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

Project Title:	30 MW Solar PV Project by Nirosha Solar Power Private Limited
Monitoring Period:	20/09/2021 – 30/06/2024 (Inclusive of both days)
GS project ID:	GS 5699
Internal ID:	TQC 1425
Customer:	EKI Energy Services Limited
Date:	03~~1~~/12~~0~~/2025
Revision:	04~~2~~

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SUMMARY			
Reference No.	**Date** *(first version)*	**Version No.**	**Date** *(last version)*
A+SH_SYST_TQC_GS_VER_1425	25/04/2025	0~~4~~3	0~~3~~1/1~~2~~0/2025
GS4GG Verification			
GS4GG Certified Product *(sought)*:	GHG Emission Reductions		
GS4GG SDG Impact Statement *(sought)*:	Impact Certification		
General Information			
Client	EKI Energy Services Limited		
Project Title	30 MW Solar PV Project by Nirosha Solar Power Private Limited		
Project Participants	Nirosha Solar Power Private Limited.		
Project Location	Village Bendo, District Mahoba, Uttar Pradesh, India		
Contact Person	Mr. Ashutosh Singh		
Monitoring Period	20/09/2021 – 30/06/2024 (Inclusive of both days)		
GS4GG Version: GS4GG Principles and Requirements 2.1 GS4GG Activity Requirements: RE Activity Requirements 1.4 GS4GG: GHG Emissions Reduction & Sequestration Product Requirements, Version 3.0 Applied Methodology Version: ACM0002: Grid-connected electricity generation from renewable sources -Version 20.0 The following tools and guidance's have been followed (References): • Tool to calculate the emission factor for an electricity system[1] - Version 07.0		GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 1 Technical Area: 1.2	
Published Monitoring Report, Version 01 Date: 05/02/2025		Final Monitoring Report, Version 0~~7~~6 Date: 2~~3~~2/1~~0~~1/2025	
GS4GG Project Design Document[2] Version: 04 Date: 14/09/2021			
Estimated SDG Goals for current MP: SDG 7 (Affordable and clean energy): 140,948 MWh for current monitoring period (ex-ante: 47,371 MWh/year) SDG 8 (Decent work and economic growth): 04 trainings and 10 nos. of employees (Ex-ante estimates: 01 training/year, employment to 10 persons) SDG 13 (Climate action): 131,730 tCO_2e for current monitoring period (ex-ante: 44,273 tCO_2e/year)			
Actual SDG Goals achieved during current monitoring period: SDG 7 (Affordable and clean energy): 142,701.68 MWh SDG 8 (Decent work and economic growth): Trainings Provided – 69 nos. No. of Jobs generated - 20 nos.			

[1] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf
[2] https://assurance-platform.goldstandard.org/project-documents/GS5699

SDG 13 (Climate action): 133,367 tCO_2e.
Selected Sustainable Development Goals (SDGs): 7, 8 and 13
Verification Summary
LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by EKI Energy Services Limited (PP representative) & Nirosha Solar Power Private Limited (PP) to perform the verification of "30 MW Solar PV Project by Nirosha Solar Power Private Limited" (Ref. No. GS 5699[3]) under GS4GG for the monitoring period from 20/09/2021 – 30/06/2024 (inclusive of both dates) applying the methodology ACM0002, version 20.0. The management of Nirosha Solar Power Private Limited is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions. A desk review and a site visit have been conducted to verify the data submitted in the monitoring report. Applus+ Certification confirms the following have been reviewed: a. The GS4GG PDD version 04/1/; b. Monitoring report/2/; c. The applied monitoring methodology/4/; d. Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board/4/; e. The Gold Standard for Global Goals "Principles and Requirements" Version 2.1/7/ and GS4GG guideline and related Annex. f. All information and references relevant to the project activity's resulting in emission reductions. Nirosha Solar Power Private Limited has implemented a Greenfield "30 MW Solar PV Project by Nirosha Solar Power Private Limited" a large-scale grid-connected solar power project in Village Bendo, District Mahoba, Uttar Pradesh, India. The total installed capacity of the project activity is 30 MW. Electricity generated from the project activity is exported to the unified Indian grid. The project activity has generated 142,701.68 MWh of electricity and abated 133,367 tCO_2e during the current monitoring period from 20/09/2021 – 30/06/2024 (Both days included) /2/. Applus+ Certification confirms that the project is implemented in accordance with the validated GS4GG PDD. The monitoring plan complies with the applied methodology ACM0002, version 20.0/4/ and the Gold Standard for Global Goals "Principles and Requirements" V2.1, GS4GG guideline/7/. The monitoring has been carried out in accordance with the monitoring plan. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the project's GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information reviewed and evaluated Applus+ Certification confirms that the implementation of the project has resulted in 133,367 tCO_2e emission reductions during the current monitoring period: 20/09/2021 – 30/06/2024 (Both days included). All CARs /CRs/ FARs raised during verification resolved prior to submitting a request for issuance. Please refer Appendix 1 of this report. Total numbers of findings: CLs: 03, CARs: 06, FARs: Nil

ASSESSMENT TEAM		
Team Members	**Type of Resource[4]**	**Organization** *(for OEs)*
Lead Auditor (LA)/Technical Expert (TE): Mr. Amit Rai	☐IR ☐EI ☒OE	M/s True Quality Certifications Private Limited

[3] GSF Registry
[4] IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

ASSESSMENT TEAM		
Team Members	**Type of Resource[4]**	**Organization** *(for OEs)*
Auditor (A): Mr. Deepak Pundlik[5]	☐IR ☐EI ☒OE	M/s True Quality Certifications Private Limited
Technical Expert in Training/Auditor in Training (TEiT/AiT): Mr. Kumar Shubham	☐IR ☐EI ☒OE	M/s True Quality Certifications Private Limited
Technical Reviewer (TR)/Technical Expert (TE): Mr. Denny Xue	☐IR ☒EI ☐OE	LGAI Technological Center, S.A. (Applus+ Certification)
Technical Reviewer in Training (TRiT): Mr. Saurabh Sanjay Gaikwad	☒IR ☐EI ☐OE	LGAI Technological Center, S.A. (Applus+ Certification)

*__Note:__ The Validation for the Renewal of Crediting Period (RCP) and 3rd verification for this project were previously conducted by different assessment teams, in accordance with the team rotation requirements specified under paragraph 6.8.1.b of the Gold Standard for the Global Goals (GS4GG) Validation and Verification Standard, Version 2.0.

- Previous Validation for RCP (GS VER Validation – Renewal of GS Crediting Period):
  - Lead Auditor/ Technical Expert: Mr. Pankaj Kumar
  - Auditor: Mr. Jitendra Mohan Singh
  - Technical Reviewer: Mr. Simon Shen
- Third Periodic Verification:
  - Lead Auditor: Dr. Atul Takarkhede
  - Technical Expert: Dr. Atul Takarkhede
  - Technical Reviewer: Mr. Simon Shen

As evident from the above, the assessment team composition for the current verification activity differs from that of the previous validation exercises, ensuring compliance with the team rotation requirement outlined in the GS4GG Validation and Verification Standard.

[5] GS Approved Auditor

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ABBREVIATIONS	
ACM	Approved Consolidated Methodology
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
CP	Crediting Period
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
MR	Monitoring Report
NGO	Non-Governmental Organization
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
OM	Operational Margin
PDD	Project Design Document
PP	Project Participant
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

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Appendix:

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

Appendix 2: Calibration details of monitoring meters.

Appendix 3: Audit Team CVs

Appendix 4: Breakdown Details

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1. INTRODUCTION

1.1 Objective

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by Nirosha Solar Power Private Limited. (PP) and EKI Energy Services Limited (PP representative) to perform 4th verification of "30 MW Solar PV Project by Nirosha Solar Power Private Limited" applying the methodology ACM0002, version 20.0/4/ and GS4GG guidelines. Gold Standard projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Gold Standard VERs. The objective of the verification work is to assess the compliance with the requirements of paragraph 62 of the CDM Modalities and Procedures as well as the GS4GG guidelines and relevant Principles and Requirements. According to this assessment Applus+ Certification shall:

- Ensure that the project activity has been implemented and operated as per the registered GS PDD/1/ and transitional documents for registration and that all physical features (technology, project equipment, monitoring and metering equipment) of the project are in place;
- Ensure that the published MR/2/ and other supporting documents provided are complete, verifiable and in accordance with applicable CDM VVS for project activities version 03.0/4/ for the project activity and Gold Standard i. e. GS4GG requirements/7/;
- Ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology;
- Evaluate the data recorded and stored as per the ACM0002, version 20.0/4/.

1.2 Scope

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the VVB. The verification is based on the submitted monitoring report, GS PDD/1/, the applied monitoring methodologies/4/, relevant decisions, clarifications and guidance from the CMP and the EB, GS4GG guidelines/7/ and any other information and references relevant to the project activity's resulting emission reductions. These documents are reviewed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures, GS4GG guideline and relevant Principles and Requirements, as well as their related rules and guidance.

Based on the requirements in the CDM VVS for project activities, version 03.0 for the project activity as well as the GS4GG guideline, Applus+ Certification has applied a risk-based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification considers both quantitative and qualitative information on emission reductions. The verification also considers the monitoring of sustainable parameters.

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

1.3 Description of the project activity

The project activity is installation of 30 MW solar power plant in Village Bendo, District Mahoba, Uttar Pradesh, India. The electricity generated by the project activity is exported to Indian Grid.

The project activity primarily aims at reducing Green House Gas (GHG) emissions through utilization of solar for generation of electricity. This is 4th monitoring period. During the current monitoring period: 20/09/2021 – 30/06/2024 (Both days included), the project activity has generated 142,701.68 MWh of electricity and abated 133,367 tCO_2e /2/.

