

The scope of current validation for design certification renewal is defined as an independent and objective review of the project PDD[/1/], 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 21.0[/5/]. The validation is based on the requirements in the GS4GG Validation and Verification Standard version 01 and CDM validation and verification standard for project activities, version 03.

The validation is not meant to provide any consulting to project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the PDD[/1/].

2. METHODOLOGY

The project assessment is based on the GS4GG validation and verification standard, version 01, Gold Standard requirements for GS4GG, applicable CDM methodology, tools and CDM validation and verification standard for project activities, version 03. This validation 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+ Certification, the members of the assessment team carried out:

1. A desk review of the PDD[/1/];
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 audit finding is as below:

Validation Checklist Table 3: Resolution of Audit Findings			
Type:	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	
Raised by:			
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 evidence 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 CARs/CLs/FARs 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 the 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 qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- 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. Deepak Pundlik	LA/TE	YES	YES	NO	YES
Dr. N. Premjit Singh	TR	YES	YES	YES	YES

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

2.2 Document review

The Gold Standard PDD/1/ submitted by the PP was reviewed against the approved methodology/5/ 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 Section 4 of this report.

2.3 Follow up Interviews

This is design certification renewal validation. As per clause 3.2.1 of GS site visit and remote audit Requirements and procedures, version 1.0 "*A physical site visit by VVB is not mandatory at the validation (Design Certification or Design Certification Renewal) of a project*.". Hence, the audit team has conducted remote audit interview corresponding to the PA as follows:

A complete desk review of the PDD/1/ as well as all applicable country legal requirements and supportive evidence have been checked by the validation team.

- Validation team has performed online interviews with PP in order to check implementation, current situation, evaluation of data management, QA/QC system, project technology, training provided/13/, monitoring, calibration etc. Interview questions were filled as per Validation team interview checklist. Cross checks between information provided by interviewed personnel (i.e. by checking sources) to ensure that no relevant information has been omitted.

- Validation team has performed interviews with randomly selected local stakeholders/3/ to check the monitoring of GS sustainable parameters like employment and training/13/, environmental and other relevant issues.

- Cross-check evaluation, for information received from interviews, under the scope of all information and references provided in the PDD/1/ and supporting documents.

Details of interviewees, topics covered and additional information presented below:

Interviewed Personnel	Functions	Organization	Date	Subject
Mr. N. P. Singh	PP representative (General Manager)	Adani Renewable Energy DEVCO Private Limited	03/10/2023 Remote audit (video conference)	General aspects of the project, Quality management system, Monitoring data management, Data analysis, Implementation of the project, GHG emission reduction calculation, involved personnel and responsibilities, Training/13/ and practice of the operational personnel, Monitoring data management, Maintenance, Compliance to regulatory requirements, Environmental and social issues, Projects contribution to sustainable development. continual stakeholder engagement procedures followed, grievance mechanism, grievance register at site
Mr. Ankit Sethiya	Sr. Manager	EKI Energy Services		
Mr. Ajit Dangi		Local stakeholder		
Mr. Mohanlal Dhai		Local stakeholder		
Mr. Jaswant Oswal		Local stakeholder		
Mr. Aabheer Barjatya		Local stakeholder		
Ms. Yashoda Bhutani		Local stakeholder		

Stakeholder's name: Jaswant Oswal
Question: The project is operational for more than 5 years. Did you find any benefit out of the project?
Answer: It has led to employment generation for the local villagers and have helped to alleviate their standard. The project developer has conducted training/13/ camps for the local peoples.

Stakeholder's name: Mohanlal Dhai
Question: Do you think solar projects are good for environment and local community? Have you observed any ill effects due to the project?
Answer: The solar project has no impact on soil, water and air in our region. It is good project as it is renewable energy project. The project has provided jobs to local people.

2.4 Resolution of Clarification and Corrective Action requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification positive conclusion on the GS 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 most recent GS4GG PDD/1/ serves as the basis for the final assessment presented.

2.5 Internal Quality Control

As the final step of a validation for design certification renewal, 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 the 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

M/s Adani Renewable Energy DEVCO Private Ltd. is the project developer and M/s EKI Energy Services Limited is the project representative from the host party - India. The host country involved is a party to the Kyoto Protocol and meets requirements to participate in the Gold Standard.

3.3 Scale of the project

The project activity is identified as a Large-scale project applying a Large-scale methodology ACM0002, Version 21.0/5/. The total capacity of the power project is 400 MW as validated from the submitted Power purchase agreement/15/ and commissioning certificates/16/. Since the design capacity of the project activity is more than 15 MW, which is a 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 latest applicable methodology ACM0002, Version 21.0/5/ and confirmed that the project qualifies the requirement of the latest methodology also (i.e. scale, applicability, baseline, additionality and monitoring).

a) Type of project: The project activity involves electricity generation using solar power to reduce atmospheric CO_2 emission by replacing equivalent amounts of electricity from the electricity grid of India. The project type is identified as a renewable energy project in section A.6 of the GS4GG PDD/1/. 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. The project activity generates and supplies renewable electricity to the electricity grid thereby displacing the electricity which would have generated in most probable case by fossil fuel-based power plants connected to the grid[10].

[10] https://cea.nic.in/wp-content/uploads/installed/2023/06/IC_June_2023_Updated.pdf

3.4 Greenhouse Gases

The project activity leads to displacement of electricity generation from fossil fuel-based power plants connected to the Indian electricity grid by renewable energy generated using solar power. The operation of the project activity will result in reduction of carbon-dioxide from the atmosphere due to displacement of electricity in the grid by 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		Gas	Included ?	Justification/Explanation
Baseline	Grid connected electricity generation	CO_2	Yes	Main emission source
		CH_4	No	Minor emission source
		N_2O	No	Minor emission source
		Other	No	No other emissions are emitted from the project
Project	Greenfield Solar 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_2O	No	Project activity does not emit N_2O
		Other	No	Project activity does not emit other forms of GHG emissions

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 but is registered with VERRA as a VCS grouped project. During validation, PP confirmed that this Project is developed as a standalone GS VER Project and submitted a declaration that there will not be double accounting of emission reduction for the project activity for the second crediting period.

The current project activity is part of VCS registered project (VCS ID: 1805[11]) with a fixed crediting period as 27/02/2017 to 26/02/2027. The project has claimed issuance under VCS up to 31/08/2023[12]. However, the VVB has checked and confirmed the following based on the registered VCS PD and subsequent monitoring reports with the latest being for the monitoring period as 01/02/2023 to 31/08/2023.

[11] https://registry.verra.org/app/projectDetail/VCS/1805
[12] https://registry.verra.org/app/search/VCS?programType=ISSUANCE&exactResId=1805

a. At the time of VCS project registration, the SPV[13]s which are 'project activity' for the current GS4GG project were yet not commissioned.

b. Subsequently, project developer registered these SPV as 'the project activity' under the current GS4GG project.

c. Each of the monitoring report mentions that these SPVs are registered as a GS4GG project and no issuance is claimed for these SPVs.

d. Subsequently, the Project Developer has proceeded with deregistration of these SPVs from the registered Verra project. The de-registration certificate is publicly available on the VERRA project page[14]. Same has been checked by the VVB and was found correct.

Thus, VVB confirms that the current project is now standalone GS VER project and is not registered with other registries.

As a part of performance certification for the most recent verification, 03 FARs were raised by Sustain Cert which are closed during the last verification and no FAR is open. 02 FARs which were raised as a part of performance review are now added in the appendix 1.

3.6 Public announcement

Assessment team is in opinion, taking note of the validation report and PDD/1/ that the incentive in the form of carbon credits was seriously considered in the decision to proceed with the project activity. The project is registered under GS mechanism.

3.7 Project Boundary

As per ACM0002, Version 21.0/5/ i.e. latest version of methodology applied as available on CDM website - "*The spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the GS project power plant is connected to*". The project boundary includes the Solar power project, sub-station, electricity grid and all power plants connected to the grid. The project activity will evacuate power to the Indian electricity grid. Therefore, the entire electricity grid and all connected power plants have been considered in the project boundary for the current GS project activity. The same is found appropriate by the assessment team during the remote validation audit and found correct.

3.8 Baseline Identification

Being a grid connected large scale solar energy generation project, PP developed the project based on the Methodology ACM0002, Version 21.0/5/. As per the methodology: "*If the project activity is the installation of a Greenfield power plant, the baseline scenario is electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-*

[13] Adani Solar Energy Jodhpur three private limited (earlier known as SB Energy One Private Limited) and Adani Solar Energy Jodhpur four private limited (earlier known as SB Energy three Private Limited)
[14] https://registry.verra.org

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"[9].

The project activity involves setting up of solar energy power project to harness the power of solar energy 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 local electricity grid, which is fed mainly by fossil fuel fired plants. In the absence of the project activity, the equivalent amount of power would have been drawn from the grid. Hence, the baseline for the project activity is the equivalent amount of power from the electricity grid. As the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline and pre-project scenario is the same.

Methodology Procedure as per tool 11 for the "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)" is as follows:

As per tool 11 "Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period".

Step 1: Assess the validity of the current baseline for the next crediting period The "Procedures for the renewal of the crediting period of a registered CDM project activity" approved by the CDM Executive Board require assessing the impact of new relevant national and/or sectoral policies and circumstances on the baseline.

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 was 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 would continue to replace equivalent amount of electricity at grid. Hence, the same baseline as identified in the previous crediting period is still valid for the project. Therefore, the assessment of the changes in market characteristics is not required for the renewal of the project's crediting period under GS4GG.

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 not 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 CDM 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 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.

As per the approved consolidated Methodology ACM0002 (Version 21.0, EB 116,) "If the project activity is the installation of a Greenfield power plant, the baseline scenario is 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 07 : Tool to calculate the emission factor for an electricity system" Version 07.0.0.

The project activity involves setting up of solar power projects to harness the power of sun 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. Hence, the baseline for the project activity is the equivalent amount of power from the Indian grid.

The combined margin ($EF_{grid,CM,y}$) is the result of a weighted average of two emission factors 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. Government of India through Central Electricity Authority (CEA)/19/ publishes database containing the necessary data on CO_2 emissions for all grid-connected power stations in India. PP has used the latest version of CEA database i.e. version 18[15] published in December, 2022.

