

GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG) REPORT

-

DESIGN CERTIFICATION (VALIDATION)



Project Title: *70 MW Bhadla Solar power plant by Fortum Finnsurya Energy Pvt Ltd (EKIESL-CDM-APRIL-16-01)*

GS project ID: GS 5519

Internal ID: 25122

Customer: Fortum FinnSurya Energy Pvt. Ltd.

Date: 10/02/2023

Revision: 04

SUMMARY			
Reference No.	Date (first version)	Version No.	Date (last version)
A+SH_SYST_TQC_GS_RCP_25122	02/11/2022	04	10/02/2023
Client	Fortum FinnSurya Energy Pvt. Ltd.		
Project Title	70 MW Bhadla Solar power plant by Fortum Finnsurya Energy Pvt Ltd (EKIESL-CDM-APRIL-16-01)		
Project Participants	Fortum FinnSurya Energy Pvt. Ltd.		
Project Location	Rajasthan		
Contact Person	Mr. Mantry Shagun		
GS4GG Version: GS4GG, version 1.2 GS4GG Activity Requirements: RE Activity Requirements Version 1.4 Applied Methodology Version: ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0 https://cdm.unfccc.int/methodologies/DB/XP2LKUSA61DKUQC0PIWPGWDN8ED5PG The following tools and guidance’s have been followed (References): • Tool to calculate the emission factor for an electricity system¹ - Version 07.0 (EB 100, Annex 04) • Tool for the demonstration and assessment of additionality 7.0² • 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)³		GS4GG Principles and Requirements V 1.2 UNFCCC CDM Sectoral Scope: 1 GS4GG Scope: 2 Technical Area: 1.2	
GS4GG First PDD Version: 01 Date: 08/08/2022		GS4GG Final PDD Version: 02 Date: 12/10/2022	
Estimated Annual Emission Reductions: 112,980 tCO ₂ e per year			
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	121,420	MWh/Annum
SDG 8: Decent Work and Economic Growth	Trainings	1	No of Training
	Employees	10	No of Employees

¹ <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf>

² <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf>

³ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf>

	Income Generation	Better than the minimum wage requirements: 357 INR/day.	INR
SDG 13: Climate Action (mandatory)	Emission Reduction	112,980	tCO ₂ /Annum

Design Certification Summary

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by Fortum FinnSurya Energy Pvt. Ltd. to perform the GS RCP validation of "70 MW Bhadla Solar power plant by Fortum Finnsurya Energy Pvt Ltd (EKIESL-CDM-APRIL-16-01) applying the CDM approved methodology ACM0002, Version 20.0^{/3/}.

The management of Fortum FinnSurya Energy Pvt. Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

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

- Gold Standard for Global Goals (GS4GG) PDD^{/1/};
- The applied monitoring methodology^{/3/};
- Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board^{/4//5/};
- GS4GG "Principles and Requirements" Version 1.2, "Renewable Energy Activity Requirements" version 1.4,
- "Stakeholder Consultation and Engagement Requirements and Safeguarding Principles and Requirements, Version 2.0"^{/6/}
- All information and references relevant to the project activity's resulting in estimated emission reductions.

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

The report and the annexed validation checklist describe a total of 09 findings which include:

- 06 Corrective Action Requests (CARs);
- 00 Clarification Requests (CLs/CRs);
- 02 Forward Action Requests (FARs) by SustainCert (during previous performance review)
- 01 Forward Action request (FARs) by Applus

The PD has responded these findings by modifying the GS4GG PDD and providing adequate additional explanations and evidences. Applus+ Certification confirm that all the findings have been "closed out" before submitting the request for registration to GS board.

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

ASSESSMENT TEAM		
Team Members	Type of Resource ⁴	Organization (for OEs)
Lead Auditor: Dr. Atul Takarkhede	☐ IR ☐ EI ☒ OE	True Quality Certifications Private Limited
Technical Expert: Dr. Atul Takarkhede	☐ IR ☐ EI ☒ OE	True Quality Certifications Private Limited
Technical Reviewer: Mr. Denny Xue	☐ IR ☒ EI ☐ OE	Applus+ LGAi

⁴ IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

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
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non-Governmental Organization
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
OM	Operational Margin
PD	Project Developer
PS	Project Standard
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

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1. INTRODUCTION

Fortum FinnSurya Energy Pvt. Ltd. has commissioned Applus+ Certification to perform a validation of "70 MW Bhadla Solar power plant by Fortum Finnsurya Energy Pvt Ltd (EKIESL-CDM-APRIL-16-01)" (hereafter referred to as the project activity) in the state of Rajasthan in India. This validation report summarizes the findings of the validation of the project, performed on the basis of UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures and the subsequent decisions by the CDM/GS Executive Board as well as requirement of Gold Standard.

The project activity primarily aims at reducing Green House Gas (GHG) emissions through utilization of renewable energy technology for generation of electrical energy. The electricity generated from the project activity (121,420 MWh annually) will displace equivalent electricity generation in grid connected power plants. The project activity will reduce the anthropogenic GHG emissions (112,980 tCO₂e as an annual average and 564,903 tCO₂e through the crediting period of 5 years renewable)^{2/} associated with the equivalent amount of electricity generation from Indian grid connected power plants which are predominantly fossil fuel-based power plants.

The project activity involves installation and operation of 70 MW Solar power project in the state of Rajasthan in India. The electricity generated from the project activity will be exported to Indian Grid.

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

The total cumulative capacity of the current project activity is 70 MW; which involves operation Solar PV project in the state of Rajasthan in India. The project is promoted by Fortum FinnSurya Energy Pvt. Ltd.

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

Project Investors' Name	Fortum FinnSurya Energy Pvt. Ltd.
Capacity in MW	70 MW (AC)
Location	Geographical co-ordinates: N 27° 28' 7.00", E 71° 58' 17.00" Village: Bhadla, District: Jodhpur, Rajasthan, India
Registration with UNFCCC	06/11/2017 ⁵
Project commissioning	02/12/2017 (for B-31) and 05/12/2017 (for B-30)
Date of design certification with GS	03/01/2018
CER issuance under UNFCCC	06/11/2017 to 31/12/2020
Crediting period under UNFCCC	06/11/2017 to 05/11/2024
1st crediting period with GS4GG	06/11/2017 to 05/11/2022
Transition to GS4GG	03/01/2018
2nd crediting period with GS4GG	06/11/2022 to 05/11/2027

⁵ <https://cdm.unfccc.int/Projects/DB/Applus1506003422.59/view>

Assessment team confirmed above details through google map software^{/7/}, CDM and GS4GG websites, copies of documents such as Letter of Award^{/21/}, PPA^{/22/}, EPC agreement^{/23/} during the audit.

1.1 Objective

The purpose of a validation is to have an independent third-party assessment of the GS4GG PDD and compliance with the GS requirements as described in the Gold Standard documentation and supporting documents by the client. Validation is part of the GS4GG project cycle and will finally result in a conclusion by Applus+ Certification whether a project activity is valid and should be submitted for registration of a project activity rests at the GS and the Parties involved.

1.2 Scope

The validation scope is defined as an independent and objective review of the project PDD, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against all applicable CDM and GS requirements including the approved baseline and monitoring methodology ACM0002, version 20.0^{/3/}. The validation was based on the requirements in the CDM validation and verification standard for project activities, version 03^{/4/} and Gold Standard GS4GG requirements^{/6/}.

