# GS4GG Verification (Performance) Certification Report

**VKU Certification Pvt. Ltd.**
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Project Title
**50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP**

Registry Project ID: 7137
Monitoring Period: **01/01/2021 to 15/11/2023 (Inclusive of both dates)**

For
**Prayatna Developers Pvt. Ltd.**

VKU Project Reference No.
**VKU.VER.45.25_GS_7137**

## Executive Summary:

| A) Basic information | |
|---|---|
| Project Title | 50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba UP |
| GS4GG Project ID: | 7137 |
| Date of Project Design Certification | 16/11/2020 |
| Last Date of Annual Report | 30/12/2024 |
| VKU Project Reference No. | VKU.VER.45.25_GS_7137 |
| Sectoral scope | Scope: 01 Energy Industries (renewable- and non-renewable sources) and sub sectoral scope 1.2 |
| Methodology/ies applied | ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0 |
| Technical Area (TA) | T.A. 1.2 (Solar) |
| Host country | India |
| Location | The Project is located at Akathauha village of Mahoba district, in state of Uttar Pradesh, India. |
| Project Representative | Prayatna Developers Pvt. Ltd. |
| Project Developer/Investor | Prayatna Developers Pvt. Ltd. |
| GS4GG Activity Requirements | Renewable Energy Activities |
| GS4GG Certified Product | ☒GHG Emissions Reduction & Sequestration<br>☐Renewable Energy Label<br>☐N/A |
| Selected Sustainable Development Goals and GS4GG SDG Impact Statement | **SDG 7 (Affordable and Clean Energy)**: 289,877 MWh<br>**SDG 8 (Decent Work and Economic Growth)**: Training – 06 (Number)<br>Employees – 12 (Number)<br>Income – 48,85,333.44 (INR)<br>**SDG 13 (Climate Action (mandatory)**: 273,034 $tCO_2e$ |
| Scale of Project Activity | Large scale |
| **B) Verification** | |
| Start date of crediting period[1] | 16/11/2018[2] |
| End date of crediting period | 15/11/2023 |
| Type and Length of Crediting period | 7 years which will be renewed twice totaling to 15 years (7+5+3) |
| Monitoring Period | 01/01/2021 to 15/11/2023 (both dates included) |

[1] CDM Crediting period of this project activity was 27/08/2020 to 26/08/2027 and GS Design Certification date is 16/11/2020.

[2] 10.2.1 of GHG Emissions Reduction & Sequestration Product Requirements v.2.1 "The start date of Crediting Period is the date of start of operation (start of planting for A/R Projects) or a maximum of two years (three years for A/R & AGR) prior to the date of Project Design Certification, whichever occurs later." Therefore, the start date of crediting period is considered as 16/11/2018 which is 2 years prior to the GS Design Certification date.

| C) Monitoring report | Version | Date |
|---|---|---|
| Initial | 01 | 24/03/2025 |
| Final | 04 | 31/07/2025 |
| **D) Performance Certification report** | **Version** | **Date** |
| Initial | 01 | 25/07/2025 |
| Final | 03 | 06/08/2025 |
| **E) Verification Team** | | |
| Team Leader[3] | Shivani Chauhan | |
| Technical Expert (TA 1.2) | Shivani Chauhan | |
| Validator/Verifier- Trainee | Komal Kumari | |
| Local Expert (Country) | Shivani Chauhan (India) | |
| **F) Approvals** | | |
| Technical Reviewer[4] | Barun Kumar | |
| Technical Expert (TA 1.2) | Barun Kumar | |

**G) Final opinion**

VKU Certification has performed the 2nd verification of the first crediting period of the GS4GG project **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** and GS4GG Ref. Number **7137**. The verification includes confirmation about the implementation of the monitoring plan of the PDD and the application of the monitoring methodology as per ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0 /12/. VKU Certification confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The emission reductions from the GS4GG project activity ID **7137 "50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** in India during the period 01/01/2021 to 15/11/2023 (including both days) amount to 273,034 $tCO_2e$.

| VVB Opinion | Conclusion |
|---|---|
| Positive | ☒(Mark Tick if applicable) |
| Negative | ☐(Mark Tick if applicable) |

Therefore, VKU certification recommends request of Issuance to GS4GG.

| H) Authorization | |
|---|---|
| Director | Dr. Vikas Kumar Aharwal |
| Date | *07/08/2025* |

**I) Distribution**

No public distribution without written confirmation from client.