[15] https://cea.nic.in/cdm-co2-baseline-database/?lang=en

The values for the parameters were calculated as below based on the CEA database[19]:

Parameter	Value	Nomenclature	Source
$EF_{grid,CM,y}$	0.9310 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 published by Central Electricity Authority (CEA)[19], Government of India
$EF_{grid,OM,y}$	0.9518 tCO_2/MWh	Operating margin CO_2 emission factor for the project electricity system in year y	Calculated as the last 3-year (2019-20, 2020-21 and 2021-22) generation-weighted average, sourced from Baseline CO_2 Emission Database, Version 18.0, December 2022 published by Central Electricity Authority (CEA)[19], Government of India
$EF_{grid,BM,y}$	0.8687 tCO_2/MWh	Build margin CO_2 emission factor for the project electricity system in year y	The value for the most recent year i. e. 2021-22 sourced from Baseline CO_2 Emission Database, Version 18.0, December 2022 published by Central Electricity Authority (CEA)[19], Government of India

3.9 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 registered GS PDD[1]. The emission factor of the grid, in the GS PDD, has been calculated in-line with the provisions of applied methodology ACM0002, Version 21.0[5]. The latest applicable version of "Tool to calculate the emission factor for an electricity system" is version 07.0[9] which is used for calculation of emission factor which is found appropriate.

The applicability criteria of ACM0002, version 21.0 is detailed out as below which was assessed and confirmed by VVB:

Applicability 1: Assessment team checked that the project activity is installation of a new grid connected solar 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 project activity is an installation of a new grid connected solar power plant/ unit and hence a criterion under point (a) is met. The project does

not involve any capacity additions, retrofits or replacements and therefore this criterion under point (b) is not applicable.

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

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

Applicability 5: Assessment team checked that the project activity is an installation of a new grid connected solar power plant/ unit and not Hydro power plant, therefore this criterion is not applicable for this project activity.

Applicability 6: Assessment team checked that the project activity is installation of a new grid connected solar 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 solar power plant/ unit and not a biomass fired plant, therefore criterion described in point (b) is not applicable to the project activity

Applicability 7: Assessment team checked that the project activity is a new grid connected solar power plant/ unit and not a retrofit, replacement or capacity additions and therefore this criterion is not applicable to 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 21.0[/5/] is applicable to the project activity.

Applicability conditions of Tool 07 "Tool to calculate the emission factor for an electricity system", version 07[/9/]:

- OM, BM and CM are estimated using the tool under section B.4 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.6.1 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 solar power project and not a hydro power plant. Therefore, this criterion is not applicable for the project activity.

Assessment team referred Methodological tool – Tool 11, 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 to check the originality of the baseline. Following are the observation of the assessment team regarding selected baseline for the project activity in this present 2nd renewable crediting period:

Applicability conditions of Tool 11, 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[/11/]

Step 1.1 (EB 66, Annex 47): Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies

The baseline for the project activity is the electricity delivered to the grid by the project activity which would have otherwise been generated by the operation of grid connected power plants and by the addition of new generation sources into the grid. The project activity is claiming the emission reductions from the net exported electricity to the grid only. In absence of project activity this quantity of electricity would have been generated from the electricity grid mix (mainly fossil fuel).

Ministry of Power, Government of India has published installed generation capacity at https://powermin.gov.in/en/content/power-sector-glance-all-india The database mentions that fossil fuel is the main source of energy generation with total installed capacity at 56.80%. Renewable energy sources account for 41.40% of which solar capacity is only 16.10%. Thus, the identified baseline of fossil fuel plant dominates the electricity generation units and the baseline remains unchanged for the present (2nd) crediting period since there is no policy been revised and/or is currently in force as well, therefore the baseline scenario is still in compliance with all the relevant mandatory national and/or sectoral policies.

Step 1.2 (EB 66, Annex 47): Assess the impact of circumstances

There are no new circumstances that can impact the original baseline. The baseline emission factor value is however updated based on the current data available for the grid by PP which is found appropriate.

Step 1.3 (EB 66, Annex 47): 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 per the "Tool to determine the remaining lifetime of equipment", the remaining lifetime of the equipment is the time for which the existing equipment can continue to operate before it has to be replaced/discarded. As per this Tool, Project participant can use one of the following options to determine the remaining lifetime of the equipment:

(a) Use manufacturer's information on the technical lifetime of equipment and compare to the date of first commissioning[/16/];
(b) Obtain an expert evaluation;
(c) Use default value

The project activity started commercial operation on 21/09/2018 (Commissioning of first solar plant from current project activity) and since commissioning[/16/], the project activity is running

satisfactorily. As per Manufacturer specification and Registered GS PDD/2/, the technical lifetime of power plant is 25 years (As per 1st CP). Thus, the remaining lifetime of equipment's exceeds the crediting period for which renewal is requested. Thus, as per manufacturers information, the remaining lifetime of equipment is exceeding crediting period as per option 1 of Tool 10: Tool to determine the remaining lifetime of the Equipment, version 1.

VVB confirmed that the below conditions are fulfilled:

(i) The equipment has been operated and maintained according to the recommendations of the equipment supplier;

(ii) There are no periodic replacement schedules or scheduled replacement practices specific to the industrial facility, that require early replacement of equipment before the expiry of the technical lifetime; and

(iii) The equipment has no design fault or defect and did not have any industrial accident due to which the equipment cannot operate at rated performance levels.

As per option (a), evaluating the remaining lifetime for the type of equipment has been approached and requested to determine the remaining lifetime of the equipment. The assessment of remaining life time of the equipment's had been done and confirmed that the remaining technical lifetime of the equipment of the project activity exceeds the crediting period for which renewal is requested. As the remaining technical lifetime of the equipment is not less than the end of the crediting period or which renewal is requested, the current baseline holds good for this crediting period too.

Step 1.4 (EB 66, Annex 47): 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 CDM project activity."

The project chosen ex-ante default value i.e., Emission Factor. As per the Guidance given in Tool the emission factor is updated as follows:

- The operating margin is calculated as per the CEA database, version 18.0/19/ Government of India and the requirements of "Tool to calculate the emission factor for electricity system" version 07/9/. The operating margin calculation is checked by the assessment team and found correct.

- The build margin is considered as per the CEA database, version 18.0/19/ Government of India and the requirements of "Tool to calculate the emission factor for electricity system" version 07/9/. The value considered is checked by the assessment team and found correct.

- The Combined margin calculation is carried out as per "Tool to calculate the emission factor for electricity system" version 07[/9/]. The value considered is checked by the assessment team and found correct.

The emission factor is fixed ex-ante and thus will be used for the complete 2nd renewable crediting period and for entire verification conducted under 2nd renewable crediting period.

Application of Steps 1.1, 1.2, 1.3 and 1.4 confirmed that the current baseline is valid for the Second crediting period but data and parameters need to be updated.

Therefore, step 2 is applied

Step 2.1: Update the current baseline
This step is applicable since the Steps 1.1, 1.2, 1.3 and/or 1.4 showed that the current baseline needs to be updated. As evident from the explanation provided above the baseline scenario remains unchanged.

Updated the baseline emissions based on the latest approved version of the methodology applicable to the project activity for the subsequent crediting period, without reassessing the baseline scenario.

Step 2.2: Update the data and parameters
The updated Data and/or parameter are followed for estimating the baseline emissions. Hence as per ACM0002, version 21.0[/5/] (latest Methodology), the baseline of the project is as follows:

Project activity is the installation of a Greenfield power plant, the baseline scenario is 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".[/9/]

The above selected baseline is correct and thus applicable to the project activity and in line with approved methodology for the applied renewable of crediting period.

The Design Certification Review for GS 7071 has been approved by GS, while the start date of the project activity being 12/03/2018, as mentioned under section C.1 of the GS PDD. Accordingly, the Project Developer (PD) was advised to reference the registered documents of GS 7071 to determine the GS RCP and align the crediting period dates accordingly.

Moreover, as confirmed by the VVB, the PD has not sought any project transition but has instead submitted an application for a new design certification under GS. This includes a reassessment of additionality, the baseline scenario, and the applicability of the methodology and associated tools employed for the project. As this constitutes a new GS project, the crediting period start date has been aligned with the commissioning date of the project activity, which is found to be consistent with the clause 10.2.1 of the GS4GG GHG Emissions Reductions & Sequestration Requirements v.3.0, as checked by the VVB.

The host country - India has ratified the Kyoto Protocol on 05/02/2009. Indian National Focal Point to the UNFCCC is the Ministry of Environment, Forest and Climate Change (MoEF&CC) which has defined certain sustain development parameters. The project's contribution towards sustainable development has been addressed based on the following sustainable development aspects:

I. Social well-being:

The project activity provides job opportunities to local people during erection, commissioning/16/ and maintenance of the solar plant. Frequency of visiting villages and nearby areas by skilled, technical and industrialists increase due to installation/site visit/operation and maintenance work related to solar project. This directly and indirectly positively affects the economy of villages and nearby areas.

II. Economic well-being:

The GS project activity generates permanent and temporary employment opportunities within the vicinity of the project. The electricity supply in the nearby area improves which directly and indirectly improves the economy and lifestyle of the area.

III. Environmental well-being:

The solar 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:

The project activity is a step forward in harnessing the untapped solar energy potential and further diffusion of the solar technology in the region. The project activity leads to the promotion and demonstrates the success of solar projects in the region which further motivate more investors to invest in such projects. Hence, the project activity leads to technological well-being.

Assessment team checked the technical parameters of the project equipment through solar technical specifications/17/ shared by the PD, registered GS PDD/2/ and as confirmed during remote validation audit. PD confirms that the details as mentioned in the most recent GS4GG PDD/1/ are correct.

The project aims to harness solar energy through total installation of 400 MW solar project consists of 3 plants of 100MW, 2 plants of 30MW and remain 2 plants of 20 MW installed by two SPVs. The details presented in the below table were confirmed during remote audit and from registered GS PDD/2/.

The solar technology module used in the project activity are of Jinergy solar in. The technical specification of the Jinergy solar in are as follows which were confirmed during the remote audit and based on submitted technical specifications/17/:

Parameter	Specification
Capacity of the Project	100*3 MW
Technology used	Polycrystalline
Rating of Solar Modules	325 to 330 Wp
Angle from horizontal at which the array is installed	20°
Number of modules of each type	325 Wp- 2,64,840 Nos 330 Wp- 1,78,650 Nos
Source of modules installed of each type	Jinergy solar in
Number of invertors installed	32 numbers
Rating of invertors	3.125 MVA
Date of installation of full capacity	19-09-2018
PV Arrays	100%
Invertors	100%
Transformers	100%

Parameter	Specification
Capacity of the Project	30 * 2 MW and 20*2 MW
Technology used	Polycrystalline
Rating of Solar Modules	325 to 330 Wp
Angle from horizontal at which the array is installed	20°
Number of modules of each type	325 Wp- 34,920 Nos 330 Wp- 60,250 Nos
Source of modules installed of each type	Jinergy solar in
Number of invertors installed	16 numbers
Rating of invertors	3.125 MVA
Date of installation of full capacity	04-10-2018
PV Arrays	100%
Invertors	100%
Transformers	100%

Change in the plant load factor (PLF) value for the project:

During the assessment, VVB has observed that for the 1st crediting period, PD has repeatedly achieved higher PLF leading to higher generation than the value mentioned at the time of project's registration . The details about higher generation are provided in section B.5.2 of the latest version of the PDD. Since, PD has achieved higher PLF throughout the 1st crediting period, a design change has been applied by PD to consider this PLF as the expected PLF for the 2nd crediting period. VVB has confirmed that with the revised PLF, the project is still additional as depicted in section B.5.2 of the PDD and assessed below in appendix 6 of this document.