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

2. METHODOLOGY

The project assessment is based on the CDM validation and verification standard for project activities, version 3.0, Gold Standard requirement for GS4GG and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the project activity are appointed. Once the project is made available for Applus+ Certification, the members of the assessment team carried out:

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

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

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

Validation Checklist Table 3: Resolution of Audit Findings
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Type:	☒ CAR	☐ CL/CR	☐ FAR	Number:	
Raised by:		<i>Pankaj Kumar</i>			
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 Assessment team should be included here.					
Documentation provided as evidence by Project Participant					
The evidences provided by the project participants should be included here.					
Auditor's assessment comment				Date:	
This section should include how the audit finding is assessed by the assessment team.					

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

2.1 Appointment of the assessment team

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

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

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

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

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

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Dr. Atul Takarkhede	LA/TE	YES	YES	YES	YES

Mr. Denny Xue	TR/ TE	YES	YES	YES	NA
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The complete list of CVs is included as Appendix 2 of this report.

2.2 Document review

The GS4GG PDD submitted by the Client was reviewed against the approved methodology and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done. A complete list of all documents and evidence material reviewed is included in Section 4 of this report.

2.3 Follow up Interviews

A complete desk review of the PDD as well as all applicable country legal requirement and supportive evidences have been checked by the Assessment team.

- Assessment team has performed interview with PD in order to check implementation, current situation, evaluation of data management, QA/QC system, project technology, training provided, monitoring, calibration etc. Interview questions were filled as per Assessment 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.
- Assessment team has performed interview with randomly selected local stakeholders to check the monitoring of GS4GG sustainable parameters like employment and training, 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 and supporting documents.

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

Interviewed Personnel	Functions	Organization	Date	Subject
Mr. Manytry Shagun	PD representative	Fortum FinnSurya Energy Pvt. Ltd.	27/09/2022	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 and practice of the operational personnel, Monitoring data
Mr. Shivansh Pandey	Consultant	Infinite Solutions		
Mr. Ramlal Meena	Villager	Local stakeholder		
Mr. Harish Kumar Jaat	Villager	Local stakeholder		
Mr. Dayaram Patel	Villager	Local stakeholder		

				management, Maintenance, Compliance to regulatory requirements, Environmental and social issues, Projects contribution to sustainable development
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2.4 Resolution of Clarification and Corrective Action requests

The objective of this phase of the validation was to resolve the requests for corrective actions and clarification and any other outstanding issues which needs to be clarified for Applus+ Certification positive conclusion on the GS4GG PDD. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Project Developer and Applus+ Certification to guarantee the transparency of the validation process, the concerns raised and responses given are summarized in Appendix 1 below.

The Gold Standard GS4GG PDD version 02 submitted on 12/10/2022 serves as the basis for the final assessment presented.

2.5 Internal Quality Control

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

After confirmation of the Project Developer, 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 GS4GG project.

3.2 Participation

Fortum FinnSurya Energy Pvt. Ltd. is the project developer from the host party India. The host country involved is parties to the Kyoto Protocol and meet and requirements to participate in the Gold Standard.

3.3 Scale of the project

The project activity is identified as a Large-scale project in section A.4 of the GS4GG PDD applying CDM large-scale methodology ACM0002, Version 20.0. The total capacity of the power project is 70 MW as validated from the Letter of Award and PPA. Since the design capacity of the project activity is more than 15 MW, therefore, the project is correctly classified as Large-scale project. Assessment team also checked the requirement of latest applicable methodology ACM0002,

version 20.0 and confirms 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 CO₂ emission by replacing equivalent amount of electricity from the grid of India. The project type is identified as renewable energy project in section A.4 of the GS4GG PDD. The project activity complies with the requirement of 'the generation and delivery of energy services (e.g., electricity) from non-fossil and non-deployable energy sources' as defined in GS4GG. The project activity generates and supplies renewable electricity to the regional grid thereby displacing the electricity which would have generated in fossil fuel-based power plants connected to the grid.

3.4 Greenhouse Gases

The project activity leads to displacement of electricity generation from fossil fuel-based power plants connected to the regional grid by renewable energy generated using solar power. The operation of the project activity will result in reduction of carbon-dioxide from the atmosphere due to displacement of electricity in grid by the renewable energy. Hence, the greenhouse gas identified in the GS4GG 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 ₂ O	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 ₂ O	No	Project activity does not emit N ₂ O
		Other	No	Project activity does not emit other forms of GHG emissions

3.5 Project timeframe

Other certification scheme: The project activity was registered with UNFCCC as CDM Project ID 10403⁶. It has issued CERs from UNFCCC for the period of 06/11/2017 to 31/12/2020. The project was registered with GS on 04/01/2018 and has transitioned to GS4GG on 02/05/2022. It is confirmed that Project Developer (PD) has not registered the project with any other certification scheme and has not considered issuance under CDM for the period post 31/12/2022. A declaration from PD confirms that the project activity is not taking any REC Benefits under REC mechanism^{18/}. Assessment team also checked the REC website⁷ and confirms that the project is not undertaking

⁶ CDM: 70 MW Bhadla Solar power plant by Fortum Finnsurya Energy Pvt Ltd (EKIESL-CDM-APRIL-16-01) (unfccc.int)

⁷ <https://recregistryindia.nic.in/>

any REC benefits at present nor intended to take it in near future. The project has applied for GS4GG retroactive validation. This is validation for renewal of crediting period and PD has submitted a declaration that there will not be double accounting of emission reduction for the project activity/^{18/}.

3.6 Project Boundary

As per ACM0002, version 20.0^{3/} i.e., the latest version of the 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 project power plant is connected to". The project boundary includes the solar project, sub-stations, grid and all power plants connected to grid. The project activity will evacuate power to the Indian electricity grid. Therefore, the entire Indian electricity grid and all connected power plants have been considered in the project boundary for the GS4GG project activity. The same is checked by the assessment team during the validation audit and found correct.

3.7 Baseline Identification

Being a large-scale grid connected solar energy generation project, PD developed the project based on the Methodology ACM0002, Version 20.0. As per paragraph 41 of the methodology version 20.0: "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 to calculate the emission factor for an electricity system" version 7.0^{5/}.

The project activity involves setting up of solar 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 Indian 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 Indian grid. Hence, the baseline for the project activity is the equivalent amount of power from the Indian grid. As the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline and pre-project scenario is same.

Methodology Procedure as per tool 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,

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.

The validity of the current baseline is assessed using the following Sub-steps:

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

If the current baseline complies with all relevant mandatory national and/or sectoral policies which have come into effect after the submission of the project activity for validation or the submission of the previous request for renewal of the crediting period and are applicable at the time of requesting renewal of the crediting period, go to Step 1.2.

If the current baseline does not comply with relevant mandatory national and/or sectoral policies, then assess based on the examination of current practice in the country or region in which the policies apply, whether those policies are systematically not enforced and that non-compliance with those requirements is widespread in the country or region. If the current baseline is not in compliance with the relevant mandatory national and/or sectoral policies or if it cannot be shown that the policies are systematically not enforced and that noncompliance with those policies is widespread in the country or region, then the current baseline needs to be updated for the subsequent crediting period.