The commissioning details of the project is provided as below which was confirmed based on commissioning certificates/3/;

Project Promoters' Name	Capacity in MW	Commissioning Date	Connection with Grid	State	Usage of Electricity
Nirosha Solar Power Private Limited	30 MW (AC)	20/09/2016	Indian Grid	Uttar Pradesh	Sale to Grid

The solar power project commissioning date and the technical specifications of the project are verified during the site visit are provided in Section 3.2 of this report.

2. METHODOLOGY

LGAI Technological Center, S.A. (Applus+ Certification) – Hereinafter referred as Applus+ Certification -approach to the verification is a two-stage process

In the 1st stage, Applus+ Certification completed a strategic review and risk assessment of the project's activities and processes in order to gain a full understanding of:

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

In the 2nd stage, Applus+ Certification verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved site visit and a desk review of the Monitoring Report. This Verification Report describes the findings of this assessment.

2.1 Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed an assessment team in compliance with the Contract Review and Assessment Team appointment rules in the internal Quality Management System of Applus+ Certification.

The composition of the Assessment team (Applus+ Certification team) has been approved by Applus+ Certification during the Contract Review process ensuring that the required skills are covered.

The qualification levels of Assessment Team members that are assigned by aforementioned appointment rules are as presented below:

- Lead Auditor (LA)
- Auditor (A)
- Technical Expert (TE)
- Technical Reviewer (TR)
- Any of the above-mentioned roles in training (iT, e.g. AiT for auditor in training).

The sectoral scope/technical area required knowledge linked to the applied methodology(ies) is covered by the Assessment Team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Amit Rai	LA/TE	YES	YES	NA	YES
Mr. Deepak Pundlik	A	YES	YES	NA	YES
Mr. Kumar Shubham	AiT/TEiT	YES	YES	NA	YES
Mr. Denny Xue	TR	YES	YES	NA	NA
Mr. Saurabh Sanjay Gaikwad	TRiT	YES	YES	NA	NA

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

2.2 Document review

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

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

2.3 On site assessment and follow up interviews

Duration of on-site inspection: 07/02/2025				
Sr. No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	1) an assessment of the implementation and operation of the GS4GG project activity as per the PDD 2) a review of information flows for generating, aggregating and reporting of the monitoring parameters 3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan 4) a cross-check between information provided in the MR and data from other sources 5) a check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology 6) a review of calculations and assumptions made in determining the GHG data and ERs, and 7) an identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters	Village Bendo, District Mahoba, Uttar Pradesh, India	07/02/2025	Mr. Amit rai (LA/TE) Mr. Shubham Kumar (AiT/TEiT)

During the physical site visit, following stakeholders were interviewed:

Sr. No.	**Interviewee**			**Date**	**Subject**	**Team member**
	Last name	**First name**	Affiliation			
1.	Tripathi	Mr. Vishunesh	Deputy Manager (PP representative)	07/02/2025	Project implementation status, Baseline emissions, ER calculations, SDGs	Mr. Amit rai (LA/TE), Mr. Kumar Shubham (AiT/TEiT)

2.	Chauhan	Mr. Shivam	Technician (PP representative)		monitoring, employment, grievance etc. Project Monitoring and reporting, calibration, employment, trainings	
3.	Pathak	Mr. Shubham	Engineer (PP representative)			
4.	Mishra	Mr. Suneet	Sr. Technician (PP representative			
5.	Ram	Mr. Kushi	Engineer (PP representative)			
6.	Tiwari	Mr. Shrikant	Local Stakeholder (Security)	07/02/2025	Local area development ,Local issues, Grievances, SDGs	
7.	Prasad	Mr. Kamla	Local Stakeholder (Office body)			
9.	-	Mr. Deepak	Local Stakeholder			
10.	-	Mr. Shivam	Local Stakeholder			

As referred above, the objective of the site visit assessment was to verify the following issues:
Confirm the implementation and operation of the project in line with GS4GG PDD[/1/]:

- The project activity is implemented as per the registered GS4GG PDD[/1/] and there is no change in capacity or design of the project activity since commissioning. Same was confirmed during the on-site visit and further cross checked with commissioning certificates[/3/], PPA[/15/] and interviews with PP/Site in charge and JMRs as well as invoices[/17/] raised by PP towards state utility;
- Review the data flow for generating, aggregating and reporting the monitoring parameters;

- Electricity generation monitoring and billing procedures are followed at the project site in line with the state utility practice and are in line with the registered GS4GG PDD[/1/]. These were confirmed during the interviews with PP. The verification team also checked entire monthly JMRs issued by the state utility for the project activity with the values provided in the ER sheet for the calculations of the emission reductions;
- Confirm the correct implementation of procedures for operations and data collection:
  During on-site visit and interviews with PP, it was confirmed that implementation of procedures for operations and data collection is in line with registered GS4GG PDD[/1/]. Service provider is responsible for the operations, maintenance as well as maintaining other technical data of the project activity. Performance and operation data of solar project is controlled and maintained by O & M Services provider with online monitoring system through dedicated software and SCADA system which provide operation status, break down on continuous basis;

- Cross-check the information provided in the MR documentation with other sources:
  The information provided in the MR was crosschecked with the commissioning certificates, PPA, calibration certificates/8/ and Monthly Meter reading reports issued by DISCOM and invoices are used for cross-checking;
- Check the monitoring equipment against the requirements of the GS4GG PDD and the approved methodology, including calibrations, maintenance, etc.:
  Monitoring meters are checked with the Monthly Meter reading reports, interviews with PP and calibration is checked with the calibration certificates issued by State Utility authorized third parties;
- Review the calculations and assumptions used to obtain the GHG data and ER:
  Calculation procedures and monthly generation data is checked with Monthly Meter reading reports and crosschecked with invoices;
- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters:

During Physical site inspection and interviews with PP, it was confirmed that quality control and quality assurance procedures/11/ are in place. Metering arrangements & billing procedure is defined and controlled by state utility and PP do not have control on it. Assessment team checked all the monthly generation values which were crosschecked with the invoices and found that emission reductions are calculated/2/ conservatively. Moreover, During interviews with locals and employees for project developer, verbal consent for disclosing private information, such as names of interviewees, technology users, Stakeholders on the Gold Standard Impact Registry have been obtained in line with the requirement of 7.16.6.e of GS VVS, Version 2.0

Thus, to verify the implementation of project activity, onsite operation & maintenance, monitoring & management practices; assessment team has conducted interviews with onsite in-charge, O&M team and also had a detail discussion with the PP representative and reviewed third party statutory documents i.e. Commissioning certificates, Power Purchase Agreements, Complete set of Monthly Meter reading reports covering monitoring period, Invoices (for cross check of Net electricity supplied to the grid), training records/9/, Plant logbook/breakdown log/6/, complaint/feedback register/13/ and other relevant records.

2.4 Quality of evidences

Sufficient evidence covering the full verification period in the required frequency is available to verify the figures stated in the final Monitoring Report, Version 04/2/. Specific cross-checks have been done in cases that further sources were available. The monitoring report's figures were checked by the assessment team against the raw data. The data collection system meets the requirements of the monitoring plan as per the methodology.

2.5 Reporting of findings

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

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

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

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

All CARs and CLs raised during verification shall be resolved prior to submitting a request for issuance.

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

Please refer Appendix 1 of this report. Total Numbers of findings: CLs: 03, CARs: 06, FARs: 00

2.6 Internal Quality Control

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

3. VERIFICATION FINDINGS

3.1 FARs from Validation / Previous Verification

This is the 4th verification for the project activity and two FARs envisaged from last performance review and Design Renewal Review document of this project activity. Refer Appendix 1 of this report for details.

FAR raised from Design Renewal Review (Crediting Period Renewal Duration: 20/09/2021 to 19/09/2026):

FAR#1: The VVB shall interview the stakeholders and confirm on SDG benefits and confirm on grievances (if any).

Assessment:

As part of the current verification, the VVB conducted stakeholder interviews during the site visit. The VVB verified the Sustainable Development Goal (SDG) benefits as reported in the Monitoring Report and confirmed that no new grievances had been raised during the monitoring

period. The stakeholder feedback confirmed the implementation and continuation of SDG-related activities. The VVB also reviewed the grievance redressal mechanism and found it to be effective and in line with the requirements. FAR#1 closed.

FAR raised from Previous Performance Review (Monitoring Period Duration: 01/07/2020 to 19/09/2021):

FAR#1: The provided grievance template doesn't look credible (there is no date, sign, or seal). PD shall implement an effective grievance mechanism including monitoring of grievances. VVB shall check the grievance mechanism implemented by the PD during the next verification.

Assessment:

The Project Developer has implemented a revised grievance mechanism effective from 10/03/2022, replacing the previous template and establishing it as a new grievance register rather than a continuation of the earlier one. The new register includes essential elements such as date, signature, and company seal to enhance traceability and credibility. The grievance process is managed by the Site In-charge under the supervision of the O&M Head, ensuring accountability and systematic monitoring of grievance records.

During the current verification, the VVB conducted an on-site inspection and interviewed relevant stakeholders, reviewed the revised grievance mechanism, and verified the records maintained by the Project Developer. The implemented system was found to be credible, effective, and compliant with the FAR requirements. FAR#1 closed.

3.2 Project Implementation in accordance with the registered Project Design Document

The project activity has been implemented as described in the registered GS4GG PDD/1/. The installed capacity of the project is 30 MW. The same has been verified during the on-site inspection and through commissioning certificates/3/. The verification team confirms that all physical features of the project activity including data collecting system has been implemented in accordance with the validated GS4GG PDD/1/. The project activity has supplied electricity to Indian grid.

The project activity has been observed in normal operation during the monitoring period and the same has been confirmed during the on-site inspection and interviews with representatives of PP. No unusual activates observed during the monitoring period. However, plant was undergone scheduled maintenance as per the recommendation of the manufactures. Only minor maintenance-related downtimes were observed which are included under appendix 4 of this report. Also, assessment team found that no any major breakdown observed and same is confirmed by reviewing submitted plant breakdown log details/6/.