Principle 2: Safeguarding Principles

The Safeguarding principles assessment is provided in appendix 4.

The safeguarding principles relevant to the project activity are justified by PP based on supporting web links and references wherever applicable. These safeguarding principles assessment is validated through references given by PP, during the remote audit.

PP has decided to monitor waste management with special focus on hazardous waste and E-waste which are part of safeguarding principle 9.5.

1. Solid waste pollution from Hazardous wate: The hazardous waste generated as a part of project activity in the form on defunct/discarded solar modules etc. will be stored, treated and disposed of in line with applicable host country law i. e. Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016. The waste generated will be collected and stored at designated area at the project site. PP has signed an agreement with 3rd party vendor who will collect and dispose/treat the wate in line with applicable rules. The records of waste generated, stored and given to 3rd party vendor will be maintained at the project site and will be monitored on annual basis with quantity measured in tonnes/year which is appropriate and acceptable.

2. Solid waste pollution from E-wate: The E-waste generated as a part of project activity in the form on waste/defunct electronics such as mobiles/laptop and/or associated parts will be stored, treated and disposed of in line with applicable host country law i. e. E- Waste (Management) Rules, 2022 and its amendments. The waste generated will be collected and stored at designated area at the project site. PP has signed an agreement with 3rd party vendor who will collect and dispose/treat the wate in line with applicable rules. The records of waste generated, stored and given to 3rd party vendor will be maintained at the project site and will be monitored on annual basis with quantity measured in tonnes/year which is appropriate and acceptable.

Sustainable Development Goals

The SDG goals 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:** VVB noted that electricity produced and supplied to the grid is monitored through energy meters/21/. Net electricity generated is obtained from the monthly Statement of net export of power to the grid at the plant site. The other parameters used for net electricity supplied to the grid are mentioned in the monitoring plan. The O&M site-in-charge is responsible for the regular recording of data. SDG 07 is measured through the parameter $EG_{PJ,\ y.}$ $EG_{PJ,\ y}$ is the quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh. This is measured by the energy meter/21/ on continuous and on monthly basis. This information is verified through JMR and Invoices.

	QA/QC Process: This parameter is monitored monthly and the value of the parameter is cross checked with the invoices. The energy meters are calibrated/21/ on regular frequency. **Relevant SDG Target:** 7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix. **Corresponding indicator:** Electricity produced and supplied to the grid. (7.2.1 Renewable energy share in the total final energy consumption)
SDG 8 – Decent Work and Economic Growth: Promote inclusive and sustainable economic growth, employment and decent work for all	**1. Quantitative employment** **2. Quality of employment** **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/13/. **QA/QC Process:** The number of persons employed are mentioned in the plant register, VVB cross-checked daily attendance register, employee records, salary slips of employee or letter from O&M contractor for number of people employed. **Relevant SDG Target:** 8.5.1 - 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. 8.6 - By 2020, substantially reduce the proportion of youth not in employment, education or training/13/. **Corresponding indicator:** 1) No. of trainings provided to the employees and O&M staff: 01 training will be provided/year, and 2) No. of employment provided due to project activity: 10 persons.
SDG 13 – Climate Action : Take urgent action to combat climate change and its impacts	**Measurement Method:** The emission reduction parameter is calculated as a 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 India National Network Grid Emission Factor Data Sheet of Ministry of Energy and Natural Resources. This is in line with "Tool to calculate the emission factor for an electricity system, version 7"/9/. The emission reductions are calculated as per registered PDD/2/ and as per methodology/5/ requirement. SDG 13 is monitored in project through the parameter ERy. ERy is the emission reduction achieved through year due to project activity. This parameter is monitored by amount of renewable energy generated by project activity. Same has been verified by ER sheet/4/, JMR and Invoices.**QA/QC Process:** This parameter is calculated, and no QA/QC procedure required. **Relevant SDG Target:** 13.2.1: Integrate climate change measures into national policies, strategies and planning **Corresponding indicator:** Emission reductions in tCO_2e from the project activity.

PP has submitted SDG impact tool which was checked and found okay. PP has correctly mentioned all the above SDGs and its details which were checked and found correct.

Principle 3: Stakeholder Inclusivity

The project is applying for the renewal of the crediting period i.e. Second crediting period from 01/01/2024 to 31/12/2028. Thus, reassessment of stakeholder's inclusivity not required. In GS PDD/1/, project developer has provided details of meeting and feedback round conducted at the time of However, VVB ensured that ongoing stakeholder consultation through grievance register is being maintained by PP. During remote audit, VVB has checked and confirmed that the grievance registered is maintained at the project site locations.

Principle 4: Demonstration of real outcomes

The Sustainable monitoring plan is described below:

SDG Parameter	Indicator	Monitoring
SDG 7: Affordable and Clean Energy	Quantity of net electricity delivered by the project plant/unit in MWh	The available parameter to Project Developer is net electricity supplied to grid (EGPJ,y or equi.) and same is mentioned as monitoring parameter. The net electricity generation is calculated based on Export, import values from the meters connected at the sub-station. The Net electricity is thus calculated based on the values of export and import for the particular billing month. Quantity of net electricity supplied to the grid is cross checked from the invoices raised by the project proponent. The energy meters/21/ used are tri-vector meters which are of accuracy class 0.2. The calculation of net electricity supplied to the grid is under purview of the state electricity board and the Project owner does not have control on it. In Rajasthan, as per state government regulations, 2 bi-directional energy meters/21/, main and check are maintained which are used for energy measurement and are located at substation end. The detailed monitoring plan which was checked and confirmed based on sample generation records, invoices and interviews with PP representatives. The onsite practice is thus acceptable to the assessment team as the same is as per the requirement of the approved methodology/5/.

		The details of the energy meters used are provided in appendix 5 which were confirmed against the supporting documents i. e calibration certificates.
SDG 8: Decent Work and Economic Growth	Quantitative employment and income generation	The Project participant has documentation pertaining to employment, attendance register and documentary details of training/capacity building along with O&M expenses. Assessment team also checked the salary slips and confirmed that due to project activity people 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 the employee, the salary will be higher than the minimum salary of the region and hence the parameter monitoring is acceptable to the assessment team.
	Quality of employment	The training records[13] are maintained on a regular basis with annual consolidation. Assessment team checked that 10 people are expected to be employed at site during the crediting period. The employment opportunities generated are local or temporary or permanent as checked and confirmed by the assessment team. The training[13] related to O&M, Safety, Soft skills etc. are provided to employees. Since local people are employed due to project activity, the training[13] given to employees improves the quality of employment. As the parameter is subjected to monitoring the same will be checked during the verification of the project activity. PP ensures that safe working conditions and safety equipment has been provided for all skilled and unskilled labour. Assessment team however checked that the working team is provided with safety equipments as part of the company's policy.
SDG 13: Climate Action	Emission Reductions	The emission reduction calculation is carried out 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.

Principle 5: Financial Additionality & Ongoing Financial Need

The additionality of the project activity has been demonstrated in-line with "Tool for the demonstration and assessment of additionality", Version 07.0. All steps of the additionality tool have been demonstrated in the registered GS PDD/2/ and its validation report.

The project activity is already registered with the GS and additionality of project already demonstrated in registered PDD/2/ (https://platform.sustain-cert.com/public-project/1529). VVB found the same to be correct and appropriate.

The project is operational from date of commissioning/16/ and is claiming VER revenue too for the same.

VVB has cross checked and confirmed the issuances for the 1st crediting period which are presented below:

Sr. No.	Monitoring period from 1st crediting period	Estimated emission reductions (tCO_2e)	Achieved emission reductions (tCO_2e)
1	01/01/2019 to 31/08/2019	519,243	608,592
2	01/09/2019 to 30/09/2020	846,174	989,457
3	01/10/2020 to 30/09/2021	779,933	943,156
4	01/10/2021 to 30/09/2022	779,933	909,798

Thus, total GS VER issuance claimed for the 1st crediting period is 34,51,003 tCO_2e against 29,25,283 for the same period as per the registered GS PDD and approved monitoring reports and concerned assessment by VVB for each period which is 17.97% higher.

VVB further checked the total expected generation and actual generation achieved in the 1st Crediting period as below;

Sr. No.	Period	Estimated generation (MWh)	Actual generation (MWh)
1	01/01/2019 to 31/08/2019	554,273	649,658
2	01/09/2019 to 30/09/2020	903,260	1,056,224.83
3	01/10/2020 to 30/09/2021	832,550	1,006,796.48
4	01/10/2021 to 30/09/2022	832,550	971,188
	Total	**31,22,633**	**36,83,867**

The total electricity generation was found to be 17.97% higher than the estimated one for the 1st crediting period.

As confirmed during interviews with PP and supporting documents, PP has used VER revenue towards O&M cost, training/13/ and consulting expenses along with VVB expenses and GS4GG

related expenses. It is evident from the submitted documents and registered GS PDD[/2/] that the project has low IRR and income from GS certification proves useful.

PP has taken a bank loan for the project and income form GS certification is used to repay the same too.

Based on the actual generation from project activity, VVB noted that average annual PLF value is 24% and the maximum achieved PLF value is 28.08%. With this PLF value, the project is still additional which was confirmed based on the submitted investment analysis workbooks.. Since, PLF is the only parameter which affects the financial inclusiveness of the project in post commissioning period (as O&M cost is not zero, will not impact), VVB noted that the project still needs GS VER revenue.

VVB has accessed the provided information and found it accurate, correct and suitable for OFN demonstration. This design change with respect to change in the PLF value is dicussed in appendix 4 of the latest version of the PDD and appendix 6 below.

VVB during interviews with PP representatives have checked and confirmed that waste management practices followed at the site are in line with applicable host country regulations i.e. Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 and E-Waste (Management) Rules, 2022. The parameters to be monitored for waste management are discussed under safeguarding principles assessment above.

VVB is of the opinion that the finance derived from Gold Standard certification is material for the project to the ongoing sustainability of the registered project. Since the carbon finance is found to be good resource for project continuation, ongoing financial need is found justified.

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

The GS4GG PDD of the project activity was checked by the assessment team and found that ACM0002, Version 21.0 is used which is the latest version of the methodology by UNFCCC. The latest version of applied methodology is ACM0002, version 21.0[/5/] and VVB confirms that the project activity is in line with the latest version of methodology.