Step 1.2: Assess the impact of circumstances

Assess the impact of circumstances existing at the time of requesting renewal of the crediting period on the current baseline emissions, without reassessing the baseline scenario. In the situation where the baseline scenario identified at the validation of the project activity was the continuation of the current practice without any investment, an assessment of the changes in market characteristics is required for the renewal of the crediting period.

Evaluate whether the conditions used to determine the baseline emissions in the previous crediting period are still valid. Assess the availability of new fuels or raw materials and the impact of electricity or fuel prices in the identification of the current practice for the baseline emissions; If the new circumstances make a continued validity of the current baseline not plausible, then the current baseline needs to be updated for the subsequent crediting period.

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

This sub-step should only be applied if the baseline scenario identified at the validation of the project activity was the continuation of use of the current equipment(s) without any investment and, the projects proponents or third party (or parties) would undertake an investment later due, for example, to the end of the technical lifetime of the equipment(s) before the end of the crediting period or the availability of a new technology.

Assess whether the remaining technical lifetime of the equipment that would have continued to be used in the absence of the project activity, as determined in the CDM-PDD or CDM-PDD-REN, exceeds the crediting period for which renewal is requested. Take into consideration the market penetration of different technologies. Evaluate the penetration rate of different technologies that are available in the market and evaluate how they could affect the baseline. If the baseline scenario of the project activity is the continuation of use of the current equipment(s) without any investment and the projects proponents or third party(ies) will undertake an investment later, but before the end of a crediting period, then the current baseline needs to be updated for that

crediting period or the crediting of emission reductions should be limited to the period before the baseline equipment would cease its operation.

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

Assess whether data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period are still valid or whether they should be updated. Updates should be undertaken in the following cases:

- Where IPCC default values are used, the values should be updated if any new default values have been adopted and published by the IPCC, for example, in guidelines for national GHG inventories, IPCC assessment report or special reports by the IPCC;
- 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 can not be updated because the historical situation does not exist anymore as a result of the CDM project activity.

If any of the data and parameters that were only determined at the start of the crediting period and not monitored during the crediting period are not valid anymore, the current baseline needs to be updated for the subsequent 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 needs to be updated.

Therefore step 2 is used

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

This step is only applicable if any of the Steps 1.1, 1.2, 1.3 and/or 1.4 showed that the current baseline needs to be updated.

Step 2.1: Update the current baseline

Update the current baseline emissions for the subsequent crediting period, without reassessing the baseline scenario, based on the latest approved version of the methodology applicable to the project activity. The procedure should be applied in the context of the sectoral policies and circumstances that are applicable at the time of request for renewal of the crediting period.

Step 2.2: Update the data and parameters

If the application of Step 1.4 showed that the data and/or parameter(s) that were only determined at the start of the crediting period and not monitored during the crediting period are not valid anymore, project participants should update all applicable data and parameters, following the guidance in Step 1.4.

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 parameters are followed for estimating the baseline emissions. Hence as per the approved consolidated Methodology ACM0002, Version 20.0, the baseline of the project is as follows:

Project activity involves setting up of solar power project to harness the power of solar energy to produce electricity and supply to the grid, 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".

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.

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:

1. The operating margin is calculated as per the latest version of Baseline CO₂ Emission Database, Version 17.0, October 2021 published by Central Electricity Authority (CEA), Government of India available to the project participant. The operating margin calculation is checked by the assessment team and found correct.
2. The build margin is considered from latest version of Baseline CO₂ Emission Database, Version 17.0, October 2021 published by Central Electricity Authority (CEA), Government of India available to the project participant, as per "Tool to calculate the emission factor for electricity system" version 07. The value considered is checked by the assessment team and found correct.
3. The combined margin calculation is carried out as per "Tool to calculate the emission factor for electricity system" version 07.

The value considered is checked by the assessment team and found correct.

The above selected baseline is correct and thus applicable to the project activity and in line with approved methodology.

The combined margin ($EF_{grid,CM,y}$) is the result of a weighted average of two emission factor pertaining to the electricity system: the operating margin (OM) and build margin (BM).

Calculations for this combined margin must be based on data from an official source (where available) and made publicly available. The CEA database version 17 was the latest available data at the time of GS4GG PDD submission to VVB for validation, hence same is considered for emission factor calculations.

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

Parameter	Value	Nomenclature	Source
EF _{grid,CM,y}	0.9305 tCO ₂ /MWh	Combined margin CO ₂ emission factor for the project electricity system in year y	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Baseline CO ₂ Emission Database, Version 17.0 ⁸ , October 2021 published by Central Electricity Authority (CEA), Government of India
EF _{grid,OM,y}	0.9522 tCO ₂ /MWh	Operating margin CO ₂ emission factor for the project electricity system in year y	Calculated as the last 3-year (2018 - 19, 2019-20, 2020-21) generation-weighted average, sourced from Baseline CO ₂ Emission Database, Version 17.0, October 2021 published by Central Electricity Authority (CEA), Government of India
EF _{grid,BM,y}	0.8653 tCO ₂ /MWh	Build margin CO ₂ emission factor for the project electricity system in year y	Considered based on the latest year i. e. 2020-21, sourced from Baseline CO ₂ Emission Database, Version 17.0, October 2021 published by Central Electricity Authority (CEA), Government of India

The value for EF_{grid,CM,y} for CP1 was compared with the value for CP2 and it is concluded by the assessment team that the value for CP2 chosen by the project developer is conservative one.

3.8 Eligibility Principles Assessment

Principle 1. Contribution to Climate Security & Sustainable Development

The baseline scenario and the emission reduction calculations have been performed as per the PDD. The grid emission factor, in the GS PDD, has been calculated in-line with the provisions of applied methodology ACM0002, Version 20.0. The latest applicable version of "Tool to calculate the emission factor for an electricity system" is version 07.

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

Applicability 1: Assessment team checked that the project activity is installation of a new grid connected 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.

⁸ <https://cea.nic.in/cdm-co2-baseline-database/?lang=en>

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

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

OM, BM and CM are estimated using the tool under section B.4 of the PDD for calculating baseline emissions.

The project activity is grid connected project activity and thus emission factor is calculated and thus OM, BM and CM are estimated using the tool under section B.4 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.

Applus+ Certification confirms that the application of the baseline methodology is transparent and conservative and confirms that the chosen baseline and monitoring methodology i. e. ACM0002, version 20.0 is applicable to the project activity and latest version of the methodology is appropriately applied.

The project activity applies grid emission factor as per the latest available CEA database version 17 and the emission factor applied is 0.9305 tCO₂/MWh. This calculated emission factor is conservative as per tool.

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

I. Social well-being:

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

II. Economic well-being:

The project activity generates permanent and temporary employment opportunity within the vicinity of the project. The 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 step forward in harnessing the untapped solar potential and further diffusion of the solar PV 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 equipments through plant technical specifications^{/25/} shared by PD and as confirmed during onsite visit. PD confirms that the details as mentioned in the latest version of GS4GG PDD^{/1/} are correct.

The project activity aims to harness solar energy through installation of solar PV with total installed capacity of 70 MW in Jodhpur district, Rajasthan, India.