Plant is located in the Mahoba District, of state Uttar Pradesh, India. The location details are provided below. Verification team has checked the locations of the project activity during the physical site visit using google map and found consistent with the registered GS4GG PDD/1/. Further, VVB verified the coordinates during the on-site visit and cross checked with Google earth software independently and observed coordinates are correctly provided/5/.

Location details of the Project are mentioned below:

Project Promoters' Name	Latitude	Longitude
Nirosha Solar Power Private Limited	25.42 N	79.44 E

The technology employed by the Project Activity includes the generation of renewable electrical energy by harnessing solar radiations. Thus, this project actually displaces the electricity in the grid which is essentially fossil-fuel based to supply the generated electricity to the Indian Grid. The generation and consumption electricity from the Project Activity is monitored continuously through the energy meters at project site & substations. The data is used for the calculation of exports to the grid and imports from the grid.

Technical specifications of the project activity provided in the section B.1 of the MR is found consistent with the registered GS PDD. Same are confirmed during the on-site inspection, Manufacturer's specification and though commissioning certificates/3/ and found consistent with registered PDD/1/. Specifications of PA is as follows:

Technical detail of the equipment	Remark
Technology	Polycrystalline modules on Seasonal Tilt at 25 degree and 5 degrees.
Solar photovoltaic module	Module Capacity: 260 Wp & 265 Wp Module make: Suntech
No. of modules	132,384
Total Number of Inverters	38 Units
Details of Inverters	680 KW, Schneider Electric
Power transformer	1 No. of 25/31.5 MVA, 11/132 KV Make: Schneider Electric
Inverter Transformer	1. 1 No. of 4 MVA Transformer; 380/11000 V, Make: Sudhir 2. 8 Nos. of 2.8 MVA Transformers; 380/11000 V, Make: Sudhir
Auxiliary Transformer	1 No. of 100 KVA Transformer; 415/11000 V
Technical & Operational Lifetime	25 years

The project activity was commissioned on 20/09/2016 and is running satisfactorily for current monitoring period verified by the verification team during the site visit and commissioning certificate/3/ & Breakdown records/6/.
The operation of the project activity complies with all statutory requirements as the PD is submitting the monthly invoice to state utility (Uttar Pradesh Power Corporation Ltd. (UPPCL). The monitoring data is recorded on continuous basis and available on hourly/daily basis on SCADA software. The company has out sourced ACME Cleantech Solutions Private Limited and the same is responsible for overall operation & maintenance including monitoring/data recordings. There is no event or situation including emergency situations occurred during this monitoring period which has impacted the applicability of methodology.
Based on interview with PP representative during the on-site inspection and reviewed of commissioning certificates/3/, the verification team was able to confirm that the project implementation is in accordance with the project description contained in the registered GS4GG PDD/1/.

The timeline[6] of the project 's implementation is as follows:

Milestone of the project activity	**Timeline**	**Assessment by the verification team**
Registration of the project activity under GS4GG Principles and Requirements.	Registered	The project webpage was checked to confirm the same https://assurance-platform.goldstandard.org/project-documents/GS5699
Crediting period		
1st monitoring period	20/09/2016 to 31/03/2018 (both dates included)	This was 1st monitoring period under 1st crediting period (i.e. 20/09/2016 to 19/09/2021).
2nd monitoring period	01/04/2018 to 30/06/2020 (both dates included)	This is 2nd monitoring period under 1st crediting period (i.e. 20/09/2016 to 19/09/2021).
3rd monitoring period	01/07/2020 to 19/09/2021 (both dates included)	This was 3rd monitoring period under 1st crediting period. (i.e. 20/09/2016 to 19/09/2021).
4th monitoring period	20/09/2021 – 30/06/2024 (both dates included)	This is 4th (Current) monitoring period under 2nd crediting period (i.e. 20/09/2021 to 19/09/2026).

Assessment of actual emission reductions with the estimate emission reductions in PDD/1/:

Estimated GS VERs (Emission Reductions) as per registered GS4GG PDD, version 05	As per registered GS4GG PDD (version 04), the ex-ante estimated GS VERs (emission reductions) for 365 days is 44,273 tCO_2e and for this monitoring period, total days are 1,015. Accordingly, the estimated GS VERs is 131,730 tCO_2e. Please refer summary tab of ER calculation Spread sheet/2/. Hence, the estimated ex ante amount of GS VERs (emission reductions) for current monitoring period is 131,730 tCO_2e.
Actual GS VERs (Emission Reductions) for the monitoring period	133,367 tCO_2e
Is any increase of GS VERs occurred?	The ex-ante value of GS VERs (emission reductions) during the current monitoring period are estimated to be 131,730 tCO_2e, whereas actual GS VERs (emission reductions) achieved are 133,367 tCO_2e (Rounded Down), which is 1.24% higher than the estimated GS VERs (emission reductions)/2/. Thus, there is increase in GS VERs.
Reason for increase of GS VERs	The verification team notes that the ex-post emission reductions achieved during the current monitoring period are approximately 1.24% higher than the estimated GS VERs, primarily due to increased solar irradiance (shine hours), a natural factor beyond the control of the Project Participant (PP). The VVB has assessed this increase in

[6] https://assurance-platform.goldstandard.org/project-documents/GS5699

	accordance with the *GS Rule Clarification: Assessment Approach for Reporting Higher Ex-Post Emission Reductions, v1.1*, and confirms that the project remains compliant with its requirements. Specifically, while the emission reductions have consistently exceeded estimates across all monitored period, the additionality of the project remains unaffected. The Plant Load Factor (PLF) observed during the current monitoring period is 19.53%, which remains below the breaching threshold of 20.78% as per the sensitivity analysis outlined in the registered PDD. Vintage-wise PLF variations, as detailed in Section E.6 of the Monitoring Report, also remain within acceptable limits, confirming that no undue performance enhancements or changes to project conditions have occurred. The VVB agrees with the PP's justification provided in Section E.6, and finds the observed performance to be consistent with expectations under natural variability, without impacting the validity of the project's baseline scenario or additionality.

Further, during interview with onsite personnel and local stakeholders, VVB team observed there is no hazardous oil or substance released or used by project activity. Moreover, as the project activity refers to solar power plant. There are no pollutions causing technology installed at the project site.

As updated annual reporting shall be required in-line with requirement from para 5.1.39 to 5.1.44 of GS4GG Principle and requirements v.2.1 for Projects that have achieved the Project Design Certification stage or have successfully transitioned to Gold Standard for the Global Goals. The Annual Report for the monitoring period from 20/09/2021 to 30/06/2024 was submitted on 30/12/2024 and uploaded on the SC platform on 31/12/2024. The Project Developer (PD) has provided the screenshot of the uploaded report along with the Annual Report for cross check. However, as the report is still not visible on the GS project webpage despite the submission, the PD has requested Gold Standard (GS) to review the matter and ensure that the Annual Report is made available on the GS project webpage. Moreover, Annual Report has been submitted along with the submission documents covering for monitoring period 20/09/2021 to 30/06/2024 which is checked and verified by the VVB team and found acceptable.

Verification team checked the CDM registry and confirms that project is not registered under CDM. Verification team also checked that the projects are not registered under the REC mechanism of India and the same can be cross-checked at https://www.recregistryindia.nic.in/index.php/publics/registered_regens . Also, International REC (I-REC) registry (https://evident.services/device-register) is cross-checked and found that this project is not under I-REC as well. Thus, double counting for the current monitoring period is ruled out.

Moreover, PP has submitted declaration for no double counting dated 10/03/2025. PP also confirms that PA is not registered under VCS (VERRA). Verification team checked the VERRA registry web site https://registry.verra.org/app/search/VCS and confirms that PA is not registered under VERRA.

Grievance Mechanism:

During the interviews with the PD, the verification team confirmed that there is a grievance register/13/ with contact details maintained at the project site office and accessible to local stakeholders. The verification team checked the grievance register during the physical site visit and found that there were no grievances registered by local stakeholders during the current monitoring period.

This assessment also addresses the FAR raised during the previous performance certification review regarding the credibility of the grievance mechanism. In response to that FAR, the Project Developer revised the grievance template to include essential elements such as date, signature, and seal, and implemented a more structured approach for grievance monitoring. The improved grievance mechanism was formally implemented on 10/03/2022, approximately one month after the previous site visit conducted. The revised template represents a new grievance register, replacing the earlier version used in the prior monitoring period. The grievance register is maintained and managed by the Site In-charge under the supervision of the O&M Head, ensuring proper documentation and timely resolution of any stakeholder concerns.

The verification team reviewed the revised mechanism and found it to be effectively implemented. Furthermore, no legal disputes, stakeholder complaints, or contests related to the project activity were identified during the current monitoring period. Accordingly, the VVB considers the previously raised issue to be adequately addressed and resolved.

Safeguarding Practices:

The VVB reviewed the project's safeguarding practices and confirmed alignment with the safeguarding reporting requirements outlined in the GS4GG Safeguarding Principles & Requirements (v2.1). During the on-site inspection and document review, the VVB verified that plant operations, maintenance activities, and worker safety practices are effectively implemented. No grievances or safeguarding-related issues were reported during the monitoring period, and a proper grievance mechanism remains in place for future concerns. The VVB concludes that the safeguarding requirements have been appropriately addressed and are consistent with the project's operational conditions.

VVB also reviewed the project's Human Resource (HR) policy/12/, which explicitly prohibits child labour and gender discrimination, and promotes equal employment opportunities for all personnel irrespective of gender. Relevant HR policy documents and supporting records were examined to confirm that these measures are formally adopted and effectively implemented at the site.