[3] Team Leader is an approved GS Auditor for VKU.
[4] Technical Reviewer is an approved GS Auditor for VKU.

| **J) Verification Status** | |
|---|---|
| Findings closed | Yes |
| Draft report | Yes |
| Final report | Yes |

## Abbreviations

| | |
|---|---|
| **AT** | Assessment Team |
| **CAR** | Corrective Action Request |
| **CDM** | Clean development mechanism |
| **CERs** | Certified Emission Reductions |
| **CL** | Clarification Request |
| **EB** | Executive Board |
| **ERs** | Emission Reductions |
| **FAR** | Forward Action Request |
| **FVR** | Final Verification Report |
| **GHG** | Greenhouse Gas(es) |
| **GS4GG VVS** | Gold Standard Validation and Verification Standard |
| **IPCC** | Intergovernmental Panel on Climate Change |
| **MR** | Monitoring Report |
| **PDD** | Project Design Document |
| **RCP** | Renewable of Crediting Period |
| **RMP** | Revised Monitoring Plan |
| **VERs** | Verified Emission Reductions |
| **VVB** | Validation and Verification Body |
| **VVS** | Validation and Verification Standard |
| **GSS** | Grid Sub Station |
| **O&M** | Operation and Maintenance |
| **OM** | Operating Margin |
| **PE** | Project Emissions |
| **PPA** | Power Purchase Agreement |
| **PV** | Photovoltaic |
| **OSV** | Onsite site Visit |
| **SCADA** | Supervisory Control and Data Acquisition |
| **TA** | Technical Area |
| **TR** | Technical Reviewer |
| **VERs** | Verified Emission Reductions |
| **VKU** | VKU Certification Ltd. |
| **VT** | Verification Team |
| **CM** | Combined Margin |
| **BM** | Build Margin |
| **JMRs** | Joint Meter Readings |
| **MP** | Monitoring Period |

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# 1. INTRODUCTION

## 1.1 Project Summary

The project activity titled **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** is a large-scale, grid-connected solar photovoltaic (PV) power project developed by **Prayatna Developers Pvt. Ltd.** with a total installed capacity of **50 $MW_{AC}$**. It comprises five individual solar PV projects of 10 $MW_{AC}$ each, implemented under the Jawaharlal Nehru National Solar Mission (JNNSM) Phase-II, Batch-II, Tranche–I, State Specific Bundling Scheme (Open Category). All five projects are located within a common project boundary at Villages Akathauha and Ghutbai, Tehsil Charkhari, District Mahoba, Uttar Pradesh in India.

The main objective of the project is to generate clean, renewable energy using solar resources and contribute to climate change mitigation by reducing greenhouse gas (GHG) emissions. The solar power generated is sold to NTPC Ltd. under a long-term Power Purchase Agreement (PPA). NTPC Vidyut Vyapar Nigam Limited (NVVN), acting on behalf of NTPC, purchases the electricity from the developer and supplies it to distribution companies (Discoms) through the Indian electricity grid. The power is evacuated via the 132 kV substation at Mahoba.

The project's primary aim is to harness solar energy (a clean, renewable, and abundant resource to generate electricity in a sustainable manner). By replacing fossil fuel-based power generation, the project supports the global effort to combat climate change and reduce reliance on non-renewable energy sources.

This renewable energy project is expected to displace approximately 100,020 MWh/year of electricity that would otherwise be generated from fossil fuel-based power plants, thereby avoiding an estimated 94,209 $tCO_2e$ of GHG emissions annually. The project involves the installation of a new renewable energy facility and is not part of any excluded Clean Development Mechanism (CDM) Programme of Activities (PoA).

The details of the project are mentioned in the table below:

| **Project developer's Name** | **Commissioning Date** | **Capacity in MW** | **Location** | **Coordinates** |
|---|---|---|---|---|
| Prayatna Developers Pvt. Ltd. | 07/06/2017 | 50 MW(AC) | **Village:** Akathauha & Ghutbai, in **Tehsil:** Charkhari, **District:** Mahoba, **State:** Uttar Pradesh | 25°27'32"N, 79°42'47"E |

| | | | | |
|---|---|---|---|---|
| | | | **Country:** India | |

The above-mentioned commissioning date of all the site are verified via commissioning certificates provided by PD.