The project is commissioned and exact geographical co-ordinates were shared by PD. These were corss checked using google map software.

The project activity involves installation of 70 MW grid connected solar photovoltaic power plant. The PV system will mainly consist of PV modules, module mounting structures, inverters, regulators, monitoring devices.

Technical detail of the equipment	Remark
Technology	Solar PV Module
Solar photovoltaic module	First solar series 4TM PV Module
No of Modules	112.5Wp: - 88800, 115Wp: - 587000, 117.5Wp: - 85200

Make	First Solar
Capacity	112.5Wp, 115Wp, 117.5Wp
No of inverters	70
Make	ABB
Capacity	1000KVA
No. of transformers	18 (ITD) + 2 (PT)
Technical & Operational Lifetime	25 years

The technical details of the plant confirmed registered CDM PDD and supporting evidences. The solar PV modules have a useful life of 25 years.

Project Developer has submitted SDG impact tool assessment which was checked and it was confirmed that the Project will lead to contribution for SDG 07, 08 and 13 as mentioned which is found appropriate.

Principle 2: Safeguarding Principles

The Safeguarding principles assessment is as below:

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)
Principle 1. Human Rights			
1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal	Yes	1. The Project is not in conflict with the economic livelihood or other issue of the local community. Thus, the Project does not cause any human rights abuse and respects internationally proclaimed human rights issue. Project proponent had conducted stakeholder's	Parameter "Income Generation" have been already included in the monitoring plan for equal pay for equal work during all phases of the project

Declaration of Human Rights		consultation and sought their opinion.	
2. The Project shall not discriminate with regards to participation and inclusion		2. The Project is not expected to cause any human rights abuse. As a member of United Nations ⁹ and part of UN Agreement on Human Rights ¹⁰ , it is ensured by law in India that no action can be taken against human rights. The Human Rights Policy also states that the PP will embrace the diversity of individuals, always treat one another with dignity and respect, and not engage in any acts of direct or indirect discrimination based on protected characteristics; Also, will take action when others engage in conduct that violates this policy.	
Principle 2. Gender Equality			
1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women	No	1. The Project do not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women. For this project, every employee is treated with respect and	Not Required

⁹ <https://labour.gov.in/lcandilasdivision/india-ilo>

¹⁰ <https://www.ilo.org/newdelhi/lang-en/index.htm>

2. Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work 3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks 4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)		afforded equitable treatment. The grievance register has maintained at site to take stakeholder feedback. There is not any sexual harassment and/or any forms of violence against women. The project does not involve any slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls. The project does not restrict of women's rights or access to resources. The project recognizes women's ownership rights regardless of marital status. 2. Projects has applied the principles of non-discrimination, equal treatment, and equal pay for equal work. The project has equal opportunity for both men and women. Fortum FinnSurya Energy Pvt. Ltd. is committed to maintaining an environment where all women, enjoy a safe, friendly and supportive working environment, free of harassment and exploitation. Fortum	
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		FinnSurya Energy Pvt. Ltd. Group is committed to providing work environment that enables employees to work without fear, prejudice, gender bias and sexual harassment and ensures that every employee is treated with dignity and respect and afforded equitable treatment. The Company will not tolerate any form of sexual harassment and is committed to take all necessary steps to ensure that its employees are not subjected to any form of harassment. Thus, the project does not involve and is not complicit in any form of discrimination based on gender difference. The project ensures participation of both men and women, and they are benefitted based on pregnancy, paternity/paternity leave, or marital status. 3. India ratified the International Convention on the Elimination of All Forms of Racial Discrimination ¹¹ on	
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¹¹ https://nhrc.nic.in/documents/india_ratification_status.pdf

		03/12/1968 with certain reservation. The project activity is in line with strategy of elimination of discrimination.	
		4. Summary of opinions and recommendations of an Expert Stakeholder is required in case of Gender responsive project activity.	
Principle 3. Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	No	1. The project developer is committed to the employee's workplace health & safety during all phases of the project. The company ensures to provide safe and healthy workplaces for employees and protecting the safety of the communities. All employees will attend health & safety trainings. This is issued in the Labor code on Occupational Safety, Health and Working Conditions and UN Agreement on Human Rights ¹²	Not Applicable
Principle 4.1 Sites of Cultural and Historical Heritage			
Does the Project Area include sites, structures, or objects with historical,	No	There is no designated archaeological or	Not Required

¹² <https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx>

cultural, artistic, traditional or religious values or intangible forms of culture?		cultural heritage site within 10 Km radius of the study area village. Law on Cultural heritage is protected against alteration, damage or removal by the "law on cultural heritage" ¹³ . No monument of cultural or historical importance is affected by the route of the transmission line. No cultural heritage/indigenous people are replaced by the project.	
>>			
Principle 4.2 Forced Eviction and Displacement			
Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No	The Project is a solar power plant planned in the land acquired by the project activity is mostly barren land.	Not required
>>			
Principle 4.3 Land Tenure and Other Rights			
a. Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership?	No	There are no uncertainties regarding land tenure, access rights, usage rights or land ownership.	No
b. For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership?			
>>			

¹³ <https://cpwd.gov.in/Publication/ConservationHertBuildings.pdf>

Principle 4.4 - Indigenous people			
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	No	There are no indigenous people present within the area of influence of the project activity.	Not Required
>>			
Principle 5. Corruption			
1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	The project is renewable energy technology and does not contribute to or reinforce corruption of any kind. The consequences for violating Anti-Corruption Laws can be severe, including significant fines, imprisonment and loss of reputation and business. India has ratified UN convention against Corruption in 2011 ¹⁴ .	Not Required
Principle 6.1 Labour Rights			
1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the	No	1. The project developer is committed to the employee's workplace health & safety during all phases of the project. All employees will attend health & safety trainings. This is issued in the Labour code on	PP is committed to provide trainings to the staff and parameter already included in the monitoring plan

¹⁴ https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XVIII-14&chapter=18&clang=_en#EndDec

ILO fundamental conventions 2. Workers shall be able to establish and join labour organisations 3. Working agreements with all individual workers shall be documented and implemented and include: a) Working hours (must not exceed 48 hours per week on a regular basis), AND b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND f) Provision for annual leave of not less than 10 days per year, not including sick		Occupational Safety, Health and Working Conditions and UN Agreement on Human Rights¹⁵. 2. The project respects fundamental right of employee. There is law in India since 1926 by The Trade Unions Act, 1926¹⁶ which protects rights of industrial trade unions and their members. PP and appointed contractors will not involve in any form of forced or compulsory labor. India has ratified ILO "C029 – Forced Labor Convention"¹⁷ 3. The working agreements with all individual workers are available which contains the guidelines that define how employees work, and the working environment to feel safe and free to learn, explore and discover.	
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¹⁵ <https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx>

¹⁶ <http://ncw.nic.in/acts/TheTradeUnionsAct1926.pdf>

¹⁷ https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102691

and casual leave. 4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion) 5. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures		4. The notice at every site is displayed containing abstract of sections 3 A & 14 of The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986.¹⁸ 5. The project owner is committed to the safe and healthy working conditions all phases of the project. All employees will attend trainings health & safety. This issue is protected by Labor code 19 and UN Agreement on Human Rights²⁰.	
Principle 6.2 Negative Economic Consequences			
1. Does the project cause negative economic consequences during and after project implementation? >>	No	The project is a renewable solar power generation project and generates various employment opportunity for the locals throughout its lifetime. Thus, there is no negative economic consequences during and after project implementation.	Not Required