The formula used in the GS4GG PDD[/1/] used for the calculation of emission reduction is found to be correct as per the applied methodology. Hence emission reduction calculations at this time of validation are conservative and appropriate.

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

$$\mathbf{ER_Y = BE_Y - PE_Y}$$

Where,

ER_Y = Emission Reduction in tCO_2/year

BE_Y = Baseline emission in tCO_2/year

PE_Y = Project emissions in tCO_2/year

PEy = 0. As per the para 35 of applied methodology ACM002 Version 21.0[5]. Project emission considered for renewable project activity is considered as 0.

Baseline Emission (BE_Y)

The baseline emissions are the product of electrical energy baseline $EG_{PJ,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by an emission factor.

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

Where,

$EG_{PJ,y}$ = Total quantity of net electricity delivered to the Indian grid
$EF_{grid,CM,y}$ = Combined margin CO2 emission factor for grid connected power generation in year y = 0.9310 tCO_2e/MWh

$BE_Y = EG_{PJ,y} * EF_{grid,CM,y}$

BE_y = 974,133 x 0.9310 = 906,917 tCO_2/year (round down to nearest integer)

Since $ER_y = BE_y$ (As PE_y=0)

Therefore, ER_y = 906,917 tCO_2/year

SDG 13 Climate Action

Year	Baseline estimate (tCO_2e)	Project estimate (tCO_2e)	Net benefit (tCO_2e)
Year 1 (2024)	916,032	0	916,032
Year 2 (2025)	911,452	0	911,452
Year 3 (2026)	906,895	0	906,895
Year 4 (2027)	902,360	0	902,360
Year 5 (2028)	897,848	0	897,848
Total	**4,534,587**	**0**	**4,534,587**
Total number of crediting years	5 years		
Annual average over the crediting period	**906,917 tCO_2**	**0 tCO_2**	**906,917 tCO_2**

SDG 7: Affordable and Clean Energy

Year	Baseline estimate (MWh)	Project estimate (MWh)	Net benefit (MWh)
Year 1 (2024)	0	983,923	983,923
Year 2 (2025)	0	979,004	979,004
Year 3 (2026)	0	974,109	974,109
Year 4 (2027)	0	969,238	969,238
Year 5 (2028)	0	964,392	964,392
Total	**0**	**4,870,665**	**4,870,665**
Total no. of crediting years	5 years		
Annual average over the crediting period	**0**	**974,133**	**974,133**

SDG 8: Decent Work and Economic Growth

The project will lead to employment opportunities which were evident for the first crediting period and which would not have been possible in the baseline scenario. The project intends to provide employment to at least 10 people. PP also intends to provide at least 01 trainings[13] per year as confirmed during interviews with PP representatives during remote validation audit.

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4. FINAL PROJECT DESIGN CERTIFICATION STATEMENT

Applus+ Certification has performed the validation for design certification renewal of "400 MW Solar Power Project at Bhadla, Rajasthan". The validation was performed on the basis of Gold Standard GS4GG guidelines and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the GS4GG PDD/1/ and the subsequent follow-up interviews has provided Applus+ Certification with sufficient evidence to determine the fulfilment of stated criteria.

In our opinion, the project meets all relevant Gold Standard requirements for the Gold Standard and all relevant host country criteria. The project will hence be recommended by Applus+ Certification for design certification renewal with the Gold Standard Registry.

By displacing fossil fuel-based electricity with electricity generated from a renewable source, the project results in reductions of CO_2 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 **906,917 tCO_2e** per year.

The validation has been performed following the requirements of the Gold Standard GS4GG guidelines, UNFCCC methodology, tools and guidelines 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 SDG 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.

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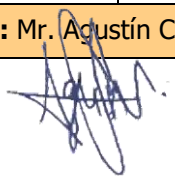
Date: 06/01/2025

Lead Auditor/
Tech. Expert: Mr. Deepak Pundlik

Tech. Reviewer: Dr. N. Premjit Singh

Approver *(Applus+ Certification VVB Technical Manager)*
Mr. Agustín Calle de Miguel

ASSESSMENT TEAM	
Lead Auditor: Deepak Pundlik	**Technical Reviewer:** Dr. N. Premjit Singh
Signature: 	Signature: 
Approver: Mr. Agustín Calle de Miguel	
Signature: 	

5. REFERENCE

Sr. No.	Document/Evidence/Reference/Web blink, Version, Date
1	Initial GS4GG PDD for design certification renewal (DCR), version 01 dated 14/09/2023 Final GS4GG PDD (DCR), version 08.1 dated 31/12/2024 based on which the final opinion is provided.
2	Registered GS PDD version 07.0, dated 27/03/2020 Validation report by Applus+, version 02 dated 27/03/2020 Previous Verification report by Applus+ Certification, version 02.0 dated 30/01/2023 Previous Monitoring report version 03 dated 28/12/2022
3	Minutes of Meeting for Local Stakeholders' Consultation
4	Emission Reduction Calculation Sheet Ongoing Financial Need requirement worksheet SDG impact tool
5	Methodology: ACM0002, Version 21.0
6	CDM Project Standard Version 03 CDM Validation & Verification Standard Version 03
7	GS4GG Validation & Verification Standard Version 01 GS4GG Activity Requirements: Renewable Energy Activity Requirements 1.4 GS4GG option requirement: GHG Emissions Reduction & Sequestration Product requirements, version 2.2 GS4GG option requirement: Renewable Energy Label Product Requirements, version 1.2
8	CDM Project Cycle Procedure Version 03
9	Tool to calculate the emission factor for an electricity system, version 7.0
10	Tool for the demonstration and assessment of additionality, version 7.0
11	Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period, version 3.0.1
12	Stakeholders' consultation process in GS-PDD and grievance register at the site
13	Training Records of project staff at site
14	Declaration for non-receiving of ODA for project
15	Power Purchase Agreement – 1 Between SB Energy One Pvt Ltd and Solar energy corporation of India Limited on 16/09/2017. 2 Between SB Energy Three Pvt Ltd and Solar energy corporation of India Limited on 16/09/2017.
16	Commissioning certificates for all plants – 1. 100 MW – 21/09/2018 2. 100 MW – 24/09/2018 3. 100 MW – 24/09/2018 4. 20 MW – 04/10/2018 5. 20 MW – 04/10/2018 5. 30 MW – 18/09/2018 7. 30 MW – 18/09/2018

17	Technical specifications of solar panels, invertors etc.
18	HR policy and HSE policy
19	CEA data base version 18.0 - https://cea.nic.in/cdm-co2-baseline-database/?lang=en
20	Ministry of power, government of India - https://powermin.gov.in/en/content/power-sector-glance-all-india
21	Energy meter calibration certificates
22	Operation and maintenance agreement
23	Geo tagged photographs of Solar power plants
24	Single line diagram of the project activity
25	Sample copies of monthly generation reports and invoices raised by PP against the same.

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

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	01
Raised by:	Validation team	Section no. of VR:	3.9
Description of the audit finding		Date:	27/10/2023
In Section C.2 of the submitted PDD version 01 dated 14/09/2023, PP mentioned "Start date of crediting period under VCS was 27/02/2023". However, the description regarding the transfer of project activity from VCS to GS is not mentioned in A.1 of the project activity. PP to provide clarification.			
Project Developer's response		Date:	31/10/2023
Start date of crediting period under VCS was 27/02/2017 and total emission reductions claimed from a project activity cannot exceed the total limit of 15 years combining all the emissions years from all the standards. Therefore, the end date of crediting period under GS4GG will be 26/02/2032. Project id & reference link has now been provided in section C.2.1 of the revised PDD.			
Documentation provided as evidence by Project Participant			
Revised PDD			
Auditor's assessment comment		Date:	02/11/2023
PP has submitted the revised PDD to VVB team. During assessment VVB team observed that, PP mention about project is registered with VCS registry and provided the VCS ID – 1805 and link for the same. PP to clarity if the project is deregistered from VCS or not. **Hence CL #01 is open.**			
Project Developer's response		Date:	16/11/2023
PP has already deregistered the project activity from VCS and also received the confirmation letter from Verra for the same.			
Documentation provided as evidence by Project Participant			
Confirmation letter & VCS declaration			
Auditor's assessment comment		Date:	20/11/2023
PP has submitted the deregistration letter received from Verra dated on 20/05/2020 for bundle project by SB Energy Private Limited. Deregistered bundle project with VCS ID 1805 inclusive of this RCP project which confirm through declaration letter by SB energy and geo coordinates of project activity. Which is acceptable, hence **CL#01 is closed.**			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	02
Raised by:	Validation team	Section no. of VR:	3.9
Description of the audit finding		Date:	27/10/2023
PP requested to submit following documents to confirm the project description, additionality, energy generation and stakeholder consultation 1. Meter Calibration certificate 2. Employment records and training records 3. Copy of grievance register 4. Copy of JMR and Invoices 5. Supporting for no public funding from Annex I country and no diversion of official development assistance (ODA)			
Project Developer's response		Date:	31/10/2023
All supporting documents has now been submitted to the validation team.			
Documentation provided as evidence by Project Participant			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	02
Raised by:	Validation team	Section no. of VR:	3.9
1. Meter Calibration certificate 2. Employment records and training records 3. Copy of grievance register 4. Copy of JMR and Invoices 5. ODA Declaration			
Auditor's assessment comment		Date:	02/11/2023
1. PP has submitted the revised PDD. During VVB assessment observed that, PP mentioned calibration details in appendix 4 and same details are mentioned in supporting documents, which found consistent. **Hence this part of CL is closed.** 2. PP has submitted the salary slips of employees and records of training carried out from the 2019 to verify the information provided in PDD. Which found consistent and corrected. **Hence this part of CL is closed.** 3. PP has submitted the grievance register to VVB team. During assessment VVB team observed that, grievances are register by local employment generated from project activity. **Hence this part of CL is closed.** 4. PP has submitted the invoices raised in 2019 and 2020 for energy generation form project activity, which found acceptable. **Hence this part of CL is closed.** 5. PP has provided the ODA declaration for no public funding from Annex I country, which is acceptable. **Hence this part of CL is closed.** **CL 02 is closed.**			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	03
Raised by:	Validation team	Section no. of VR:	3.10
Description of the audit finding		Date:	27/10/2023
As per the observation of the verification team PP has not applied degradation factor for the project activity, since this is solar project activity. PP to clarify.			
Project Developer's response		Date:	31/10/2023
Degradation factor has been applied in the revised ER sheet and same has been provided to the validation team.			
Documentation provided as evidence by Project Participant			
Revised ER sheet			
Auditor's assessment comment		Date:	03/11/2023
PP has submitted the revised PDD and ER sheet to VVB team. During assessment VVB team observed that, PP has applied to 0.5 degradation factor from second year, which found acceptable. **Hence CL 03 is closed.**			

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Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	01
Raised by:	Validation team	Section no. of VR:	3.9
Description of the audit finding		Date:	27/10/2023

1. PP shall provide the date of design certification on cover page as per template V 1.5 requirement.
2. Section A.1 is of PDD is inconsistent with the PDD template V 1.5 requirement.
3. PP shall provide the end-to-end geo coordinates provided for project activity in section A.1.2.
4. PP shall provide a flow diagram of the project boundary based on the description provided in Technologies and/or measures above (a list of the facilities, systems and equipment that will be installed and/or modified by the project in section B.3.
5. In section C.1, justification for the project is regular or retroactive is not provided as per PDD template V 1.5 requirement.
6. PP shall mention the organization's registration number with relevant authority in appendix 2 as per PDD template guideline V1.5 requirements.
7. PP shall provide all mandatory information in Appendix 1. PD shall revisit and addressed appropriately.
8. As per the template requirement, each year must be for a 12month period and must reflect events that may influence emission reductions (for example roll out periods, technology lifetimes) hence provided in DD/MM/YYYY to DD/MM/YYYY format for all SDGs.
9. PP shall provide the purpose of project and how it reduces the GHG emission in section A.3 as per the PDD template V1.5 requirement.
10. PP shall mention the age and average lifetime of project activity in section A.3 as per PDD template V 1.5 requirements.
11. PP to provide details of Meter calibration in appendix of the submitted Project design document (PDD). Correction is required.