### 1.2 Objective

Prayatna Developers Pvt. Ltd. has contracted VKU Certification Private Limited to conduct the verification and certification of emission reductions reported for the GS4GG project activity 7137 **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** in India for the period from 01/01/2021 to 15/11/2023 (both dates included). This report contains the findings of the verification process and a certification statement for the verified emission reductions.

The verification is the periodic independent review and ex post determination by VKU Certification of the monitored reductions in GHG emissions that have occurred as a result of the registered GS4GG project activity during a defined monitoring period. Certification is the written assurance by VKU Certification that, during a specific period in time, a project activity achieved the emission reductions as verified.

The objective of this verification is to verify and certify emission reductions reported for the **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** for the period 01/01/2021 to 15/11/2023 (both dates included) as per GS4GG validation and verification standard v2.0 para 1.1, 9.1 and sub para 9.1.1 /4/.

VKU conducts the verification for the second monitoring period of the first crediting period, covering the duration from 01/01/2021 to 15/11/2023 (inclusive of both dates), for a total of 1049 days. The project activity follows a renewable crediting period which will be renewed twice totalling to fifteen years.

**The objectives of this verification exercise are, by review of objective evidence, to establish that:**

- The project activity has been operating with all its physical features (technology, project equipment, and monitoring) of the project are in place;
- Monitoring report/19/ and other supporting documents are complete;
- The data is recorded and stored as per the monitoring methodology and approved monitoring plan.
- To confirm that the monitoring system is implemented and fully functional to generate Verified Emission Reductions (GS-VERs) without any double counting.

- To establish that the data reported are accurate, complete, consistent, transparent, and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

Additionally, detailed examination of the monitoring records and emissions reduction calculations has been carried out to guarantee the completeness, consistency, transparency and absence of any material errors or omissions in the reported data. This aims to establish the reliability and integrity of the data.

### 1.3 Scope and Criteria

The scope of this verification is independent objective review and ex-post determination of the monitored reductions in GHG emissions from the "**50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"**. The verification of this project has been based on the validated & registered GS4GG PDD version 05, dated: 10/12/2020 and monitoring report /19/ along with supporting documents submitted by the project representative to the assessment team. The documents thus submitted to the Assessment Team were reviewed against the following guidance and protocol:

1. GS4GG validation and verification standard v2.0 para 1.2 & para 9.7.2 /4/
2. GS4GG Principles and Requirements v2.1 /1/
3. Approved CDM Large Scale Consolidated Methodology: ACM0002 "Grid- connected electricity generation from renewable sources" (Version 20, EB 105) /12/

**The steps involved are as follows:**

- To assess the project's compliance with other relevant rules including the host country (India) legislation.
- To confirm that the monitoring system is implemented and fully functional to generate verified carbon units (GS-VERs) without any double counting.
- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement & is sufficiently supported by evidence.
- The verification process ensures that the reported emission reductions are comprehensive and accurate in order to obtain certification.

**The verification method and criteria encompassed several phases, including**

1. Desk Review of GS4GG project design document version 05 dated: 10/12/2020, and supporting documents listed in section 04 of this report, which is provided by the Project Representative to assessment team.
2. Onsite Audit has been conducted by VKU on 11/04/2025 in-line with Site Visit and Remote Audit Requirements and Procedures Version 02 dated 30/05/2023 /5/.
3. Reporting, calculation checks, and resolution of findings
4. Drafting of verification report
5. VKU's independent technical review of project before completeness /Quality Check, and
6. The final issuance of the verification report
7. Submission of the request for issuance, as appropriate

Outstanding issues are resolved, leading to the issuance of the final verification report. It is important to note that the verification process does not involve providing any consultancy to the project Developers. However, requests for clarifications and corrective actions may have contributed to improvements in the monitoring processes.

### 1.4 Level of Assurance and Application of Materiality

All the revisions of verification report before being submitted to the client are subjected to an independent internal technical review to confirm that all verification activities have been completed according to the pertinent VKU's procedure, with a Reasonable level of Assurance, as per the GS4GG validation and verification standard v2.0 /4/ and GS4GG Principles and Requirements v2.1 /1/.