Materiality adopted in Verification:

Consideration of materiality in planning the verification

No.	Risk that would lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk levels	**Justification**	

1	Human errors: Readings from Meters (if not automatic)	LOW	Human error is likely to occur if the monitoring personnel are not trained well or inexperienced in data recording procedures and monitoring process	All the personal are well trained to monitor and collect data and thus risk associated with Human error is minimized. Assessment team checked the training records to confirm that all the personal are well trained to handle the activities related to monitoring. Assessment team checked the training records for the complete monitoring period and confirm that the personal are well trained to monitor and collect data for the project activity.
2	Human error: Quantification of emission reduction	LOW	Use of spread sheets without adequate data control, changes/updates, version tracking, traceability and security	All the energy statement i.e. JMR sheets and the invoices for the complete monitoring period are checked and thus the assessment team confirms that the ER value is conservative and correct.

Consideration of materiality in conducting the verification

In line with Guidelines for Materiality Threshold para (9.6.3) of Validation-and-Verification-Standard version 2.0[/4/] in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. It invoices follows the paper trail back to the raw data such as meter reading records and invoices.

Emission Reductions (tCO_2e)/year	**500,000 or more**	**300,000 to 500,000**	**300,000 or less**	**Micro Scale projects**
Materiality Threshold para (9.6.3) of Validation-and-Verification-Standard version 2.0	0.5%	1.0%	2.0%	10.0%

The applicable materiality threshold is 2.0% for project activity as achieved ERs which were less than 300,000 tCO_2e/year as per requirement of V2.0_PAR_Validation-and-Verification-Standard[/7/].

Particulars / Monitoring Report	MR Version (Initial)	MR Version (Revised/Final)
Emission Reductions Achieved (tCO_2e) in this monitoring period	133,367 tCO_2e	133,367 tCO_2e
Applicable Threshold (%) as per para 9.6.3 of Validation-and-Verification-Standard version 2.0 /5/	2.0%	2.0%

The verification team has identified the impact of errors observed and those were corrected by PP during verification for all monitoring parameters at the individual level. There are no material errors, overestimation of ER, omission, or misstatement.

In summary, verification team confirms that actual emission reductions are higher than the estimates as per GS4GG PDD/1/ for the current monitoring period.

Verification team considers the project and monitoring description of the project contained in the Monitoring report to be complete and accurate. The Monitoring report complies with the relevant methodology, tools, forms and guidance which are in line with that available in the registered documents (including GS4GG PDD) with Gold Standard.

Opinion:

a) In opinion of the verification team, the implementation and operation of the project activity is in compliance with the description in the GS4GG PDD version 04.

b) There is no revision in monitoring plan or post registration change for the current monitoring period.

c) The actual emission reductions for the current monitoring period are 133,367 tCO_2e which are slightly greater than the estimated ERs (131,730 tCO_2e) for the comparable period due to more number of sun-shine hours.

3.3 Compliance of the Monitoring Plan with the Monitoring Methodology

The verification team is able to confirm that the monitoring plan and the monitoring system implemented are in compliance to the applied monitoring methodology ACM0002, version 20.0. All other requirements of the applied methodology are met.

During the verification all relevant monitoring parameters (as listed in the GS4GG PDD/1/) have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures.

Opinion:
The monitoring plan mentioned in the GS PDD/1/ is in line with the applied methodology i.e. ACM0002, Version 20.0. The monitoring mechanism is in line with the methodology and is effective and reliable.

3.4 Completeness of Monitoring

The monitoring has been carried out in accordance with the monitoring plan contained in the PDD/1/. During the course of verification, all relevant monitoring parameters have been verified with regard to the appropriateness of the applied measurement / determination method and applied QA/QC procedures. It is confirmed that the monitoring parameters have been measured / determined without material misstatements.

The verification team reviewed the actual monitoring during the site visit and from document review and compared it against the requirements of the monitoring plan in the GS4GG PDD/1/ and found in line.

The verification team assessed the monitoring techniques and each monitoring value in the monitoring report; and provided a short summary on the verification of every parameter listed in the monitoring plan and used for calculation of emission reductions.

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

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

The ex-ante values for $EF_{grid,,OM,y}$, $EF_{grid,BM,y}$, & $EF_{grid,CM,y}$ were considered for calculation of emission reductions are consistent with the registered GS4GG PDD/1/.

The value of combined margin in India is estimated using CO_2 Baseline Database for Indian Power Sector" version[7] 16.0, March 2021 published by the CEA/23/ (Central Electricity Authority, Govt of India) and thus verification team concludes that the value is correct and appropriate. The default values in turn are used for baseline calculation as per the formula given in the registered GS4GG PDD/1/ for the current monitoring period. Verification team checked the values, source of data, choice of data, purpose of the data mentioned in the MR from the registered GS4GG PDD/1/ and confirms that the similar approach was considered for the current monitoring period also.

The relevant Emission factor values used for emission reduction calculation are given below. Also, as GS4GG "Principles and Requirements" /7/, ex-ante fixed parameters are now connected to relevant SDG indicator which is acceptable to the assessment team.

$EF_{grid,OM,y}$- Relevant SDG Indicator= SDG13: Climate Action= 0.9568 tCO_2e/MWh /1/
$EF_{grid,BM,y}$- Relevant SDG Indicator= SDG13: Climate Action= 0.8682 tCO_2e/MWh /1/
$EF_{grid,CM,y}$- Relevant SDG Indicator= SDG13: Climate Action= 0.9346 tCO2e/MWh /1/
The applied ex-ante data/parameters are in line with the applied Tool 07: Tool to calculate the emission factor for an electricity system, version 7.0, and registered PDD/1/ thus acceptable to VVB.

b. Data and parameters monitored

[7] https://cea.nic.in/wp-content/uploads/baseline/2021/06/User_Guide_ver_16_2021-1.pdf

Relevant SDG Indicator	7.2.1 Affordable and Clean Energy
Data/parameter:	$EG_{facility,y}$
Unit	MWh
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh
Measured/calculated/default	The parameter $EG_{facility,y}$ is calculated based on the difference between values of "export" and "import" on the energy meter at the sub-station (evacuation point). The Meter Reading Statement (JMR sheets) issued by State board which provide the values of export and import for the month. The same is thus used for emission reduction calculation. The project activity includes metering at the substations managed by UPPTCL & PP/O&M Contractor. The electricity exported & imported are measured by Energy meters (main meter) installed at each line in 132/33 KV Panwari substation is located at Panwari, District Mahoba, Uttar Pradesh. The reading is recorded and the difference from last month reading gives the number of units imported/exported. The installed meters are of 0.2s accuracy class. The export and import reading are continuous and recording frequency is monthly. The QA/QC procedure is as per the requirement of the registered PDD and onsite practice. Assessment team confirmed the same during the interviews with PP. Assessment team checked all the values of calculated Net electricity supplied to the grid from the Meter reading statement (provides the value of export and import) issued by State electricity board (Uttar Pradesh Power Transmission Corporation Ltd. (UPPTCL)). Moreover, the assessment team observed that the net electricity values reported in the JMR and invoices valued do not match in most instances. However, as per the applied methodology and the provisions of the registered PDD, the emission reductions have been conservatively calculated using the minimum of the two values (JMR and invoices). Considering the conservative approach adopted in the ER calculations, the emission reduction calculations are acceptable by the assessment team.
Source of data	Monthly JMR provided by State Utility[17]
Value(s) of monitored parameter	142,701.68 MWh
Monitoring equipment	Monitoring equipment: Electrical Energy Meters which are electronic tri-vector meters of accuracy class 0.2s (Main and check meter's) (Please refer to the Annex-2 for meter serial number). Data type: Measured & Calculated

Vintage wise Breakup	Net export (MWh)
20/09/21 to 31/12/21	13,686.13 MWh
01/01/22 to 31/12/22	52,883.19 MWh
01/01/23 to 31/12/23	50,780.49 MWh
01/01/24 to 30/06/24	25,351.87 MWh
Total	142,701.68 MWh

	Archiving: Paper & Electronic Recording Frequency: Daily All the meters were calibrated as per the requirement, however during current monitoring period there is a change in check meter/15/ was observed whose details along with calibration have been provided in **Appendix 2** of the report. The calibration dates are verified with the calibration certificates and found that calibration dates are consistent with the dates mentioned in calibration certificates/8/.
Measuring/reading/recording frequency:	Continuous measurement and at least monthly recording
Calculation method (if applicable):	The electricity exported/supplied by the project activity is measured through meters having accuracy class of 0.2s. The net export of electricity is calculated as difference of export and import of project activity. Based on the calculation, JMR reports/17/ are issue by the state utility. The values from joint meter reports/statement were further cross checked with the invoices/17/ and found consistent. The verification team has also assessed the apportioning procedure as described in Section C of the monitoring report. The approach is consistent with the applied methodology and CDM guidelines. The calculation method is clearly defined, and the use of the more conservative value between the two approaches ensures conservative estimation of emission reductions.
QA/QC procedures:	The meters will be calibrated once in every 5 years by an independent testing laboratory and faulty meters will be duly replaced immediately. The meters are of accuracy class 0.2s. The monthly electricity supplied/exported by the project activity in the JMR report is cross checked with the monthly invoices of sale
Cross Checks	The value was cross checked with invoices/17/ and found consistent.