¹⁸ The notice displayed containing abstract of sections 3 A & 14 of The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986 is submitted to the DOE

¹⁹ <https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx>

²⁰ <https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx>

Principle 7.1 Emissions			
Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	a. The project reduces Greenhouse Gas (GHG) emissions and fossil fuel usage compared to the baseline scenario.	Not Required
>>			
Principle 7.2 Energy Supply			
Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	No. The project activity is a grid connected renewable energy based Solar power generation project. There is no use of Wood or Biomass in the project activity. On the contrary the project generates renewable energy and supplies to the grid. Hence, it's not required to be monitored.	Not required
>>			
Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project 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?	No	The project being a solar power project thus there is no impact of water resources. The plant area does not have large rivers and streams, only small gaps flow. In the dry season, there is almost no water, only water in the rainy season.	Not Required
>>			
Principle 8.2 Erosion and/or Water Body Instability			
a. Could the Project directly or indirectly cause additional erosion and/or water body instability or	No	There is absence of sensitive ecological area (Reserve Forest area) in the core area of project. The	Not Required

disrupt the natural pattern of erosion? b. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?		removal of herbaceous vegetation from the soil and loosening of the topsoil generally causes soil erosion. However, such impacts would be primarily confined to the project site during initial periods of the construction phase and would be minimized through adoption of mitigation measures like paving and surface treatment and water sprinkling.	
>>			
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for production of crops or other products?	No	The project is established at the desert/barren land which was not used for production of crops and other products for a long time.	Not Required
>>			
Principle 9.2 Vulnerability to Natural Disaster			
Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	The project is not susceptible to decreased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme conditions.	Not Required
>>			
Principle 9.3 Genetic Resources			
Could the Project be negatively impacted by or involve genetically	No	The solar plant does not affect the herbal life.	Not Required

modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?			
>>			
Principle 9.4 Release of pollutants			
Could the Project potentially result in the release of pollutants to the environment?	No	Being a Solar power project activity, it falls under the list of White category ²¹ y projects declared by Central Pollution Control Board of India, Govt of India. This means project activity does not potentially result in release of pollutants to the environment. Nevertheless, the project takes a precautionary approach regarding environmental challenges and is not complicit in practices contrary to the precautionary principle. The environment is protected by several Laws and Regulations in India. The purpose of the "Law on Environmental	Not Required
>>			

²¹<https://www.dpcc.delhigovt.nic.in/uploads/page/Listofcategoryspdf9c347db8a14037cc1449a9a7f4701730.pdf>

		Protection ²² " is to protect the environment with principles of sustainable development and environment ²³ . The project owner also follows necessary procedures for environmental safety at the project.	
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	All hazardous and non-hazardous wastes will be disposed as per the local regulations.	Not Required as hazardous waste is handled as per Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016 of India
>>		Hazardous waste viz. waste oil used oil, used grease, wastes or residues containing oil, empty barrels/containers/ liners wastes or residues Containing oil etc. will be collected and stored in paved and enclosed area with secondary containment and subsequently sold to authorized recyclers/ Transfer storage disposal facility (TSDF) in compliance with local state pollution control board norms.	

²² https://www.indiacode.nic.in/bitstream/123456789/6196/1/the_environment_protection_act2C1986.pdf

²³ https://www.indiacode.nic.in/bitstream/123456789/4316/1/ep_act_1986.pdf

		Hazardous Waste authorization as per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 should be obtained from State Pollution Control Board.	
Principle 9.6 Pesticides & Fertilisers			
Will the Project involve the application of pesticides and/or fertilisers?	No	Not applicable for solar power plants.	Not Required
>>			
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests?	No	No, the project does not involve harvesting of forest. The Solar Panels are all developed on government & private land and all of them will belongs to PP under the lease agreement for the project lifetime only. Moreover, the project is not located with close proximity of any forest.	Not Required
>>			
Principle 9.8 Food			
Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	No. The project does not modify the quantity or nutritional quality of food available.	Not Required
>>			
Principle 9.9 Animal husbandry			

Will the Project involve animal husbandry?	No	No. Not applicable for solar project.	Not required
>>			
Principle 9.10 High Conservation Value Areas and Critical Habitats			
Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	There is no source of surface water in the Project area or its vicinity. No reserve forest / protected forest or ecological sensitive area is located near the Project site. Further as per the consultation with villagers no wild species are observed in the area. Also, no forest land is involved in this project. There is no direct threat to wild species. Nevertheless, measures must be taken to avoid all forms of man animal conflict. Adequate safeguards must be followed during construction and operation phase to prevent unwanted utilization of fertile land, forest land and forest resources.	Not Required
>>			
Principle 9.11 Endangered Species			
a. Are there any endangered species identified as potentially being present within the Project boundary	No	No. There were no endangered species or ecologically significant animal and	Not required

(including those that may route through the area)? 1. Does the Project potentially impact other areas where endangered species may be present through transboundary affects?		plant species found in the project boundary.	
>>			

The safeguarding principles relevant to the project activity are justified by PD based on supporting web links, references wherever applicable.

Also, the report on "Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects"^{17/} prepared by MNRE dated September 2013²⁴ is submitted to VVB. This report clearly mentioned that Solar PV project operations do not result in direct air pollution, noise pollution.

Furthermore, solar power projects are categorized under "White category" list of projects from "Central Pollution Control Board of India (CPCB)" on 07/03/2016. "White category of industries pertains to those industrial sectors which are practically non-polluting" considered by government of India. PP has submitted the letter (No. B-29012/ESS (CPA)/2015-16) of CPCB to all the State pollution control Board which was checked and found appropriate.

These safeguarding principles assessment is validated through references given by PD, MNRE report as mentioned above and based on audit observations and interviews.

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: Electricity produced and supplied to the grid is monitored through energy meter. 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 grid are mentioned in monitoring plan. The O&M site-in-charge shall be responsible for the regular recording of data. QA/QC Process: This parameter is monitored monthly and value of parameter will be cross checked with the invoices. The meters will be calibrated on regular frequency.

²⁴ <https://smartnet.niua.org/sites/default/files/resources/report-on-developmental-impacts-of-RE.pdf>

	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. QA/QC Process: The number of persons employed would be mentioned in the plant register, which can be crossed checked with daily attendance register, employee records, salary slips of employee or letter from O&M contractor for number of peoples 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 Corresponding indicator: 1) No. of trainings provided to the employees and O&M staff: 1 training will be provided/year), and 2) No. of project employees with number of male/female, permanent/temporary, age and person with disabilities due to project activity: 10 persons/ year. 3) Income generation better than the minimum wage requirements: 357 INR/day.
SDG 13 – Climate Action : Take urgent action to combat climate change and its impacts	Measurement Method: - The emission reduction parameter is calculated as product of net electricity supplied to grid and grid emission factor. The grid emission factor is ex-ante parameter and determined based on data obtained from "CO₂ Baseline Database for Indian Power Sector" version 17, published by the Central Electricity Authority, Ministry of Power, and Government of India. This is in line with "Tool to calculate the emission factor for an electricity system, version 07.0". The emission reductions are calculated as per methodology requirement. QA/QC Process: This parameter is calculated, and no any 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 ₂ e from the project activity.
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The SDG impact tool submitted by PD was assessed and found acceptable.