Project Developer's response	Date	31/10/2023

1. Date of design certification will be update at the time of design certification.
2. Section A.1 has now been updated of the revised PDD.
3. End-to-end geo coordinates has been provided in section A.2 of the revised PDD.
4. Section B.3 has now been updated of the revised PDD.
5. Section C.1 has now been updated of the revised PDD.
6. Organization's registration number has been mentioned in Appendix 2.
7. All mandatory information has been provided in Appendix 1.
8. All SDGs section has been updated as per the template requirement.
9. Purpose of project activity has been provided in section A.3 of the revised PDD.
10. Age and average lifetime of project activity has been provided in section A.3 of the revised PDD.
11. Details of Meter calibration has been provided in Appendix 4.

Documentation provided as evidence by Project Participant		
Revised PDD		
Auditor's assessment comment	Date:	03/11/2023

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Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	01
Raised by:	Validation team	Section no. of VR:	3.9

1. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has not provided design certificate date which is provided at time of validation as per PDD template requirement. **Hence this part of CAR is open.**
2. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has revised the section A.1 as per PDD template requirement and added project boundary in section A.1. **Hence this part of CAR is closed.**
3. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has revised the section A.2 and provided the end-to-end geo co-ordinates for project activity as per requirement, which found correct. **Hence this part of CAR closed.**
4. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has revised the section B.3 which found consistent with template requirement. **Hence this part of CAR is closed.**
5. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has revised the section C.1 and explain about project is retroactive as per requirement of template. **Hence this part of CAR is closed.**
6. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has revised the appendix 2 and provide all the required information, which is acceptable. **Hence this part of CAR is closed.**
7. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has revised the appendix 1 and provide all the required information, which is acceptable. **Hence this part of CAR is closed.**
8. PP has provided the revised PDD. During assessment VVB team observed that, PP has updated SDGs section as per the template requirement. **Hence this part of CAR is closed.**
9. PP has provided the revised PDD. During assessment VVB team observed that, PP has updated the section A.3 and explain about purpose of project and how it reduces the GHG emission as per template requirement. **Hence this part of CAR is closed.**
10. PP has provided the revised PDD. During assessment VVB team observed that, PP has updated Age and average lifetime of project activity in section A.3 as per template requirement. **Hence this part of CAR is closed.**
11. PP has provided the revised PDD. During assessment VVB team observed that, PP has provided details of main & check meter in Appendix 4 to verify with provided supporting document. **Hence this part of CAR is closed.**

CAR 01 is open.

Project Developer's response	**Date:** 16/11/2023

1. Date of design certification has now been provided in KPI table of the revised PDD.

Documentation provided as evidence by Project Participant

Revised PDD

Auditor's assessment comment	**Date:** 20/11/2023

PP has submitted the revised PDD to VVB team. During assessment VVB team found that, PP has mentioned the date of design certification date as 10/04/2020 same has been verified with registered PDD and found consistent, which is acceptable. Hence **comment 01 is closed.**

CAR 01 is closed.

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Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	02
Raised by:	Validation team	Section no. of VR:	3.9
Description of the audit finding		Date:	27/10/2023
As per latest guidelines issued by GS4GG, for ongoing financial need PP shall a. Demonstrate how finance derived from GS certification is material to ongoing sustainability. b. Provide a qualitative narrative supported by project finance c. Provide an information highlighting the key categories and amounts or relative proportions (%) of project income and outgoings, and certification related cost and revenue d. Demonstrate resources required to continue advancing towards the desired outcomes, sustainability progress and adding new challenges.			
Project Developer's response		Date:	31/10/2023
Section B.5.2 has now been updated as per latest guidelines issued by GS4GG.			
Documentation provided as evidence by Project Participant			
NA			
Auditor's assessment comment		Date:	DD/MM/YYYY
PP has provided revised PDD to VVB team. During VVB assessment it observed that, a. PP has demonstrated about how finance derived from GS certification is material to ongoing sustainability in section B.5.2 of revised PDD. **Hence this part of CAR closed.** b. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP provided qualitative narrative supported by project finance and its ongoing financial requirement. **Hence this part of CAR is closed.** c. PP has provided revised PDD to VVB team. During assessment VVB team observed that, PP has not provided an information highlighting the key categories and amounts or relative proportions (%) of project income and outgoings, and certification related cost and revenue. **Hence this part of CAR is open.** d. PP has provided the information regarding the continue advancing towards the desired outcomes and sustainability progress but not explained about new challenges to project activity. **Hence this part of CAR is open.**			
Project Developer's response		Date:	16/11/2023
c. Information of the key categories and amounts for the project activity has now been provided in section B.5.2 of the revised PDD. d. Information about new challenges of project activity has now been provided in section B.5.2 of the revised PDD.			
Documentation provided as evidence by Project Participant			
Revised PDD			
Auditor's assessment comment		Date:	20/11/2023
c. PP has submitted the revised PDD to VVB team. During assessment VVB team observed that, PP mention the chronology of events occurred during project activity instead of key categories and its amount for project activity. **Hence this part of CAR is open.** d. PP has submitted the revised PDD to VVB team. During assessment VBB team observed that, PP has mentioned the required details in section B.5.2 of revised PDD. **Hence this part of CAR is closed.** **CAR 02 is Open.**			
Project Developer's response		Date	02/12/2023
c. Information of key categories and amounts for the project activity has now been updated in section B.5.2 of the revised PDD.			
Documentation provided as evidence by Project Participant			
Revised PDD			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	02
Raised by:	Validation team	Section no. of VR:	3.9
Auditor's assessment comment		Date	04/12/2023
c. PP has submitted the revised PDD to VVB team. During assessment VVB team observed that, PP mention the key categories and its amount for project activity. **Hence CAR 02 is closed.**			

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	01
Raised by:	Validation team	Section no. of VR:	3.9
Description of the audit finding		Date:	11/04/2024
Refer Site Visit and Remote Audit Requirements v.02 §3.2.2 "A physical site visit by VVB is mandatory at the first verification of a project" after design renewal certification.			
Project Developer's response		Date:	DD/MM/YYYY
Documentation provided as evidence by Project Participant			
Auditor's assessment comment		Date:	DD/MM/YYYY

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	02
Raised by:	Validation team	Section no. of VR:	3.9
Description of the audit finding		Date:	11/04/2024
ASSESSMENT APPROACH FOR REPORTING HIGHER EX-POST EMISSION REDUCTIONS dated 04/07/2022 Considering the higher realized ERs than estimated during every monitoring period, the same shall be checked and in any case of more than 10% Increase, it shall be justified with evidence by VVB. PP and VVB shall note that if PLF has increased, and the registered equity IRR reaches the benchmark, this may jeopardize the additionality of the project. In such case, the issuance will be capped at the registered PDD estimation of SDG 13 during next performance review and design change request shall be submitted to GS to ensure the validity of the project activity.			
Project Developer's response		Date:	DD/MM/YYYY
Documentation provided as evidence by Project Participant			
Auditor's assessment comment		Date:	DD/MM/YYYY

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Appendix 2: Audit Team CVs

Name	SHORT CV. BACKGROUND INFORMATION
Deepak Pundlik	**Mr. Deepak Pundlik** has experience in climate change, waste management and environmental management. After completing Masters in Environment Sciences from Pune university, He has worked in waste management field. As a GHG consultant, He handled projects under renewable energy, waste management sectors during his stint with companies - MITCON and Thermax. Post Thermax, Deepak was involved in organic farming research project with Tata Institute of Social Sciences. As a GHG auditor, He has validated/verified projects under CDM/VCS/GS and GCC mechanisms from renewable energy, energy demand, waste management sectors.
Dr. N Premjit Singh	**Dr. N Premjit Singh** has a PhD in Mechanical Engineering (Thesis: Design and development of a square parabolic dish system with a concentrated photovoltaic (CPV) module for performance improvement) from the Indian Institute of Technology (IIT) Madras, Chennai, India, awarded in 2021. M.Tech in Energy Technology, Tezpur University, Napaam, India (2007), and B.Tech in Mechanical Engineering (2005), NERIST, Nirjuli, India. He has extensive experience of about 7 years with DOEs, including UNFCCC CDM and other carbon related schemes (e.g., VCS, GS, GCC), and 5 years + in research projects, renewable energy, and energy audits. In Applus+ since March 2023, he has been the Product Assurance Manager for CDM/VCS/GS4GG/GCC Department to ensure the quality of the performance of different assessments. Coordinate the global team for technical reviews, and identify the training needs for the auditors and technical reviewers to improve the quality of reports. Holds experience as a Lead Auditor, Validator and Verifier for GHG mitigation projects and programmes of activities in Sectoral Scope 1.2 (Renewables), and is qualified as per Applus+ procedures. Dr. N Premjit Singh is based in Gurugram, India. Dr. N Premjit Singh is the technical reviewer of the project.