Relevant SDG Indicator	SDG 8.5.1: Decent Work and Economic Growth
Data/Parameter	• Number of employment generation
Unit	• Number (employees)
Description	Number of people employed directly due to the project activity with Number of male/female, permanent/temporary, age and person with disabilities. Assessment team checked that for Quantity of employment and income generation. Employment is given in office work, O&M, and Security etc. A total of 20 employments has been provided during the current monitoring period, comprising 10 skilled (all male) and 10 unskilled (8 male and 2 female) workers. The employment records/10/ for the monitoring period were checked

	by the assessment team and found correct. The average hourly income for skilled workers is INR 77.36, and for unskilled workers is INR 50.00. The hourly wages were verified against the notification published by the Chief Labour Commissioner (Central) for B Category cities, where the prescribed average hourly rates are INR 61.75 for skilled and INR 44.62 for unskilled workers. Hence, the wages paid at the project site are above the minimum prescribed levels. Female participation at the site was limited to two unskilled workers. The low female representation is primarily due to the project's remote location, rather than any discriminatory practice. The project ensures equal pay for equal work in line with its HR policy.~~Assessment team checked that for Quantity of employment and income generation. Employment is given in office work, O&M, Security etc. A total of 10 employment and INR 77.36 hourly income given during monitoring period. The employment records for the monitoring period are checked by the assessment team and found correct. There are no female employee found at site. The absence of female employees is due to the project's remote location, which lacks adequate infrastructure and transport to support gender-inclusive employment. Our assessment confirmed that this is a logistical limitation rather than a result of discriminatory practices.~~ ~~The total of 10 No's of employment have been provided during the current monitoring period verified from the on-site inspection and employment records.~~[/10/] ~~The hourly wages can be checked from the notification from the order published by the Chief Labour Commissioner (Central)~~[8]~~. As per the notification from Chief Labour Commissioner, for semi-skilled workers working in B Category of cities, the daily wage is 357, and accordingly the average hourly earnings comes out to be INR 44.62.~~
Measured/calculated/default	Measured: • Employee Records • Salary Record of the employees
Source of data	• Salary of the project employees[/10/] • Plant Employee Records[/10/] VVB has checked salary slip/payment for O & M services during the physical site visit and also interview with employees and local stakeholders to confirm.

[8] ~~https://clc.gov.in/clc/min-wages~~

<table>
<tr><td>Value(s) of monitored parameter</td><td>Total 20 (10 Skilled Men + 10 Unskilled (08 Men + 02 Women) persons employed during this monitoring period,

VVB has verified the same with salary payment to employees and cross check with attendance sheet. Vintage wise provided are as

<table><tr><th>Monitoring Period</th><th>Employment (No's)</th></tr><tr><td>20/09/21 to 31/12/21</td><td>20</td></tr><tr><td>01/01/22 to 31/12/22</td><td>20</td></tr><tr><td>01/01/23 to 31/12/23</td><td>20</td></tr><tr><td>01/01/24 to 30/06/24</td><td>20</td></tr><tr><td>Average (over monitoring period)</td><td>20</td></tr></table>follows:</td></tr>
<tr><td>Monitoring equipment</td><td>Not applicable</td></tr>
<tr><td>Measuring/reading/recording frequency:</td><td>Monthly monitoring and annual compilation</td></tr>
<tr><td>Calculation method (if applicable):</td><td>The salary payment has been checked with salary slips and payments towards O & M services.</td></tr>
<tr><td>QA/QC procedures</td><td>The number of persons employed would be mentioned in the plant register, which can be crossed checked with attendance register. Average hourly earnings of the employees/workers can be checked and calculated from the salary slips</td></tr>
<tr><td>Cross checked</td><td>The data's have been cross checked with attendance registered and found consistent.</td></tr>
</table>

Relevant SDG Indicator	SDG 8.6.1
Data/Parameter	Quality of employment
Unit	Number (Trainings)
Description	Number of Trainings provided to employees & O&M staff
Measured/calculated/default	Training Records
Source of data	Training records[9] (HSE & HR) maintained at plant site. VVB has checked training records and attendance sheet during the physical site visit and also interview with employees to confirm the same.

<table>
<tr><td>Value(s) of monitored parameter</td><td>Total 69 training has been given to the employees during current monitoring period. VVB has verified the same with training records and attendance sheet[9]. The details of provided trainings are included in Section D.2 of the monitoring report. Vintage wise provided trainings are as follows:

<table><tr><th>Vintage wise Breakup</th><th>No of Trainings (No's)</th></tr><tr><td>20/09/21 to 31/12/21</td><td>02</td></tr><tr><td>01/01/22 to 31/12/22</td><td>20</td></tr><tr><td>01/01/23 to 31/12/23</td><td>39</td></tr><tr><td>01/01/24 to 30/06/24</td><td>8</td></tr><tr><td>Total</td><td>69</td></tr></table></td></tr>
<tr><td>Monitoring equipment</td><td>Not applicable</td></tr>
<tr><td>Measuring/reading/recording frequency:</td><td>Annually</td></tr>
<tr><td>Calculation method (if applicable):</td><td>No of trainings provided is checked with training records attendance sheet.</td></tr>
<tr><td>QA/QC procedures</td><td>The training records for all the employees</td></tr>
<tr><td>Cross checked</td><td>The number of trainings given to employed persons would be mentioned training records, which can be crossed checked with daily attendance register. The data's have been cross checked with training records and found consistent.</td></tr>
</table>

<table>
<tr><td>Relevant SDG Indicator</td><td>SDG 13: Climate Action</td></tr>
<tr><td>Data/Parameter</td><td>ERy</td></tr>
<tr><td>Unit</td><td>tCO_2e/</td></tr>
<tr><td>Description</td><td>Emission reductions achieved per year</td></tr>
<tr><td>Measured/calculated/default</td><td>Calculated</td></tr>
<tr><td>Source of data</td><td>During the current verification, the Emission Reduction (ER) sheet is being prepared using data from the Joint Meter Readings (JMR) and corresponding invoices</td></tr>
<tr><td>Value(s) of monitored parameter</td><td>133,367 tCO_2e

<table><tr><th>Vintage wise Breakup</th><th>SDG 13 (in tCO_2e)</th></tr><tr><td>20/09/21 to 31/12/21</td><td>12,791</td></tr><tr><td>01/01/22 to 31/12/22</td><td>49,424</td></tr><tr><td>01/01/23 to 31/12/23</td><td>47,459</td></tr><tr><td>01/01/24 to 30/06/24</td><td>23,693</td></tr><tr><td>Total</td><td>133,367 tCO_2e</td></tr></table></td></tr>
<tr><td>Monitoring equipment</td><td>Not Applicable</td></tr>
<tr><td>Measuring/reading/recording frequency:</td><td>As per monitoring period</td></tr>
<tr><td>Calculation method</td><td>This calculated using formula as per registered PDD (BEy= $EG_{PJ,y}$</td></tr>
</table>

(if applicable):	* $EF_{grid,CM,y}$) Where $EG_{PJ,y} = EG_{facility,y}$
QA/QC procedures	NA
Cross check	A check meter is also installed near to the export meter to cross check the electricity exported to the grid. The check meter reading would also be used in case of failure of export meter

The verification team confirms;

a) The monitoring plan implemented is in line with monitoring plan included in GS4GG PDD[/1/].
b) The monitoring complies with the requirement of the applied methodology.
c) The information inflow (from data generation, aggregation, to recording, calculation and reporting) is included above under each parameter and confirms to the requirement of the GS4GG PDD[/1/].
d) The values included in the monitoring report and corresponding emission reduction sheets are verified, cross checked and included under each monitoring parameter, wherever appropriate
e) The findings relevant to each parameter, wherever appropriate are discussed in detail in Appendix 1 of this report.

In summary, the verification team confirms that all the ex-post parameters are monitored in accordance with the approved monitoring plan and applied methodology.

c. Implementation of sampling plan

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

d. Compliance with the calibration frequency requirements for measuring instruments

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

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

3.5 SDG Outcomes Monitoring

For Contributions to Sustainable Development

The verification team checked the sustainable development indicator parameters during the site visit interviews.

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

As per the sustainability monitoring plan in the GS4GG PDD[/1/], verification team evaluated all sustainable development indicators as followed in the table:

Item	**Baseline estimate**	**Project estimate**	**Net benefit**
SDG 7: Affordable and Clean Energy	Net electricity export to grid = 0 MWh	Net electricity exported to grid = 142,701.68 MWh	Net electricity exported to grid =142,701.68 MWh
SDG 8: Decent Work and Economic Growth			
Trainings provided to O&M staff (Nos)	0	69	69
No. of Employment opportunities created (Nos)	0	20	20
SDG 13: Climate Action	133,367 tCO_2e	0	133,367 tCO_2e

Comparison of actual value of outcomes with estimates in approved GS PDD[/1/]

Item	**Values estimated in ex ante calculation of approved PDD for this monitoring period**	**Actual values achieved during this monitoring period**
SDG 7: Affordable and Clean Energy	140,948 MWh	142,701.68 MWh
SDG 8: Decent Work and Economic Growth	No. of trainings: 01 Training/Annum Employment: 10 No's	No. of trainings given: 69 Trainings Jobs created: 20 No's
SDG 13: Climate Action	131,730 tCO_2e tCO_2e	133,367 tCO_2e

SDG Impact Tool Assessment

Verification team has checked the SDG Impact tool/19/ and found that PP has correctly mentioned all the above SDGs and its calculation details. The same are found consistent in Monitoring Report

The adequacy and compliance of the monitoring plan in the Monitoring report was found as per the requirements laid by the GS4GG PDD/1/. The information flow (from data generation, aggregation, to recording, calculation and reporting) is already included under respective parameter above. The verification team has verified all the data and collected evidence as per the required monitoring frequency and found to be correct and appropriate meeting the requirements of the applied methodology and registered GS4GG PDD/1/.

As a part of continuous feedback from stakeholders, the grievances register is being placed at site and is being continuously monitored and addressed through the grievances cell on regular basis and maintained in a grievance register/13/ at site office. The grievance register provided to verification team was also checked, it was found that during the current monitoring period, no comments/feedbacks were received from the local stakeholders.

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

3.6 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions

As a result of verification of the ER calculation process, the assessment team confirmed that all the parameters required for the determination of the emission reductions have been included in the Monitoring report Version 04 and corresponding ER calculation spreadsheet and are consistent with the applied methodology ACM0002, Version 20.0/4/ and the monitoring plan contained in the registered GS4GG PDD/1/. The parameters are complete in this monitoring period.