Principle 3: Stakeholder Inclusivity

As per the CDM/GS requirements, it is necessary to invite the relevant stakeholders, before the validation process starts. A stakeholder consultation meeting was held on 25/05/2016 at the Project site.

All the stakeholders have been invited through public notice to attend the stakeholders meeting. The local stakeholders' consultation meeting was attended by local persons including local villagers, local vendors and technology suppliers.

The stakeholders identified by the project participant were local villagers who are the major population of the particular area, local communities and gram panchayat (Village head), project proponent representatives, O&M Team and other people involved in the project. Assessment team verified the list of participants who attended the stakeholder meeting and feedback questionnaire and confirms the stakeholders identified are relevant. Assessment team verified the list of participants who attended the stakeholder meeting and feedback questionnaire and confirms the stakeholders identified are relevant. The Assessment team also verified the minutes of meeting to note that no negative comments were received and the same was cross checked with the information obtained during follow up interviews with the stakeholders.

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

PD has conducted a Stakeholder Feedback Round (SFR) covering the issues (if any) related to the project activity on 24/01/2017. An email was sent to all the stakeholders for the mandatory 60 days stakeholder's commenting period with a call for public feedback on the project and comments. The sample of the email was shared with VVB. The email attachment is also checked by the assessment team and found correct. Following observations are made by the VVB:

- Different representative of stakeholders like local villagers, head of panchayat, NGOs, PP employees were invited for their comments via emails during stakeholder's feedback round.
- No negative comments were received and local stakeholders were very satisfied with the project activity implementation and operation in their area.

Principle 4: Demonstration of real outcomes

The monitoring plan for the real outcomes is described below:

SDG Parameter	Indicator	Monitoring
SDG 7 : Affordable and Clean Energy	Quantity of net electricity delivered by the project plant/unit in year y in MWh	Measurement Method: - Electricity produced and supplied to the grid is monitored through energy meter. Net electricity will be calculated by state electricity board and O&M operator on monthly basis and

		provided in the share certificate/monthly report or equivalent. The other parameters used for net electricity supplied to grid are mentioned in monitoring plan. QA/QC Process: This parameter is monitored monthly, and value of parameter will be cross checked with invoices. The meters will be calibrated on regular frequency.
SDG 8: Decent Work and Economic Growth	Quantitative employment and income generation, 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. QA/QC Process: This parameter is based on records, data and no QA/QC procedure required. The DOE can confirm this parameter with interview with PP or Site in charge or employees for training and employment generation.
SDG 13: Climate Action	Emission Reductions	Measurement Method: - The emission reduction parameter is calculated as product of net electricity supplied to grid and grid emission factor. The grid emission factor is ex-ante parameter and determined based on data obtained from "CO₂ Baseline Database for Indian Power Sector" version 17, published by the Central Electricity Authority, Ministry of Power, Government of India. This is in line with "Tool to calculate the emission factor for an electricity system, version 7.0" QA/QC Process: This parameter is calculated, and no QA/QC procedure required.

Principle 5: Financial Additionality & Ongoing Financial Need

The project is registered with CDM and GS and this is renewal of crediting period. Thus, demonstration of financial additionality is not required however, PD has demonstrated ongoing financial need.

At the time of CDM registration, the project has demonstrated the additionality for 25 years of life of the project. The IRR of the project is 5% whereas the benchmark is 15.28%. Hence, the project is justifying the ongoing financial need from the Carbon revenue. Since the commissioning of project, PD is claiming carbon revenue either through CDM or GS4GG carbon scheme. Hence, the carbon revenue derived from project activity have been playing an important role in helping project owner in operating the project and contributing to SDGs, e.g providing renewable

electricity, employment and decent work and integrating to climate change measures which is found appropriate.

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

The GS4GG PDD of the project activity is checked by the assessment team and found that ACM0002, Version 20.0 is used which is latest version of methodology by UNFCCC. As the GS tool kit recommends the application of the latest version of the applied methodology along with the conservative argument of the approach followed. The latest version is ACM0002, version 20.0 and VVB confirm that the project activity is in line with the latest methodology as well.

The formula used in the GS4GG PDD was used for the calculation of emission reduction and same is found to be correct. Hence emission reduction calculation at this time of validation is conservative and appropriate.

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

$$ER_y = BE_y - PE_y$$

Where,

ER_y = Emission Reduction in tCO₂/year

BE_y = Baseline emission in tCO₂/year

PE_y = Project emissions in tCO₂/year

Baseline 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 recipient facility

$EF_{grid,CM,y}$ = Baseline emission factor

= 0.9305 tCO₂/MWh

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

$$BE_y = 121,420 \text{ MWh/yr} * 0.9305 \text{ tCO}_2/\text{MWh} = 112,980 \text{ tCO}_2/\text{yr} \text{ (round down to nearest integer)}$$

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

Therefore, $ER_y = 112,980 \text{ tCO}_2/\text{yr}$

SDG 13 Climate Actions

Year	Baseline estimate (tCO ₂ e)	Project estimate (tCO ₂ e)	Net Benefit (tCO ₂ e)
Year 1	114,116	0	114,116
Year 2	113,545	0	113,545
Year 3	112,978	0	112,978
Year 4	112,413	0	112,413
Year 5	111,851	0	111,851
Total	564,903	0	564,903
Total number of crediting years	5 years		
Annual average over the crediting period	112,980	0	112,980

PD has considered degradation factor of 0.5 per year, over 5-year crediting period and the average emission reductions per year are expected 112,980. The degradation factor of 0.5% is acceptable to the assessment team as it takes care of project component performance decline over a period.

SDG 7: Affordable and Clean Energy

Year	Baseline estimate (MWh)	Project estimate (MWh)	Net Benefit (MWh)
Year 1	0	122,640	122,640
Year 2	0	122,027	122,027
Year 3	0	121,417	121,417
Year 4	0	120,810	120,810
Year 5	0	120,206	120,206
Total	0	607,099	607,099
Total no. of crediting years	5 years		
Annual average over the crediting period	0	121,420	121,420

SDG 8: Decent Work and Economic Growth

The project leads to employment opportunities which would not have been possible in the baseline scenario. The project intends to provide employment to at least 10 persons and to provide at least 1 training per year & income generation better than the minimum wage requirements: 357 INR/day as confirmed during interview with PP representatives during onsite audit.