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Appendix 3: GS4GG audit technique

AUDITING TECHNIQUES REPORT

For Design Certification and Design Certification Renewal

Scope of assessment	**Auditing technique(s) used[1]**	**Has the audit technique(s) been sufficient to validate the aspect?[2]**	**Risk(s) identified[3]**	**Auditing tools used as a part of mitigation of identified risks[4]**	**Findings raised[5] (if applicable)**	**Conclusion**	**Reference to the key evidence supporting the Conclusion**
Purpose and general description of project	Document review, stakeholder interviews	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review, Video call (skype/MS team). Satellite imaging	CAR 01 was raised & closed successfully. FAR 01 is raised for on-site visit during 1st verification post design renewal certification.	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template.
Eligibility of the project under Gold Standard	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	CL 02 was raised and closed successfully.	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template, GS4GG eligibility criteria
Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	CL 02 was raised and closed successfully.	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template, commissioning certificate.

Location of project	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review, Satellite imaging	-	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template., commissioning certificate, power purchase agreement, geo-tagged photographs of Solar plant.
Technologies and/or measures	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template, technical specifications of solar plant.
Scale of the project	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template, commissioning certificate.
Funding sources of project	Document review, stakeholder interviews	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	CAR 02 was raised and closed successfully.	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template

APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS							
Applicability of methodology (ies)	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD and GS Passport, GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0
ACM0002						Positive	
This methodology is applicable to grid-connected renewable power generation project activities that: a. install a Greenfield power plant; b. involve a capacity addition to (an) existing plant(s); c. involve a retrofit of (an) existing operating plants/units; d. involve a rehabilitation of (an) existing plant(s)/unit(s) or e. involve a replacement of (an) existing plant(s)/unit(s).	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0
The project activity may include renewable energy power plant/unit of one of the following types: hydro power plant/unit with or without reservoir, Wind power plant/unit, geothermal power plant/unit, Wind power plant/unit, wave power	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0

plant/unit or tidal power plant/unit;							
In the case of capacity additions, retrofits, rehabilitations or replacements (except for Wind, Wind, wave or tidal power capacity addition projects the existing plant/unit started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity;	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0

In case of hydro power plants, one of the following conditions shall apply: a. The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or b. The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density calculated using equation (3), is greater than 4 W/m2; or c. The project activity results in new single or multiple reservoirs and the power density, calculated using equation (3), is greater than 4 W/m2. d. The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (3), is lower than or equal to 4 W/m2, all of the following conditions shall apply: i) The power density calculated using the total installed capacity of the integrated						Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0

project, as per equation (4), is greater than 4 W/m2 ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity; iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m2 shall be; a. Lower than or equal to 15 MW; and b. Less than 10 per cent of the total installed capacity of integrated hydro power project							
In the case of integrated hydro power projects, project participant shall: i) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or ii) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0

balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum five years prior to implementation of CDM project activity.							
Methodology is not applicable to the following: a. Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; b. Biomass fired power plants/units	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0

In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review		Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0
Project boundary	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0
Establishment and description of baseline scenario	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, CDM approved methodology - ACM0002 version 21.0, tool for assessment of baseline at the renewal of crediting period

Demonstration of additionality	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review		Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template
Prior Consideration	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Not applicable
Ongoing Financial Need	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	CAR 02 was raised & closed successfully.	Positive	Latest GS PDD for renewal of design certification, registered PDD , ongoing financial excel sheet, submitted PLF data
Explanation of methodological choices/approaches for estimating the SDG Impact	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template.

Data and parameters fixed ex ante	Document review	No	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review		Positive	Latest GS PDD for renewal of design certification, registered PDD
Parameter 1 - $EF_{grid,OM,y}$	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , CEA database, CDM tool - 07
Parameter 2 - $EF_{grid,BM,y}$	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , CEA database, CDM tool - 07
Parameter 3 - $EF_{grid,CM,y}$	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , CEA database, CDM tool - 07

Ex ante estimation of SDG Impact	Document review, stakeholder interviews	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review		Positive	Latest GS PDD for renewal of design certification, registered PDD
Summary of ex ante estimates of each SDG Impact	Document review, stakeholder interviews	No	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD
SDG impact 7	Document review, stakeholder interviews	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	CL 02 is raised and closed successfully.	Positive	Latest GS PDD for renewal of design certification, registered PDD
SDG impact 8	Document review, stakeholder interviews	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	CL 02 is raised and closed successfully.	Positive	Latest GS PDD for renewal of design certification, registered PDD

SDG impact 13	Document review, stakeholder interviews	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	CL 03 were raised and closed sucesfully.	Positive	Latest GS PDD for renewal of design certification, registered PDD
MONITORING PLAN							
Data and parameters to be monitored	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review		Positive	
Parameter 2 - EG_y	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	FAR 02 is raised.	Positive	Latest GS PDD for renewal of design certification, registered PDD , ER sheet
Parameter 3 - Number of employment generation	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , ER sheet

			reductions, monitoring methodology).				
Parameter 4 - Quality of Employment	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , ER sheet
Parameter 5 - O & M cost	Document review	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , ER sheet
Sampling plan	Document review, stakeholder interviews	Yes	N/a	N/a	-	Positive	N/a
Other elements of monitoring plan	Document review, stakeholder interviews	Yes	Risk of non-conformity with key methodological requirements (applicability conditions, project boundary, identification of baseline scenario, algorithms and/or formulae used to determine emission reductions, monitoring methodology).	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template.
DURATION AND CREDITING PERIOD							

Start date of project	Document review	Yes	Risk of non-conformity with core GS4GG principles including but not limited to safeguarding principles, stakeholder inclusivity, SDG Impacts.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , commissioning certificate
Expected operational lifetime of project	Document review	Yes	Risk of non-conformity with core GS4GG principles including but not limited to safeguarding principles, stakeholder inclusivity, SDG Impacts.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , technical specifications of wind turbines
Start date of crediting period	Document review	Yes	Risk of non-conformity with core GS4GG principles including but not limited to safeguarding principles, stakeholder inclusivity, SDG Impacts.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD
Total length of crediting period	Document review	Yes	Risk of non-conformity with core GS4GG principles including but not limited to safeguarding principles, stakeholder inclusivity, SDG Impacts.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD
SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT							
Safeguarding Principles that will be monitored	Document review	Yes	Risk of non-conformity with core GS4GG principles including but not limited to safeguarding principles, stakeholder inclusivity, SDG Impacts.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, safeguarding principles and requirements
Assessment that projects complies with GS4GG Gender Sensitive requirements	Document review	Yes	Risk of non-conformity with core GS4GG principles including but not limited to safeguarding principles, stakeholder inclusivity, SDG Impacts.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, safeguarding principles and requirements

SUMMARY OF LOCAL STAKEHOLDER CONSULTATION							
Summary of stakeholder mitigation measures	Document review, stakeholder interviews	Yes	Risk of any negative feedback/observations received from GS stakeholders, e.g., TAC, end-users, NGO supporters etc, not being addressed sufficiently by the project.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, ongoing stakeholder consultation
Final continuous input / grievance mechanism	Document review, stakeholder interviews	Yes	Risk of any negative feedback/observations received from GS stakeholders, e.g., TAC, end-users, NGO supporters etc. not being addressed sufficiently by the project.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, ongoing stakeholder consultation
Safeguarding Principles Assessment	Document review, stakeholder interviews	Yes	Risk of any negative feedback/observations received from GS stakeholders, e.g., TAC, end-users, NGO supporters etc, not being addressed sufficiently by the project.	Remote document and data review	-	Positive	Latest GS PDD for renewal of design certification, registered PDD , GS4GG PDD template, safeguarding principles and requirements

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Appendix 4: Safeguarding principle assessment

SOCIAL SAFEGUARDING PRINCIPLES			
Reference requirement	**Question**	**PD Response**	**VVB assessment**
P.1 |Human Rights			
P.1.1.1 |	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES	The project fulfils the requirement of Gold standard certification and is neither in conflict with the economic livelihood, local community nor violating any human rights, hence there is no requirement of any mitigation measures in the project. The validation team confirms that Project activity fulfils the GS certification requirement outlined in the P.1 of the GS4GG safeguarding principles requirements version 2.1
-		☒ NO	
P.1.1.1 |	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES	
-		☒ NO	
P.1.1.2 |	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES	
-		☒ NO	
P.1.1.3 |	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES	
-		☒ NO	
P.1.1.3 |	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES	
-		☒ NO	
P.1.1.1 |	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.1.1.2 |	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.1.1.3 |	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.1.1.3 |	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.2 |Gender Equality and Women's Empowerment			
P.2.1.1 |	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was
-		☒ NO	
-			
P.2.1.2 |		☒ YES	
-		☐ NO	

-	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?		confirmed by the validation team during the remote audit and interviews.
P.2.1.2 |	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES	
-		☒ NO	
-			
P.2.1.2 |	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES	
-		☒ NO	
P.2.1.2 |	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES	
-		☒ NO	
P.2.1.3 |	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES	
-		☒ NO	
P.2.1.4 |	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
PP will ensure that the project undermines the principles of non-discrimination, equal treatment, and equal pay for equal work. VVB noted during remote audit that PP will ensure equal treatment and equal pay for equal work forboth men and women.			
Would the project potentially involve or lead to:			
P.2.1.1 |	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interviews.
-		☐ POTENTIALLY	
-		☒ NO	
P.2.1.1 |	exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.2.1.2 |	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.2.1.2 |	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	

	that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.		
Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.			
NA			
P.3 | Community Health AND Safety			
P.3.1.1 |	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES	PP confirmed that all the employees will be trained about health and safety issues during operation phase of the project requirement outlined in the GS4GG safeguarding principles requirements version 2.1
-		☒ NO	
P.3.1.2 |	Does the project involve any potential risks to the workers' safety and health?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
NA			
Would the project potentially involve or lead to:			
P.3.1.1 |	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES	
-		☒ NO	
P.3.1.2 |	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.3.1.2 |	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.3.1.2 |	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.3.1.2 |	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.3.1.2 |	adverse impacts on ecosystems and ecosystem services relevant to communities'	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	

	health (e.g., food, surface water purification, natural buffers from flooding)?		
Briefly describe below how the project is addressing any identified risk related to community health and safety.			
NA			
P.4 |Cultural Heritage, Indigenous People, Displacement and Resettlement			
P.4.1 |Sites of Cultural and Historical Heritage	-	-	
P.4.1.1 |	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
NA			
Would the project potentially involve or lead to:			
P.4.1.1 |	activities adjacent to or within a cultural heritage site?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.1.1 |	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.1.1 |	alterations to landscapes and natural features with cultural significance?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.1.1 |	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	

	Heritage may also have inadvertent adverse impacts)		
P.4.1.2 |	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.4.1.2 |	If answer to question above is "YES" or "POTENTIALLY" - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES	
_		☒ NO	
_		☐ NA	
P.4.1.3 |	If answer to question above is "YES" - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES	
_		☒ NO	
_		☐ NA	
P.4.1.4 |	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
_		☒ NO	
_		☐ NA	
P.4.1.4 |	If answer to question above is "YES", has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
_		☒ NO	
_		☐ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.4.2 | *Forced Eviction and Displacement*	_	_	
P.4.2.1 |	Does the project involve any risks related to involuntary relocation of people?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
_		☒ NO	
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
NA			
Would the project potentially involve or lead to:			
P.4.2.1 |		☐ YES	

-	risk of forced evictions or involuntary relocation of people?	☐ POTENTIALLY	
-		☒ NO	
P.4.2.2 |	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.2.2 |	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.2.2 |	If answer to question above is "YES" or "POTENTIALLY", - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES	
-		☒ NO	
-		☐ NA	
P.4.2.3 |	If answer to question above is "YES" - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
P.4.2.3 |	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.4.3 |Land tenure and other rights	-	-	
P.4.3.1 |	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.			
NA			
Would the project potentially involve or lead to:			

P.4.3.1 |	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.3.1 |	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.4.3.2 |	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES	
-		☐ NO	
-		☒ NA	
P.4.3.2 |	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES	
-		☐ NO	
-		☒ NA	
P.4.3.3 |	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES	
-		☐ NO	
-		☒ NA	
P.4.3.4 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
P.4.3.4 |	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
-		☐ NO	
-		☒ NA	
P.4.3.5 |	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☒ YES	
-		☐ NO	
-		☐ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.4.4 |Indigenous peoples	-	-	
P.4.4.1 |	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.