After verifying the reported figures with the raw data sources, it is confirmed that the values of the parameters from the raw data sources are consistent with those quoted in the Monitoring Report Version 04 and corresponding ER calculation spreadsheets. The verification process for the same has been clearly described in above section of the report. See below for the detailed data:

The current monitoring period covered the period from 20/09/2021 to 30/06/2024. The baseline emission is calculated as:

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

Where,

BE_y is the baseline emissions in year y (tCO_2e)

$EG_{PJ,y}$ Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the GS project activity in year y (MWh/yr)

$EF_{grid,CM,y}$ Combined margin CO_2 emission factor for grid connected power generation in year y calculated using "Tool to calculate the emission factor for an electricity system/4/.

The project activity is the installation of photovoltaic solar modules and it is a green field project. Thus, the Paragraph 41 of approved Methodology ACM0002 Version 20.0 is applicable:

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

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

Baseline emission for the period from 20/09/2021 to 30/06/2024
BE_y = 142,701.68 MWh *0.9346 tCO_2e
BE_y =133,367 tCO_{2e} (Rounded Down)

Vintage wise breakup of baseline emissions"

Vintage wise breakup	Baseline emissions (tCO_2e)
20/09/21 to 31/12/21	12,791
01/01/22 to 31/12/22	49,424
01/01/23 to 31/12/23	47,459
01/01/24 to 30/06/24	23,693
Total	133,367

Thus, the total baseline emission for the current monitoring period (20/09/2021 to 30/06/2024) is 133,367 tCO_2e

Project emissions:

As per para 31 of methodology ACM0002, version 20.0:

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

PE_y = Project emissions in year y (t CO_2e/yr)

$PE_{FF,y}$ = Project emissions from fossil fuel consumption in year y (t CO_2e/yr)

$PE_{GP,y}$ = Project emissions from the operation of dry, flash steam or binary geothermal power plants in year y (t CO_2e/yr)
$PE_{HP,y}$ = Project emissions from water reservoirs of hydro power plants inyear y (t CO_2e/yr)"

As the project activity is the installation of a new grid-connected Solar power plant/ unit and does not involve any project emissions from fossil fuel, operation of dry, flash steam or binary geothermal power plants, and from water reservoirs of hydro power plants. Therefore $PE_{FF,y}$, $PE_{GP,y}$, $PE_{HP,y}$ are equal to zero.
thus,
PE_y = 0 tCO_2e.

Leakage emissions:

As per applied methodology, leakage emissions are not applicable.

Emission reductions for the complete monitoring period (20/09/2021 to 30/06/2024)**:**

$$\mathbf{ER_y = BE_y - PE_y}$$
$$= 133{,}367\ tCO_2e - 0\ tCO_2e$$
$$= 133{,}367\ tCO2e$$

Thus, the total emission reductions achieved during the current monitoring period is 133,367 tCO_2e. Verification team has checked the emission reductions calculation spread sheet[/2/] and found consistent.

3.7 Management and Operational System

The responsibilities of data measurement, collection, verifying, archiving etc. have been clearly defined in the approved GS4GG PDD/1/. The same practice is followed onsite and it is confirmed by the assessment team during the site visit. The data related to ER calculation as well as data monitoring, collection process etc. have been internally reviewed by the management of the Monitoring team regularly. The responsibility of each function is consistent with the monitoring plan in the registered GS4GG PDD/1/.

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

It's verified during the site visit, the monitoring procedure as well as the internal quality management and control procedures are stipulated in the GS4GG PDD/1/. The monitoring personnel have been interviewed by the assessment team and it's confirmed that the monitoring is implemented as per the procedure. Also, the training records (training register and attendance sheet)/8/ has been checked by the assessment team and it is confirmed that the monitoring personnel are sufficiently trained to perform the monitoring.

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

4. REFERENCE

LIST OF DOCUMENTS	
S. No.	**Document/Evidence/Reference/Web link, Version, Date**
1.	GS4GG PDD version 04 dated 14/09/2021
2.	GS Monitoring report version 01 dated 05/02/2025(Initial) GS Monitoring report version 07~~6~~ dated 22~~3~~/11~~0~~/2025 (Final) ER Sheet version 01 dated 05/02/2025 (Initial) ER Sheet version 04 dated 20/05/2025 (Final)
3.	Commissioning certificates of project activity
4.	Applied methodology: ACM0002 "Grid-connected electricity generation from renewable sources" (Version 20.0) Tool to calculate the emission factor for an electricity system Version 07.0 Tool for the demonstration and assessment of additionality -Version 07.0.0 CDM VVS for the project activities, version 03.0 Guidelines for application of materiality, version 02.0
5.	Actual geo-coordinates of project activity
6.	Log book records /Breakdown details
7.	GS4GG "Principles and Requirement" version 2.1 GS4GG Activity Requirements: RE Activity Requirements version 1.4 GHG Emissions Reduction & Sequestration Product Requirements, Version 3.0 GS4GG "VALIDATION/VERIFICATION BODY REQUIREMENTS" version 3.0 GS4GG "Validation and Verification Standard", Version 02.0
8.	Calibration certificates of all energy meters
9.	Training record/Attendance sheets
10.	Employment records, Salary slips
11.	EHS Policy / QA and QC policies
12.	HR records HR Policies
13.	Grievance Register
14.	Technical Specifications of Solar PV
15.	Power Purchase Agreement (30 MW) dated 06/04/2015 Operation and Maintenance agreement dated 29/09/2016 Meter Change Certificate dated 27/11/2023
16.	Annual Report dated 30/12/2024
17.	Copies of monthly Generation (JMRs) and invoices
18.	Transition Records/Annual Report
19.	SDG Impact Tool
20.	Declaration for no double counting of credit's dated 10/03/2025
21.	GS performance review for the MP: 01/07/2020 to 19/09/2021

22.	Verification report of previous monitoring period 01/07/2020 to 19/09/2021
23.	CO_2 Baseline Database for Indian Power Sector" version[9] 16.0, March 2021 published by the CEA (Central Electricity Authority, Govt of India)

[9] https://cea.nic.in/wp-content/uploads/baseline/2021/06/User_Guide_ver_16_2021-1.pdf

5. FINAL VERIFICATION STATEMENT

Applus+ Certification has been engaged by EKI Energy Services Limited and Nirosha Solar Power Private Limited to perform the verification of the "30 MW Solar PV Project by Nirosha Solar Power Private Limited".

The management of Nirosha Solar Power Private Limited is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's Monitoring Plan in the registered GS PDD version 04 and the applied methodology ACM0002, version 20.0.

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

- the project is operated as planned and described in the approved GS4GG project design documents;
- the monitoring plan is as per the applied methodologies;
- the monitoring in Monitoring Report is as per the PDD and the monitoring plan approved by GS4GG;
- the development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

In our opinion, the GHG emission reductions for "30 MW Solar PV Project by Nirosha Solar Power Private Limited" for the monitoring period 20/09/2021 – 30/06/2024 (Both days included) as reported in Monitoring Report, prepared on the basis of the project's Monitoring Plan are fairly stated.

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

Reporting period: 20/09/2021 – 30/06/2024 (Both days included)

Verified emissions in the above reporting period:

Leakage emissions	0 tCO_2e equivalents
Project emissions	0 tCO_2e equivalents
Baseline emissions	133,367 tCO_2e equivalents
Emission reductions	133,367 tCO_2e equivalents

Vintage wise breakup of GS VERs

Vintage wise Breakup	SDG 13 (in tCO2e)
20/09/21 to 31/12/21	12,791

01/01/22 to 31/12/22	49,424
01/01/23 to 31/12/23	47,459
01/01/24 to 30/06/24	23,693
Total	133,367 tCO2e

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Date: 03~~1~~/12~~0~~/2025

Lead Auditor: Mr. Amit Rai
Tech. Expert: Mr. Amit Rai
Tech. Reviewer: Mr. Denny Xue

Approver *(Applus+ Certification VVB Technical Manager)*
Ms. Karen Elizabeth Vega Nonalaya ~~Mr. Agustín Calle de Miguel~~

ASSESSMENT TEAM	
Lead Auditor: Mr. Amit Rai	**Technical Reviewer:** Mr. Denny Xue
Signature:	Signature:
Approver: Ms. Karen Elizabeth Vega Nonalaya ~~Mr. Agustín Calle de Miguel~~	
Signature:	

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

FAR raised during Design Renewal Review under Gold Standard for the Global Goals

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	01
Raised by:	SustainCERT	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	10/02/2025
The VVB shall interview the stakeholders and confirmed on SDG benefits and confirm on grievances (if any)			
Project Participant's response		*Date:*	11/03/2025
The VVB interviewed relevant stakeholders to verify the Sustainable Development Goal (SDG) benefits as reported in the Monitoring Report. Additionally, the VVB confirmed whether any grievances had been raised and assessed the effectiveness of the grievance resolution process implemented by the Project Developer.			
Documentation provided as evidence by Project Participant			
Monitoring Report			
Auditor's assessment comment		Date:	03/04/2025
The VVB conducted stakeholder interviews during the site visit. The VVB verified the Sustainable Development Goal (SDG) benefits as reported in the Monitoring Report and confirmed that no new grievances had been raised during the monitoring period. Thus, accepted and FAR closed.			

FAR raised during Performance Review under Gold Standard for the Global Goals

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	01
Raised by:	SustainCERT	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	10/02/2025
The provided grievance template doesn't look credible (there is no date, sign, or seal). PD shall implement an effective grievance mechanism including monitoring of grievances. VVB shall check the grievance mechanism implemented by the PD during the next verification.			
Project Participant's response		*Date:*	11/03/2025
The grievance mechanism had been strengthened to ensure its effectiveness. A revised grievance template was implemented, incorporating necessary details such as date, signature, and seal to enhance credibility. The PD had also established a systematic approach for monitoring grievances. During the verification, the VVB assessed the effectiveness of the implemented grievance mechanism to ensure compliance with the required standards.			
Documentation provided as evidence by Project Participant			
Grievance Register			
Auditor's assessment comment		Date:	03/04/2025
The Project Developer has implemented a revised grievance template in accordance with the FAR raise during previous performance review. During the current verification, the VVB reviewed the updated grievance mechanism and verified records maintained by the PD. The implemented system is found to be credible and effective in tracking and resolving grievances. Thus, accepted and FAR closed.			