4. REFERENCE

S. No.	Document/Evidence/Reference/Web link, Version, Date
1.	Initial GS4GG PDD, version 01 dated 08/08/2022 GS4GG PDD, version 02 dated 12/10/2022, Final GS4GG PDD, version 03 dated 04/01/2023, based on which the final opinion is provided.
2.	Emission Reduction Sheet for the project activity, Version 1 dated 08/08/2022 Emission Reduction Sheet for the project activity, Version 02 dated 12/10/2022
3.	CDM Methodology: ACM0002, version 20.0 https://cdm.unfccc.int/methodologies/DB/XP2LKUSA61DKUQC0PIWPGWDN8ED5PG
4.	CDM validation & verification standard for project activities, version 03
5.	Tool to calculate the emission factor for an electricity system, version 7.0 Tool for the demonstration and assessment of additionality, version 07.0.0 Tool for 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
6.	GS4GG Requirements: Principles and Requirements, version 1.2 Stakeholder Consultation and Engagement Requirements, version 1.2 Renewable Energy Activity Requirements, version 1.4 Safeguarding Principles and Requirements, version 1.2
7.	Google map location of the project activity
8.	Training Records of project staff at site
9.	Declaration for non-receiving of ODA for project
10.	Universal declaration of Human Rights: http://mha.nic.in/Human_Rights_Division
11.	Ministry of Labor: http://labour.gov.in/upload/uploadfiles/files/footergallery_pdf/List%20ofILO%20Conventions%20Ratified%20by%20India.pdf
12.	National Prevention of Corruption Act of Government of India: http://www.persmin.gov.in/DOPT/EmployeesCorner/Acts_Rules/PCAct/pcact.pdf
13.	Ministry of Environment, Forest & Climate Change: http://moef.nic.in/division/environment-
14.	Minutes of Meeting for Stakeholders' Feedback Meeting
15.	Emails sent to NGO, Stakeholders, villagers for stakeholder feedback round
16.	HR employment records of the project staff on site
17.	Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects, MNRE Report
18.	Declaration of no double counting dated 11/10/2022
19.	Detailed project report
20.	Board resolution
21.	Letter of Award
22.	Power Purchase Agreement with NTPC Ltd dated 25/04/2016
23.	Erection, Procurement and Construction Agreement
24.	Technical specifications
25.	CSR Policy of Fortum FinnSurya Energy Pvt. Ltd.

S. No.	Document/Evidence/Reference/Web link, Version, Date
	EHS Policy of Fortum FinnSurya Energy Pvt. Ltd. HR Policy of Fortum FinnSurya Energy Pvt. Ltd.

5. **FINAL PROJECT DESIGN CERTIFICATION STATEMENT**

Applus+ Certification have performed a validation of the "70 MW Bhadla Solar power plant by Fortum Finnsurya Energy Pvt Ltd (EKIESL-CDM-APRIL-16-01)". The validation was performed on the basis of CDM VVS for PS, version 03, Gold Standard GS4GG guideline and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

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

By displacing fossil fuel-based electricity with electricity generated from a renewable source, the project results in reductions of CO₂ emissions that are real, measurable and give long-term benefits to the mitigation of climate change. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of annual average emission reductions of 112,980 tCO₂e per year.

The validation has been performed following the requirements of the latest version of the CDM VVS for PS, version 03, Gold Standard GS4GG guideline and on the basis of the contractual agreement.

In detail the conclusions can be summarized as follows:

- The project does not result in negative social, environmental and/or economic impacts.
- The project contributes to Environment, Social Development and Economic and technological development
- The project additionality is sufficiently justified in the GS4GG 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.

Date: 10/02/2023

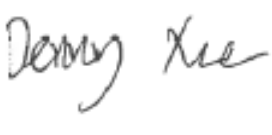
Lead Auditor: Dr. Atul Takarkhede

Tech. Expert: Dr. Atul Takarkhede

Tech. Reviewer: Mr. Denny Xue

Approver (*Applus+ Certification VVB Technical Manager*)

Mr. Agustín Calle de Miguel

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

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

Table 1. CARs/CLs from this validation:

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	01
Raised by:	Dr. Atul Takarkhede	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/10/2022
1. In Section A.1.1 of RCP PD, Demonstration of project eligibility criteria through latest applicable version of Renewable-Energy-Activity-Requirements is missing. Thus, corrective action sought. 2. PP requested to submit Power Purchase Agreement in support of legal ownership of the project activity. Kindly submit. 3. PP requested to submit Declaration confirming that there would not be double counting of credits for any particular monitoring period for both GS and CDM Scheme. Kindly submit. 4. PP is requested to reframe the language throughout the PDD as the project is implemented and contributing towards emission reduction. Thus, corrective action sought. 5. Essential information to understand the purpose of the project and how it reduces GHG emissions and/or contributes to SDGs is missing in section A.3 of RCP GS4GG PD. Thus, correction action sought.			
Project Participant's response		Date:	12/10/2022
1. Section A.1.1 of the RCP PDD has been revised as per Renewable-Energy-Activity-Requirements. 2. Power Purchase Agreement has been submitted to the Assessment team. 3. Declaration confirming that there would not be double counting of credits for any particular monitoring period for both GS and CDM Scheme has been submitted to the Assessment Team. 4. PDD has been revised. 5. Section A.3 of the RCP PDD has been revised.			
Documentation provided as evidence by Project Participant			
1. 5519_RCP_PDD_V02 2. Declaration of No Double Counting 3. Power Purchase Agreement			
Auditor's assessment comment		Date:	01/11/2022
1. Assessment team has found that, PP has submitted the revised RCP PDD and demonstrate the eligibility criteria for Renewable-Energy-Activity-Requirements in section A.1.1, thus this CAR is closed. 2. Assessment team verified that, PP has submitted the Power Purchase Agreement to the assessment team which is signed between Fortum and NTPC LTD. 3. Assessment team found that, PP has submitted the Declaration regarding No Double Counting dated 11/10/2022 to the team. 4. PP has now altered the language throughout the PDD and submitted the revised GS4GG PDD, and assessment team has verified that language of revised PDD is now in line with GS4GG PD. Hence CAR is closed. 5. Project Participant is now update is section A.3 in revised PDD and described the project activity and how this project activity is contributed to reduce the GHG emission and in achieving the SDGs. Thus, CAR is closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	02
Raised by:	Dr. Atul Takarkhede	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	04/10/2022
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", Demonstration of the validity of the original baseline is missing in the updated PDD for renewal of crediting period. Corrections requested. Moreover, Reference to Tool 11 in section B.1 of RCP PD is also missing.			
Project Participant's response		Date:	12/10/2022
Demonstration of the validity of the original baseline as per Tool 11 and reference to Tool 11 has been updated in Section B of the RCP PDD.			
Documentation provided as evidence by Project Participant			
1. 5519_RCP_PDD_V02			
Auditor's assessment comment		Date:	01/11/2022
1. Assessment team has verified that; PP is now update and demonstrate the applicability of methodology as per Tool 11 in section B.2 of revised PDD and it is found inline with applied methodology, assessment team also verified that PP has Demonstrate the validity of the original baseline in revised G4GG PDD, no other discrepancies have been found. Hence CAR is closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	03
Raised by:	Dr. Atul Takarkhede	Ref. to checklist in GS4GG PDD:	GS PDD
Description of the audit finding		Date:	04/10/2022
- PP requested to submit supporting company policies/CSR documents. Kindly submit - In response of Question 02 in section D.2, PP has mentioned "India is party to "Convention on the Elimination of All Forms of Discrimination against Women" and the project has aligned its policies which does not discriminate on gender." However, this sentence does not justify that How PP aligned with the Policy which is signed by host county. Kindly revise and submit satisfactory evidence for the same.			
Project Participant's response		Date:	12/10/2022
- Company policies has been submitted to the Assessment Team. - PP aims for a corporate culture in which future employees from different backgrounds thrive, develop, and always give their best. Fortum also had the biggest improvement in gender diversity in top management positions. Of all executive positions at Fortum, 44% are currently held by women, while 57% of the members of the Board of Directors and 33% of the members of the Management Team are women. PP is committed to zero tolerance of any form of discrimination and harassment. This is clearly expressed in Fortum's Codes of Conduct. Fortum also has separate guidelines in place for workplace harassment and discrimination. Above information can be referred from the sustainability report 2021 available publicly.			
Documentation provided as evidence by Project Participant			
- CSR Policy - Sustainability Report 2021			
Auditor's assessment comment		Date:	01/11/2022
Assessment team verified that, PP has submitted the copies of CSR related policies to the assessment team which is found error free.			