_		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project potentially involve or lead to:			
P.4.4.1 |	affect areas where indigenous peoples are present (including project area of influence)	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
_		☐ POTENTIALLY	
_		☒ NO	
P.4.4.1 |	affect areas, land and territory claimed by indigenous peoples?	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.4.4.1 |	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.4.4.7 |	If answer to above questions is "YES" or "POTENTIALLY",	☐ YES	
_	- Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people?	☐ NO	
_	- Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation?	☒ NA	
_	- Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?		
P.4.4.3 |	risk of forcibly removing indigenous people from their lands and territories?	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.4.4.4 |	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.4.4.5 |	If answer to question above is "YES" or "POTENTIALLY"	☐ YES	
	- Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property?	☐ NO	
P.4.4.6 |		☒ NA	

	- Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting from the use of their traditional knowledge and practices? ?		
	- Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive?		
	- Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?		
P.4.4.8 |	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES	
-		☒ NO	
-		☐ NA	
P.4.4.8 |	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES	
-		☒ NO	
-		☐ NA	
P.4.4.9 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☒ NO	
-		☐ NA	
P.4.4.9 |	If answer to question above is "YES", have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES	
-		☒ NO	
-		☐ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.5 | Corruption	-	-	
P.5.1.1 |	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES	The PA does not identify any risk against the defined principle. The
-		☒ NO	

P.5.1.1 |	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES	justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
ECONOMIC SAFEGUARDING PRINCIPLES			
P.6 |Economic Impacts			
P.6.1 |Labour Rights and Working Conditions			
P.6.1.1 |	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES	The Project activity is said to conduct trainings for the workers in Health and safety during the operation phase and the project owners will comply with national labor and safety laws embodied in ILO. Workers can establish organization's and also there won't be any type of Child labour involved in the Project activity. All the information was confirmed by the validation team during the remote audit.
-		☒ NO	
P.6.1.1 |	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES	
-		☒ NO	
P.6.1.2 |	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES	
-		☒ NO	
P.6.1.3 |	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES	
-		☒ NO	
P.6.1.4 |	Does the project allow child labor?	☐ YES	
P.6.1.5 |		☒ NO	
P.6.1.7 |	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☒ YES	
P.6.1.8 |		☐ NO	
P.6.1.9 |	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES	
-		☒ NO	
P.6.1.10 |	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
The Project Developer ensures the training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.			

Would the project potentially involve or lead to:			
(note: applies to both project and contractor workers)			
P.6.1.1 |	use of forced labour?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.1 |	working conditions that do not meet national labour laws and international commitments?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.1 |	working conditions that may deny freedom of association and collective bargaining?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.1 |	absence of documented working agreements with all individual workers if such agreements do not exist, or do not address working conditions and terms of employment, the project developer shall provide reasonable working conditions and terms of employment.	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.1 |	use of migrant workers? if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.1 |	having no arrangements for basic services [1] for workers? the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.2 |	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.2 |	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.2 |	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	

P.6.1.3 |	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.4 |	use of child labour? (including third-party engaged workers)	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.1.4 |	inadequate and verifiable mechanisms for age verification?	☐ YES	
-		☒ NO	
P.6.1.7 |	no processes and measures in place for the safety and health of project workers?	☐ YES	
-		☒ NO	
P.6.1.7 |	No provision of safety and health training provisions, including on the proper use and maintenance of personal protective equipment conducted by competent persons and the maintenance of training records?	☐ YES	
-		☒ NO	
P.6.1.7 |	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☒ YES	
-		☐ NO	
P.6.1.8 |	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☒ YES	
-		☐ NO	
P.6.1.9 |	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES	
-		☒ NO	
P.6.1.10 |	No grievance mechanism available for workers to voice workplace concerns.	☐ YES	
-		☒ NO	
P.6.1.11 |	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES	
-		☒ NO	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
P.6.1.8 - The Project Developer ensures the training of workers, documentation and reporting of accidents and incidents and emergency preparedness and response measures. All the supporting documents are been provided as follows: Training Attendance sheets, Employee Records, Salary slips of the employees			
P.6.2 |Negative Economic Consequences			
P.6.2.1 |	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PD was found
-		☒ NO	
P.6.2.2 |	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES	
-		☒ NO	

P.6.2.2 |	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES	acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.6.2.2 |	economic impacts (negative/detrimental) to the local economy?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.6.2.2 |	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.7 |**Climate and Energy**			
P.7.1 |GHG Emissions			
P.7.1.1 |	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.7.1.1 |	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.7.2 |Energy supply			

P.7.2.1 | -	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES ☒ NO	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.7.2.1 | - -	negative impact on the availability and reliability of energy supply to other users?	☐ YES ☐ POTENTIALLY ☒ NO	
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.8 | Water			
P.8.1 |Impact on Natural Water Patterns/Flows			
P.8.1.1 | -	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
P.8.1.1 | -	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO	
P.8.1.1 | -	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO	
P.8.1.1 | -	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.8.1.1 | - -	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES ☐ POTENTIALLY ☒ NO	
P.8.1.1 | - -	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO	
P.8.1.1 | - -	significant extraction, diversion of ground water? For example, construction of dams,	☐ YES ☐ POTENTIALLY ☒ NO	

	reservoirs, river basin developments, groundwater extraction		
P.8.1.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☒ NO	
-		☐ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.8.2 |Erosion and/or Water Body Instability			
P.8.2.1 |	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.8.2.2 |	negatively impact on the catchment area?	☐ YES	
-		☐ POTENTIALLY	
P.8.2.5 |	*If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.*	☒ NO	
P.8.2.6 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9 |Environment, ecology and land use			
P.9.1 |Landscape Modification and Soil			
P.9.1.1 |	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project? If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during
-		☒ NO	
P.9.1.3 |			

	reducing tillage and ecologically harmful substances.		the remote audit and interview.
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.1.4 |	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.1.4 |	if answer to above question "yes" or "potentially", does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES	
-		☒ No	
-		☐ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9.2 |Vulnerability to Natural Disaster			
P.9.2.1 |	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.2.2 |	any potential risks that require emergency preparedness and response planning?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.2.2 |	if answer to above question "yes" or "potentially", did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES	
-		☒ No	
-		☐ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9.3 |Biosafety and Genetic Resources			
P.9.3.1 |	Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found
-		☒ NO	

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			acceptable and was confirmed by the validation team during the remote audit and interview.
NA			
Would the project involve or lead to:			
P.9.3.1 | - -	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES ☐ POTENTIALLY ☒ NO	
P.9.3.1 | - -	If answer to above question is "yes" has a risk assessment by a competent Expert stakeholder been carried out in accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	☐ YES ☒ No ☐ NA	
P.9.3.2 | - -	If answer to above question is "yes" has any risks identified in the risk assessment?	☐ YES ☒ No ☐ NA	
P.9.3.3 | - -	Forestry (for example Afforestation/Reforestation) involving GMO planting? Note - Forestry projects (for example Afforestation/ Reforestation) involving GMO planting are not eligible for Certification under Gold Standard for the Global Goals.	☐ YES ☒ No ☐ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9.4 |Release of pollutants			
P.9.4.1 | -	Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	☐ YES ☒ NO	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.4.1 | - -	any potential risk of pollutant release that cannot be avoided?	☐ YES ☐ POTENTIALLY ☒ NO	
P.9.4.3 | - -	If answer to above question is "Yes" or "potentially", has the project identified all potential pollution sources that may degrade the quality of soil, air, surface, and groundwater in the project area?	☐ YES ☐ No ☒ NA	

P.9.4.2 |	If answer to above question is "Yes" or "potentially", do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	☐ YES	
-		☐ No	
-		☒ NA	
P.9.4.3 |	If answer to above question is "Yes", is there a monitoring plan to ensure that mitigation measures are implemented, and resources are protected?	☐ YES	
-		☐ No	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9.5 |Hazardous and Non-hazardous Waste			
P.9.5.1 |	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☒ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☐ NO	
P.9.5.3 |	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☒ YES	
-		☐ NO	
P.9.5.5 |	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☒ YES	
-		☐ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
P.9.5.1 and P.9.5.3- A hazardous waste inventory is maintained as per the provisions of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008. The waste is disposed to the waste handlers and the firm complies with all the local laws for monitoring and disposal.			
Would the project involve or lead to:			
P.9.5.1 |	the generation and management of waste materials?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.5.1 |	treatment, destruction, or disposal of waste material?	☐ YES	
-		☒ No	
-		☐ NA	
P.9.5.1 |	If answer to above question is "Yes", does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☐ YES	
-		☐ No	
-		☒ NA	
P.9.5.3 |	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES	
-		☒ No	
-		☐ NA	

P.9.5.3 |	If answer to above question is "yes", does project has measures in place to address health risks?	☐ YES	
_		☐ No	
_		☒ NA	
P.9.5.4 |	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
P.9.6 |Pesticides & Fertilisers			
P.9.6.1 |	Does the project involve the use of chemical pesticides?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
_		☒ NO	
P.9.6.5 |	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES	
_		☒ NO	
P.9.6.6 |	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES	
_		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.6.1 |	chemical pesticides use for pest management?	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.9.6.4 |	If answer to question above is "yes" or "potentially", does project has documented Chemical Pesticides Policy in place?	☐ YES	
_		☐ No	
_		☒ NA	
P.9.6.5 |	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.9.6.5 |	If answer to question above is "yes" or "potentially", does project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals?	☐ YES	
_		☐ No	
_		☒ NA	

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9.7 |Harvesting of Forests	-	-	
P.9.7.1 |	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
-			
P.9.7.1 |	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES	
-		☒ NO	
P.9.7.1 |	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
P.9.8 |Food Security			
P.9.8.1 |	Does the project involve the risk of negatively influencing access to and availability of food for people affected?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to the question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.8.1 |	modification of the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9.9 | Animal Welfare			

P.9.9.1 |	Does the project involve any risks to animal welfare? Animal welfare shall be ensured by providing access to water and food, appropriate environment, humane treatment, and staff training. Evidence of mistreatment will be treated as an immediate non-conformity.	☐ YES	
_		☒ NO	
P.9.9.2 |	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES	
-		☒ NO	
P.9.9.4 |	Does the project involve the risk of administering synthetic growth promoters, including hormones?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.9.1 |	animal husbandry or harvesting of fish populations or other aquatic species?[2]	☐ YES	
_		☒ No	
_		☐ NA	
P.9.9.1 |	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES	
_		☐ POTENTIALLY	
_		☒ NO	
P.9.9.3 |	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES	
_		☒ NO	
_		☐ NA	
P.9.9.5 |	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES	
_		☒ No	
_		☐ NA	
P.9.9.6 |	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES	
_		☒ No	
_		☐ NA	
P.9.9.7 |	inappropriate spacing per animal and stocking rates per land unit?	☐ YES	
_		☒ No	
_		☐ NA	
P.9.9.8 |	inadequate measures to address the specific needs of aquatic animals?	☐ YES	
_		☒ No	
_		☐ NA	

The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.