Corrective Action Request/Clarification Request/Forward Action Request resolution table raised for current Monitoring Period

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	01
Raised by:	VVB	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	10/02/2025
With reference to submitted documents and monitoring report: 1. Supporting evidences (Training record's) for the SDG 8 are not submitted for the current monitoring period 20/09/21 – 30/06/2024. 2. Grievance register observed to be missing from the submitted set of the documents.			
Project Participant's response		*Date:*	11/03/2025
1. Supporting evidences (Training record's) for the SDG 8 are now being submitted to verification team for current monitoring period. 2. Grievance register is now being submitted to verification team for current monitoring period.			
Documentation provided as evidence by Project Participant			
1. Training record's *2.* Grievance register			
Auditor's assessment comment		Date:	03/04/2025
1. Project proponent has submitted training records which are checked by the verification team and found that records are only submitted from 2023-24, however, it not covers complete monitoring period. Therefore, PP shall check and provide detailed clarification along with supportive. 2. Grievance register observed to be missing from the submitted set of the documents. PP shall check and submit the same for current verification. **Hence, CL remains OPEN**			
Project Participant's response		*Date:*	16/04/2025
1. Supporting evidences (Training record's) for the SDG 8 are now being submitted to verification team for current monitoring period. 2. Grievance register is now being submitted to verification team for current monitoring period.			
Documentation provided as evidence by Project Participant			
1. Training record's *2.* Grievance register			
Auditor's assessment comment		Date:	25/04/2025
1. Training records covering current monitoring period has now been submitted which have been verified by the assessment team and found acceptable. 2. Grievance register pertaining to monitoring period 20/09/2021 to 30/06/2024 has now been submitted which has been checked and verified by the assessment and found acceptable. **Hence, CL is Closed now.**			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	02
Raised by:	VVB	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	10/02/2025

Under section A.1 of the submitted monitoring report: • With reference submitted ER spreadsheet, Actual emission reductions achieved during the current monitoring period observed to be inconsistent.		
Project Participant's response	Date:	11/03/2025
The Emission Reduction sheet is being updated and the actual emission reductions achieved during the current monitoring period being mentioned in revised Monitoring Period and Emission Reduction sheet. The updated Monitoring Report is also being submitted to the verification team. Now the Values are consistent.		
Documentation provided as evidence by Project Participant		
1. Emission Reduction sheet V02 2. Monitoring Report V02		
Auditor's assessment comment	Date:	03/04/2025
Updated ER spreadsheet has now been submitted. The value of actual emission reductions and electricity generation achieved during the current monitoring period has now been corrected. Further, information has been checked and found consistent with Monitoring Report. **Hence, CL is closed.**		

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	03
Raised by:	VVB	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	10/02/2025
During the onsite visit, meter change for check meter has been observed however, details of the same found missing from the submitted monitoring report. Clarification required along with meter change document and calibration certificate.			
Project Participant's response		*Date:*	11/03/2025
Meter change certificate and updated calibration details are being added in revised monitoring report.			
Documentation provided as evidence by Project Participant			
1. Meter change Record 2. Calibration certificate			
Auditor's assessment comment		Date:	03/04/2025
Meter change date has now been included under the revised monitoring which has been checked and found in-line with submitted meter change document by dated 27/11/2023. **Hence, CL is closed.**			

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	01
Raised by:	VVB	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	10/02/2025

Under section A of submitted monitoring report "General Description of Project", • Under section A.1, PP shall incorporate chronology table of key events occurred pertaining to GS project activity for more clarity. Corrective action sought. • Under section A.4, Duration of 2nd crediting period is wrongly mentioned, corrective action shall be required.		
Project Participant's response	Date:	11/03/2025
• In Section A.1, a chronology table of key events related to the GS project activity is now being included in the revised monitoring report. • Under Section A.4, Duration of 2nd Crediting period is being corrected in revised monitoring report.		
Documentation provided as evidence by Project Participant		
Monitoring Report V02		
Auditor's assessment comment	Date:	03/04/2025
Under section A of revised monitoring report: • Chronology table incorporating major key events pertaining to current project has now been included. • Duration of second crediting period details has now been corrected which is checked and found in-line with registered documents. **Hence, CAR is closed.**		

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	02
Raised by:	VVB	Ref. to checklist in above tables:	3.2
Description of the audit finding		Date:	10/02/2025
• PP shall include the number of solar modules, Inverter, transformers their numbers. Also, submit as built solar plant layout and SLD • For section B.1.1, Evidence shall be required (performance review) to support the statement, "No FAR raised during previous verifications".			
Project Participant's response		Date:	11/03/2025
• PP included the number of solar modules, Inverter, transformers their numbers in revised monitoring report along with layout and SLD of Project activity. • Performance review closer letter is being submitted to verification team.			
Documentation provided as evidence by Project Participant			
• Technical Specifications • SLD • Performance review			
Auditor's assessment comment		Date:	03/04/2025

• Technical details like number of modules, Inverter, Transformer & their numbers are included in revised monitoring report. Further, Information has been cross-checked by the submitted single line diagram which has been checked and found acceptable to the GCC verifier. • Section B.1.1. has now been revised and previously raised FARs has now been included however, details are missing which mentions duration (monitoring period) for which particular FAR is raised. Thus, corrective action shall be required for further assessment. Hence, CAR is open.		
Project Participant's response	*Date:*	16/04/2025
The Project Developer has updated Section B.1.1 as per the instructions, included the previously raised FARs, and added the duration of monitoring period for each FAR for clarity.		
Documentation provided as evidence by Project Participant		
Revised Monitoring Report		
Auditor's assessment comment	Date:	25/04/2025
Details pertaining to previously raised FARs has now been incorporated under section B.1.1 which is checked and found in-line with MR Template Filling Instructions. **Hence, CAR is Closed now.**		

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	03
Raised by:	VVB	Ref. to checklist in above tables:	3.4
Description of the audit finding		Date:	10/02/2025
In section C of the submitted monitoring report • PP shall include the line diagram for each of the site and indicate monitoring equipment's location. Incorporated SLD is image observed to be un-clear. • Operation and Maintenance agreement shall be required for the project included under the current project activity. • Apportioning approach observed to be missing from submitted MR, PP shall incorporate the same and clarify how it's been applied for current monitoring period.			
Project Participant's response		Date:	11/03/2025
• SLD is being added in revised Monitoring Report and submitted to verification team. • Operation and Maintenance agreement is being submitted to verification team. • Apportioning approach is being added in revised Monitoring Report and ER sheet.			
Documentation provided as evidence by Project Participant			
1. Monitoring Report V 02 2. Operation and Maintenance agreement 3. SLD			
Auditor's assessment comment		Date:	03/04/2025

In section C of revised monitoring report: • Line diagram has now been included under section C of the revised monitoring report which are checked with submitted Single Line Diagram and found acceptable**.** • Operation and Maintenance agreement has now been submitted for the project included under the current project activity whose validity has been checked and found 25 years since the date of signing -.i.e. 29/09/2026. • Apportioning approach still observed to be missing from the Monitoring Report. **Hence, CAR is OPEN**		
Project Participant's response	*Date:*	16/04/2025
Apportioning approach is being added in revised Monitoring Report.		
Documentation provided as evidence by Project Participant		
Revised Monitoring Report		
Auditor's assessment comment	Date:	25/04/2025
Apportioning details has now been included under section C of updated monitoring report which has been checked and found acceptable to the assessment team. **Hence, CAR is closed.**		

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	04
Raised by:	VVB	Ref. to checklist in above tables:	3.4
Description of the audit finding		Date:	10/02/2025
Under Submitted Emission Reduction spreadsheet: • *PP shall demonstrate calculation in-line with formula encapsulated as per para 54 of applied methodology under, "Generation Data" of the plant.* • *Inconsistencies are observed for incorporated monthly generation data along with missing JMR / invoices. Corrective action shall be required for further assessment.*			
Project Participant's response			11/03/2025
Under Emission Reduction Sheet • The ER sheet is currently being revised, and calculations are being demonstrated in accordance with the applied methodology. • Correct JMR and Invoice Values are being added in revised ER sheet & Monitoring report.			
Documentation provided as evidence by Project Participant			
ER sheet V02 Monitoring Report V02			
Auditor's assessment comment		Date:	03/04/2025
• Under tab, "Generation Data" of revised ER spreadsheet, PP has now demonstrated the calculation in-line with formula encapsulated as per para 54 of applied methodology. • Inconsistencies have now been removed for incorporated monthly generation data. However, How the import value has been taken for JMR data. As same is not mentioned under submitted documents of few months covering under this monitoring period.			

Hence, CAR remains OPEN.		
Project Participant's response	*Date:*	16/04/2025
Correct values have been considered from the JMR and invoices for ER compilation. As a conservative approach, the minimum values have been taken for the final VER calculation		
Documentation provided as evidence by Project Participant		
Revised ER sheet		
Auditor's assessment comment	Date:	25/04/2025
Revised ER spreadsheet has now been submitted which are checked and found in-line with submitted JMR/Invoices. **Hence, CAR is closed.**		

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	05
Raised by:	VVB	Ref. to checklist in above tables:	3.4
Description of the audit finding		Date:	10/02/2025
Under Section D.2 of submitted Monitoring Report: • Calibration documents pertaining to current monitoring report are observed to be missing under the submitted set of the documents for the current project activity, PP shall submit the same and incorporate their values & validity under section D.2 of the monitoring report. • Meter details are observed to be inconsistent as per site visit observation. Corrective action shall be required along with supportive evidences. • Incorporate SDG values, observed to be inconsistent with submitted ER spreadsheet. Corrective Action shall be required.			
Project Participant's response			11/03/2025
Under Section D.2 • The calibration report for the current monitoring period is being submitted to the verification team, and the same details are being incorporated into the revised monitoring report. • Typographical errors are being corrected, and updated meter details are being included in the revised monitoring report. • Revised SDG values are being added to the updated monitoring report and ER sheet, both of which are being submitted to the verification team.			
Documentation provided as evidence by Project Participant			
ER sheet V02 Monitoring Report V02 Calibration record			
Auditor's assessment comment		Date:	03/04/2025
In section D.2 of revised Monitoring Report: • Calibration report of dated 31/08/2020 (main meter) along with meter change document by dated 27/11/2023 (check meter) has now been submitted which has been checked and found acceptable to the verification team. • Meter details are now corrected in revised monitoring report which has been further checked and found in-line with the calibration/meter change certificates and actual site			

observations.