- Assessment team verified that, As per section D.2 of GS4GG PDD, Project Participant has provided employment without any gender discrimination and follow non tolerance policy regard any kind of discrimination and to verify the same PP has provided the Employment slip, salary slip of employee, appointment letter to the assessment team. Thus, **CAR is closed.**

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	04
Raised by:	Dr. Atul Takarkhede	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/10/2022
The project activity is registered with gold standard and thus demonstration of Ongoing Financial Need missing required during GS RCP with quantitative justification along with supporting documents in line with para 5.1.47 (e) of the PRINCIPLES & REQUIREMENTS, version 1.2. Corrective action sought			
Project Participant's response		Date:	12/10/2022
Section B.5.2 "Ongoing Financial Need" has been revised as follows: In line with the guidance, this information need only for those projects that are required to demonstrate financial additionality. The project activity has demonstrated the additionality at the time of project registration for 25 years of life of the project. The IRR of the project is 5% whereas the benchmark is 15.28%. Hence, the project is justifying the ongoing financial need from the Carbon revenue. Since the commissioning of project, carbon revenues are obtained which supported the project. Hence, the carbon revenue derived from project activity have been playing an important role in helping project owner in operating the project and contributing to SDGs, e.g providing renewable electricity, employment and decent work and integrating to climate change measures.			
Documentation provided as evidence by Project Participant			
1. 5519_RCP_PDD_V02			
Auditor's assessment comment		Date:	01/11/2022
Assessment team verified that, PP has mention Ongoing Financial Need" in Section B.5.2 revised of revised PDD has demonstrated the additionality at the time of project registration for life of the project. The IRR of the project is 5% whereas the benchmark is 15.28%. Hence, the project is justifying the ongoing financial need from the Carbon revenue. Since the commissioning of project, project activity has been playing an important role in helping project owner in operating the project and contributing to SDGs, e.g providing renewable electricity, employment and decent work and integrating to climate change measures. This CAR is closed.			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	05
Raised by:	Dr. Atul Takarkhede	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/10/2022
PP requested to submit Sample JMRs, logbooks etc. for all parameters required to be monitored in line with the meth requirements for the project activity. Kindly submit.			
Project Participant's response		Date:	12/10/2022
Sample JMRs and other supporting documents for all parameters to be monitored has been submitted to the Assessment Team.			
Documentation provided as evidence by Project Participant			
1. Sample JMRs 2. Sample Invoice 3. Training Records			
Auditor's assessment comment		Date:	01/11/2022

Project Participant submitted following document,
1. Copies of JMRS to verify, Quantity of net electricity generation supplied by the project plant.
2. Copies of sample invoices, these invoices can be used for cross checking the meter readings taken for the respective project activity.
3. Training and employment generation is monitored through training records.
Assessment team has reviewed the following document and verified that PP has provided actual and relevant documents of monitoring parameter, Thus CAR is closed.

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	06
Raised by:	Dr. Atul Takarkhede	Ref. to checklist in GS4GG PDD:	-
Description of the audit finding		Date:	04/10/2022
CDM Project Crediting Cycle: the project cycle shall mirror the CDM Cycle in terms of crediting period (i.e., 07 years) but the total length of crediting period will end along with CDM CP ending on 05/11/2024. Thus, Revised Crediting period could not be beyond 2 years. Correction action sought throughout the RCP PD.			
Project Participant's response		Date:	12/10/2022
As per Transition Requirements "Transition project, PoA/CPAs shall follow GS4GG certification cycle for crediting period renewal (e. g.5 years) in order to issue or convert issued emission reductions to GSVERs under GS4GG."			
Crediting Period under CDM is from 06/11/2017 to 05/11/2024 (Renewable)			
Hence Crediting period in GS are as follows:			
CP1: 06/11/2017 to 05/11/2022			
CP2: 06/11/2022 to 05/11/2027 (Renewable of Crediting Period is undergoing)			
Documentation provided as evidence by Project Participant			
Transition Annex.			
Revised PDD.			
Auditor's assessment comment		Date:	01/11/2022
As per the PP clarification from PP, it is confirmed that RCP of project activity under CDM mechanism is still undergoing and cannot be confirm. Therefore, a FAR has been raise for VVB of upcoming verifications to confirm that renewable of crediting period done under CDM mechanism. Thus, this CAR is closed			

Table 2. FAR raised during preliminary review:

Following FARs were raised by Sustain-cert during design review and same closed successfully.

Type:	☐ CAR	☐ CL/CR	☒ FAR	Number:	01
Raised by:	Sustain Cert			Ref. to checklist in GS4GG PDD:	-
Description of the audit finding				Date:	04/10/2022
FAR #01: - The VVB shall verify the physical implementation of Solar PV project, monitoring system and implement monitoring plan.					
Project Participant's response				Date:	12/10/2022
VVB to respond.					
Documentation provided as evidence by Project Participant					

- Documents. - Site Audit.		
Auditor's assessment comment	Date:	01/11/2022
Assessment team found that, Implementation of project activity is found as per registered SG4GG PDD, and same is verified during onsite visit by the assessment team, FAR is successfully closed.		

Type:	☐ CAR	☐ CL/CR	☒ FAR	Number:	02
Raised by:	Sustain Cert			Ref. to checklist in GS4GG PDD:	-
Description of the audit finding				Date:	04/10/2022
FAR #02: - VVB shall conduct in person stakeholder interview to confirm the grievances and SDG benefits form the project activity.					
Project Participant's response				Date:	12/10/2022
VVB to respond.					
Documentation provided as evidence by Project Participant					
Grievances register					
Auditor's assessment comment				Date:	01/11/2022
Onsite visit and interview with local stakeholder and employee engage in project activity, assessment team verified that employee as well as local people getting benefited by project activity.					
Grievances register is also maintained by PP at project site, copies of grievances register is submitted to assessment team. FAR is closed.					

Table 3. FAR raised during current validation:

Type:	☐ CAR	☐ CL/CR	☒ FAR	Number:	01
Raised by:	Atul Takarkhede			Ref. to checklist in GS4GG PDD:	-
Description of the audit finding				Date:	02/11/2022
As during the GS RCP of the project activity, Validation team found that crediting period is not inline with the GS mirroring guidelines and under CDM mechanism RCP is still pending. Therefore, FAR has been raised for the upcoming VVB team to ensure that RCP has been done in CDM mechanism too.					
Project Participant's response				Date:	
Documentation provided as evidence by Project Participant					
Auditor's assessment comment				Date:	

Appendix 2: Audit Team CVs

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