VVB applies the general requirements, consideration of materiality in planning verification and for conducting verification is as per the GS4GG validation and verification standard v2.0, para 9.6 /4/. For the identification of materiality threshold VVB referred para 9.6.3 of validation and verification standard v2.0 and apply to the total emission reductions actually achieved by the **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"**. As per the GS4GG validation verification standard section 9.6, the level of assurance of the verification report falls under reasonable assurance engagements with respect to material errors, omissions, and misrepresentations.

**Table 01.**

| **Application of Materiality Threshold as** | | **Reported ERs ($tCO_2e$)** | **Justification** |
|---|---|---|---|

| per the GS4GG VVS v1.0 para 9.6.3 | Materiality threshold value ($tCO_2e$) | In Initial MR | In Final MR | (If any deviation) |
|---|---|---|---|---|
| 2% | 5,464.78 $tCO_2e$ | 273,239 $tCO_2e$ | 273,034 $tCO_2e$ | Assessment team confirms that as per clause 9.6.3 of GS4GG Validation and Verification Standard version 2.0 /04/, the materiality threshold applies to the total emission actually achieved. The change in initial and final MRs – GS VERs have been observed to be of 205 GS VERs, which is 0.075% change in emission reduction and found to be within the range hence it is accepted by assessment team. |

### 1.5 Information of VVB

**Table 02. VVB Information**

| | |
|---|---|
| **Name of the VVB** | VKU Certification Private Limited |
| **GS accreditation expiry date** | 20/06/2026 |
| **Is the VVB accredited for the applicable sectoral scope?** | Yes |
| **Name, position of the approver of the verification report** | Barun Kumar |
| **Signature** | Barun Kumar |
| **Name, position of the authorized signatory for issuance of the verification report** | Dr. Vikas Kumar Aharwal<br>Director, VKU Certification Pvt. Ltd. |
| **Signature (Final version only)** | VIKAS KUMAR AHARWAL Digitally signed by VIKAS KUMAR AHARWAL Date: 2025.08.07 12:12:19 +05'30' |

### 1.6 Sustainable Development Contributions

**Table 03: Sustainable Development Contributions for verification**

| Sustainable Development Goals Targeted | SDG Impacts | Estimated Annual Average | Units |
|---|---|---|---|
| 13 Climate Action (Mandatory) | Emission Reduction | 94,209 $tCO_2$/Year | $tCO_2$/Annum |
| SDG 7 (Affordable and Clean Energy) | MWh of renewable energy generated | 100,020 MWh/Year | MWh/Annum |
| SDG 8 (Decent Work and Economic Growth) | Trainings<br>Employees<br>Income (INR) | 1 training/year | Number<br>Number<br>INR |

## 2. METHODOLOGY

VKU Certification assessed and determined whether the implementation and operation of the project activity, and the steps taken to report emission reductions comply with the GS4GG criteria and relevant guidance provided by the GS4GG impact registry.

The assessment involved a desk review of relevant documentation as well as an on-site visit. The personnel employed and their roles in this assessment is mentioned below;

**Verification Team member(s)**

| S.No. | Full Name | Gender | Role(s) | Type of Resource | Type of Activity(ies) carried out |
|---|---|---|---|---|---|
| 1. | Shivani Chauhan | Female | Team Leader cum Technical Expert (TA 1.2) | Internal Resource | DR/OSV/I/VF/FVR[5] |
| 2. | Komal Kumari | Female | Validator-Verifier Trainee | Internal Resource | DR/VF |

**Technical Reviewer(s) and approver(s) of the verification report**

[5] DR- Desk Review
OSV- Onsite Visit
I-Interview
VF-Verification Finding
DVR-Draft Verification Report
FVR-Final Verification Report

| S.No. | Full Name | Gender | Role(s) | Type of Resource | Type of Activity(ies) carried out |
|---|---|---|---|---|---|
| 1. | Barun Kumar | Male | Technical Reviewer cum Technical Expert (TA 1.2) | Internal Resource | Technical Review |

The competence statement of verification team members is included under Section 07 of this report.

**Verification milestones:**

| | |
|---|---|
| **Monitoring report submission:** | 24/03/2025 |
| **On-site assessment and Interview:** | 11/04/2025 |
| **Draft Verification Report** | 25/07/2025 |
| **Final Verification Report** | 06/08/2025 |

VKU Certification followed a rule based verification approach, wherein, the contract review is undertaken as per valid/effective version of GS4GG accreditation Standard. Once the contract is agreed for verification, the monitoring report of the project activity submitted to VVB for further process. Key steps are described in Section 2.1 to 2.4 of this report.