- SDG values (SDG 7, SDG 8 and SDG 13) under revised monitoring report are now made consistent with submitted ER spread-sheet.

Hence CAR is closed

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	06
Raised by:	VVB	Ref. to checklist in above tables:	3.6
Description of the audit finding		Date:	10/02/2025

Under section E of submitted monitoring report,

- PP shall include information in-line with the MR Template Filling Instructions, Version 1.1 for section E.1.
- PP shall include information in-line with the MR Template Filling Instructions, Version 1.1 for section E.2.
- In section E.5, Estimated Emission reductions observed to be inconsistent with registered GS4GG PDD. Corrective action shall be required.

Project Participant's response	11/03/2025

Under Section E,

- The Project Participant has updated Sections E.1 of the Monitoring Report in accordance with the MR Template Filling Instructions, Version 1.1. All relevant details have been incorporated to ensure compliance with the prescribed guidelines.
- The Project Participant has updated Sections E.2 of the Monitoring Report in accordance with the MR Template Filling Instructions, Version 1.1. All relevant details have been incorporated to ensure compliance with the prescribed guidelines.
- Typo errors are being revised and correct values are being mentioned in revised ER sheet and Monitoring report.

Documentation provided as evidence by Project Participant

ER sheet V02

Monitoring Report V02

Auditor's assessment comment	Date:	03/04/2025

Under section E of revised Monitoring Report:

- Section E.1 has now been updated in-line with the MR Template Filling Instructions, V1.1 which is checked and found acceptable to the verification team.
- Section E.2 has now been updated in-line with the MR Template Filling Instructions, V1.1 which is checked and found acceptable to the verification team.
- Estimated Emission reductions now made consistent with registered GS4GG PDD.

Hence, CAR is Closed.

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Appendix 2: Calibration details of monitoring meters

The calibration dates are verified with the calibration certificates and found that calibration dates are consistent with the dates mentioned in calibration certificates. The calibration frequency of meters is once in 5 years and calibration of meters meet the requirement of calibration frequency.

Main Meter:

Meter Sl. No.	Meter Make	Accuracy Class	Date of Calibration	Due date for Calibration
15625430 (Main Meter)	Larson and Toubro Limited	0.2 s	31/08/2020	30/08/2025

Check Meter:

Meter Sl. No.	Meter Make	Accuracy Class	Date of Calibration	Due date for Calibration
15199969 (Check Meter)	Larson and Toubro Limited	0.2 s	31/08/2020	30/08/2025

Meter Change date: 27/11/2023

Meter Sl. No.	Meter Make	Accuracy Class	Date of Calibration	Due date for Calibration
UP-7870Z (Check Meter)	SECURE APEX 150	0.2 s	27/11/2023	26/11/2028

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Appendix 3: Audit Team CVs

Name	SHORT CVERSION BACKGROUND INFORMATION
Mr. Deepak Pundlik	Mr. Deepak Pundlik has more than 15 years of experience in climate change, waste management and environmental management. After completing Masters in Environment Sciences from Pune university, he worked in the waste management field. As a GHG consultant, he handled more than 50 projects under renewable energy, waste management sectors during his stint with companies MITCON and Thermax Limited. Post Thermax, Deepak was involved in organic farming research project with Tata Institute of Social Sciences. As a GHG auditor, he has validated/verified projects under CDM/VCS/GS and GCC mechanisms from renewable energy, energy demand, waste management sectors handling more than 15 projects. Currently he is associated with True Quality Certifications Private Limited (Applus+ Certification's Outsourced Entity) as GHG Auditor. He has experience in validation/verification assessments under CDM/VCS/GS and GCC mechanisms for the Sectoral Scopes of renewable energy, energy demand and waste management. Mr. Deepak Pundlik is based in Indore, India. Mr. Deepak Pundlik participates in this project in the role of Auditor as part of Audit Team.
Mr. Amit Rai	Mr. Amit Rai, has done Bachelor of Technology in Electrical & Electronics Engineering from Dr. A.P.J. Abdul Kalam Technical University, India and Government Certified Competency Class – I, Electrical Supervisor from Government of National Capital Territory of Delhi, India. He has more than (8) years of working experience in different organizations like Sunrator Technologies, Sun Source Energy Private Ltd. (SHV Energy Group, Singapore) & KBS Certification Services Private Ltd. (UNFCCC's – DOE), In the area of Renewable Project Management, Execution, Designing & Climate Change Services. Currently he is associated with True Quality Certifications Private Limited (Applus+ Certification's Outsourced Entity) as GHG Auditor. He has experience in validation/verification assessments under CDM/VCS/GS and GCC mechanisms for the Sectoral Scopes of renewable energy, energy demand and waste management. Mr. Amit Rai is based in South – East Delhi, India. Mr. Deepak Pundlik participates in this project in the role of Lead Auditor & Technical Expert as part of Audit Team.
Mr. Kumar Shubham	Mr. Kumar Shubham has completed an Integrated M.Tech in Energy Engineering from the Central University of Jharkhand in 2021. His research interests and experience include working on biomass-derived anode materials for sodium-ion batteries and participating in a research-based training program at IIT Guwahati where he worked on solar simulators, engine testing with biofuels, and solar PV waste management. He also gained project-based training at Jindal Steel and Power in energy saving. His research findings has been published in the Journal of Energy Storage. Currently he is associated with True Quality Certifications Pvt. Ltd. (Applus+ Certification Outsourced Entity) since 2023 and has been involved in supporting Audit teams for Validation/Verifications of Project Activities (Renewable and non-Renewable projects) under CDM/VCS/GS4GG/GCC programs. Mr. Kumar Shubham is based in Indore, Madhya Pradesh, India Mr. Kumar Shubham participates in the role of Technical Expert-in-Training & Auditor in Training as part of the Audit Team.

Mr. Saurabh Sanjay Gaikwad	Mr. Saurabh Gaikwad holds a Bachelor of Technology (B. Tech) degree in Environmental Engineering from KIT's College of Engineering in Kolhapur, Maharashtra, India. With more than 3.5 years of experience, he has worked extensively in the field of Carbon Markets and Climate Change, specifically focusing on UNFCCC CDM and other carbon-related schemes such as VCS, GS4GG, GCC, etc. During this time, he has been involved in audit teams for various projects under CDM/VCS/GS/GCC, assuming the various roles of Audit or, Technical Expert, Trainee Validator, Verifier, and Auditor in Training. Since June 2022, Mr. Saurabh Gaikwad has been working at Applus+ Certification as Technical Support for the CDM Department. In this role, he actively participates in different stages of the VVC processes and conducts administrative reviews of final submission documents and post submission registry findings reviews to ensure the quality of reports, project documents and compliance with standard requirements. Additionally, he serves as Auditor and Technical Expert for the Validation and Verification of Projec t Activities, encompassing both renewable and non-renewable projects, under the CDM/VCS/GS4GG/GCC, etc. programs. Mr. Saurabh Gaikwad is based in Pune, India. Mr. Saurabh Gaikwad participates in this project in the role of Technical Reviewer in Training (TRiT) as part of the Technical Review Team.
Mr. Denny Xue	Mr. Denny Xue (Master's Degree in Environmental Engineering, Bachelor's Degree in Thermal Engineering) is an Auditor appointed by Applus+ Certification (LGAI Technological Center, S.A) for the GHG project assessment, auditing and technical review. He has more than 10 years of work experience in CDM/GS4GG/VCS project assessment and technical review with Applus+. Before he joined Applus+ Certification (LGAI Technological Center, S.A), he has been working for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development. Mr. Denny Xue is based in Shanghai, China. Mr. Denny Xue participates in the Technical Review team as Technical Reviewer

Appendix 4: Breakdown Details

Date	**Total Down Time duration**	**Reason of Down**	**Corrective Action Taken by Site Team**
05/06/2023	12:31	String FUSE BLOWN	We checked and found SCB 7 Y-1 B/D due to string fuse blown we replaced and restart again.
08/07/2023	13:19	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning last night.
09/07/2023	13:21	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.

11/07/2023	12:06	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
12/07/2023	12:06	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
13/07/2023	13:12	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
14/07/2023	13:11	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
15/07/2023	13:11	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
16/07/2023	13:13	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
18/07/2023	13:33	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
19/07/2023	13:32	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
20/07/2023	13:29	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
21/07/2023	13:31	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
22/07/2023	13:31	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
23/07/2023	13:31	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
24/07/2023	13:29	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.

25/07/2023	13:10	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
26/07/2023	13:10	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
27/07/2023	13:19	Open Circuit Voltage Not Showing	We checked and found SCB 2 Y-3 B/D due to 25 Modules Diodes failure through sky lightning. We bypass 25 Modules and start half string.
08/08/2023	13:10	String to SCB cable fault	Checked and found SCB1 Y-1, Y-2, Y-3, and Y-4 B/D due to string cable, MC4 connectors, and Y connector burnt. Replaced all components and restarted.
18/08/2023	12:55	String FUSE BLOWN	We checked and found SCB1 Y-1 B/D due 30amp dc fuse blown. We replaced and restart again.
Total	276:30		