P.9.9.9 | P.9.9.10 |	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or more relevant and credible standards and utilise available technologies.	☐ YES	
-		☒ No	
-		☐ NA	
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
P 9.9.1 -The project will not have any effect on the biodiversity of the region as the location of the project does not impinge on any biodiversity hotspots, nature reserves, national parks, or habitat for rare plants and/or animals.			
P.9.10 |High Conservation Value Areas and Critical Habitats	-	-	
P.9.10.1 |	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES	The PA does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
P.9.10.2 |	Does the project in the project area or area of downstream impacts have risks to the following: native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES	
-		☒ NO	
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.10.1 |	identified habitats as HCV areas and or Critical habitats?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.10.1 |	If answer to above question is "yes", does the project have any risks that could negatively impact the catchment, project success, and surrounding HCV and ecological assets, as well as any measurable adverse impacts on the criteria or biodiversity values for which the critical habitat was designated, and on the ecological processes supporting that biodiversity?	☐ YES	
-		☐ NO	
-		☒ NA	
P.9.10.1 |	If answer to above question is "yes", is a robust, appropriately designed, and long-term Habitats and Biodiversity Action Plan absent which will make the project unable to	☐ YES	
-		☒ NO	
-		☐ N/A	

	achieve net gains of those biodiversity values for which the critical habitat was designated?		
P.9.10.2 |	Does the project area or area of downstream impacts have native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.10.2 |	If the answer to the above question is "yes", will the project have any adverse effects on these areas?	☐ YES	
-		☐ No	
-		☒ NA	
P.9.10.3 |	If the answer to above question is "yes", does the project has opportunities to minimise unwarranted conversion or degradation of the habitat and to enhance the habitat as part of its development?	☐ YES	
-		☐ No	
-		☒ NA	
P.9.10.4 |	Is the project applying Land Use & Forest Activity Requirements and managing a minimum 10% of the project area to protect or enhance the biological diversity of native ecosystems following HCV approach as per the given requirements?	☐ YES	
-		☒ No	
-		☐ NA	
P.9.10.5 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
P 9.10.1 - The project will not have any effect on the biodiversity of the region as the location of the project does not impinge on any biodiversity hotspots, nature reserves, national parks, or habitat for rare plants and/or animals.			
P.9.11 |Endangered Species			
P.9.11.1 |	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.11.2 |	distortion of habitats of endangered species?	☐ YES	
-		☐ Potentially	
-		☒ NA	

P.9.11.2 |	If answer to the above question is "yes", does the project plan to protect and enhance them?	☐ YES	
-		☐ POTENTIALLY	
-		☐ NO	
-		☒ N/A	
P.9.11.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES	
-		☐ NO	
-		☒ NA	
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			
P.9.12 |Invasive Alien species			
P.9.12.1 |	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	☐ YES	The PD does not identify any risk against the defined principle. The justification provided by the PP was found acceptable and was confirmed by the validation team during the remote audit and interview.
-		☒ NO	
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.			
NA			
Would the project involve or lead to:			
P.9.12.1 |	risk of introducing any alien species with a high risk of invasive behaviour regardless of whether such introductions are permitted under the existing regulatory framework?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.12.1 |	risk of potential accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species.	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
P.9.12.2 |	risk of spreading alien species into areas in which they have not already been established?	☐ YES	
-		☐ POTENTIALLY	
-		☒ NO	
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.			
NA			

[1] Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate

sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

[2] 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

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Appendix 5: Energy Meter details

For SB Energy One Private Limited (Adani Solar Energy Jodhpur Three Private Limited):

Meter Number	Accuracy Class & Make	Calibration Date	Due date of Calibration
For Plot L1 A			
02843291 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
02843292 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
02843293 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025
For Plot L1 B			
2843294 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843295 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843296 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025
For Plot L1 C			
2843297 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843298 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843299 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025
For Plot L1 D			
2843300 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843301 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843302 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025

Meter Number	Accuracy Class & Make	Calibration Date	Due date of Calibration
For Plot L4 A			
2843327 (Main Meter)	0.2 s, Elster	16/09/2020	15/09/2025
2843328 (Check Meter)	0.2 s, Elster	16/09/2020	15/09/2025
2843329 (Standby Meter)	0.2 s, Elster	16/09/2020	15/09/2025
For Plot L4 B			
2843330 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843331 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843332 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025
For Plot L4 C			
2843333 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843334 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843335 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025
For Plot L4 D			
2843336 (Main Meter)	0.2 s, Elster	16/09/2020	15/09/2025
2843337 (Check Meter)	0.2 s, Elster	16/09/2020	15/09/2025
2843338 (Standby Meter)	0.2 s, Elster	16/09/2020	15/09/2025

Meter Number	Accuracy Class & Make	Calibration Date	Due date of Calibration
For Plot L5 A			
2843339 (Main Meter)	0.2 s, Elster	16/09/2020	15/09/2025
2843340 (Check Meter)	0.2 s, Elster	16/09/2020	15/09/2025

2861545 (Standby Meter)	0.2 s, Elster	16/09/2020	15/09/2025
For Plot L5 B			
2861546 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2861547 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2861548 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025
For Plot L5 C			
2861549 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2861550 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2861551 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025
For Plot L5 D			
2861552 (Main Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2861553 (Check Meter)	0.2 s, Elster	15/09/2020	14/09/2025
2843326 (Standby Meter)	0.2 s, Elster	15/09/2020	14/09/2025

For SB Energy Three Private Limited (Adani Solar Energy Jodhpur Four Private Limited):

Meter Number	**Accuracy Class & Make**	**Calibration Date**	**Due date of Calibration**
For Plot P2F1			
RJB92278 (Main Meter)	0.2 s, Secure	25/09/2019	24/09/2024
RJB92275 (Check Meter)	0.2 s, Secure	25/09/2019	24/09/2024
RJB92281 (Standby Meter)	0.2 s, Secure	25/09/2019	24/09/2024
For Plot P2F2			
RJB92279 (Main Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92276 (Check Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92282 (Standby Meter)	0.2 s, Secure	25/09/2019	24/09/2024
For Plot P2F3			
RJB92280 (Main Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92277 (Check Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92283 (Standby Meter)	0.2 s, Secure	24/09/2019	23/09/2024

Meter Number	**Accuracy Class & Make**	**Calibration Date**	**Due date of Calibration**
For Plot P3F1			
RJB92288 (Main Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92289 (Check Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92292 (Standby Meter)	0.2 s, Secure	24/09/2019	23/09/2024
For Plot P3F2			
RJB92285 (Main Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92284 (Check Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92291 (Standby Meter)	0.2 s, Secure	24/09/2019	23/09/2024
For Plot P3F3			
RJB92286 (Main Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92287 (Check Meter)	0.2 s, Secure	24/09/2019	23/09/2024
RJB92290 (Standby Meter)	0.2 s, Secure	24/09/2019	23/09/2024

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Appendix 6: Design changes

Details of proposed or actual design change

In the registered GS PDD, the PLF value considered for the project's additionality was 25% as per DPR with annual expected generation as 438,000,000 kWh.

However as per actual issuance records presented below, PD has achieved higher generation for the complete 1st crediting period.

Sr. No.	Monitoring period	Estimated generation	Actual generation
1	01/01/2019 to 31/08/2019	554,273 MWh	649,658 MWh
2	01/09/2019 to 30/09/2020	903,260 MWh	1,056,224.83 MWh
3	01/10/2020 to 30/09/2021	832,550 MWh	1,006,796.48 MWh
4	01/10/2021 to 30/09/2022	832,550 MWh	971,188 MWh

Thus, it was found that the PLF value considered at the time of investment decision as per DPR was on the lower side as compared to actual value achieved. The maximum achieved PLF value for the 1st crediting period is 28.08%.

PD has decided to consider this PLF value for the estimation of ERs for 2nd crediting period.

PD has submitted revised investment analysis for both the sites under this project activity. All the values in this analysis are kept the same except for the PLF value which is now changed to 28.08%. VVB observed that with revised PLF value, the project still remains additional and acceptable to VVB.

Impacts of design change are discussed below

a. Additionality
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period. PD has submitted revised investment analysis for both the sites under this project activity. All the values in this analysis are kept the same except for the PLF value which is now changed to 28.08%. VVB observed that with revised PLF value, the project still remains additional and acceptable to VVB.

b. Applicability of methodology and other methodological regulatory documents with which the project activity has been certified

The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on applicability of methodology and other methodology regulatory documents.

c. Compliance with the monitoring plan of the applied methodology
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on monitoring plan of the applied methodology.

d. Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on level of accuracy and completeness of the monitoring plan.

e. Scale of the project activity
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on scale of the project activity.

f. Stakeholder consultation
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on stakeholder consultation.

g. Sustainable development criteria
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on sustainable development criteria.

h. Safeguarding assessment
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on safeguarding assessment.

i. Compliance with applicable legislation
The actual design change proposed is change in the PLF value with actual maximum achieved PLF value considered for the 2nd crediting period and VVB confirms that it has no impact on legislation compliance.

j. Only for LUF Projects: Transparent summary of all approved changes in Project Area, Eligible Area and accompanying changes in ex-ante emissions removals.

The current project is not a LUF project and hence not applicable.