The project activity does not fall under category "grouped projects"; hence no sampling methods has been employed by the assessment team and during onsite audit. Assessment team reviewed 100% data for this project at site for the verification of GHG emission reductions generated by the project.

- The GHG emission reductions are based on the approved Baseline and monitoring methodology: ACM0002 "Grid- connected electricity generation from renewable sources" (Version 20, EB 105) /12/.
- Scope : 01 - Energy Industries (renewable /non-renewable sources)
- Project type: Type I - Renewable energy projects

Keeping in line with ISO (14064-3; 2019, clause 06 & 14065-2020, clause 09) /16 & 17/ Standard guidelines, assessment team has framed down the process for completing the verification and has followed the same throughout the execution of audit of the said project GS 7137.

The verification consisted of the following phases.

a. **Document Review:** Relevant documents, such as the Monitoring report, Previous verification reports, monitoring plan, methodology, GS4GG PDD and QA/QC procedures are thoroughly reviewed.

b. **Planning:** The assessment team plans the GHG-programme and starts with a desk review.

c. **Strategic Analysis:** Assessment team performed strategic analysis to understand the activities and complexity of the project, and to determine the nature and extent of the verification activities. The results of the strategic analysis shall be used in the risk assessment.

d. **Risk Assessment;** Assessment team performed risk assessment /40/ of the GHG statement to identify the risk of a material misstatement or nonconformity with the criteria, as per para 9.7.3 (a) and as per para 7.9.2 (e) of the GS4GG VVS V2.0/4/. The same has been documented in a different VKU internal document where the type of risks were identified and then evaluated.

e. **Evidence Gathering Activities;** Using risk-based approach assessment team prepared evidence gathering activities, to collect sufficient and appropriate evidence upon which the conclusion shall be based. It will also determine whether the GHG statement conforms to the criteria, taking into account the principles of the standards or GHG programme that apply to the GHG statement.

f. **Evidence Gathering Plan;** The evidence-gathering plan is prepared based on the results of the VKU's Assessment Team's risk assessment. It has been designed to lower the verification risk to an acceptable level. The evidence-gathering plan thus specifies the type and extent of evidence-gathering activities & Plan /42/.

g. **Audit Plan:** An audit plan is prepared, including all sub-elements required for an integrated verification process aligned with the contract, scope, objectives, level of assurance and materiality. /41/

h. **Client Confirmation and Approval:** The audit plan is sent to the client for review and confirmation via email.

i. **Onsite Audit Assessment:** This includes interviews and evaluation of the actual project scenario. /35/

j. **Resolution of Discrepancies:** Any non-conformities identified during the assessment are addressed and resolved.

k. **Independent Review:** A technical reviewer provides an independent assessment.

l. **Completeness Check:** Assessment for Quality Check and Quality Assurance of the final documents.

m. **Final Verification:** After completeness checks, the verification report and certification are issued.

The following sections outline each step in more detail

### 2.1 Desk Review or Document Review

VKU Certification conducted a desk review or document as under;

- A review of the data and information presented to verify their completeness;

- A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

In addition to the monitoring documentation, VKU Certification has reviewed;

- The PDD Version 05 dated 10/12/2020 and the monitoring plan, including any approved revised monitoring plan and/or changes from the registered PDD, and the corresponding validation opinion;
- The Validation Report Version 02 dated 14/12/2020;
- Previous verification report,
- The applied monitoring methodology (ACM0002 "Grid- connected electricity generation from renewable sources" V20) and, where applicable, the applied standardized baseline;
- The monitoring report (all versions) to verify that it is as per the standardized format;
- Any other information and references relevant to the project activity's emission reductions (e.g., IPCC reports, data on electricity generation in the national grid or laboratory analysis and national regulations).

**Document Review involving:**

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan, the monitoring methodology including applicable tool(s) and, where applicable, the applied standardized baseline, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

In addition to the monitoring documentation, Assessment team verified a number of documents that is listed under section 04 of this report.;

### 2.2 Site Visits (Onsite inspection)

A site visit has been undertaken by VKU Certification on 11/04/2025 as per the "GS4GG site visit and remote audit requirements and procedures" v2.0 dated 30/05/2023 /5/ and "GS4GG applicability of minimum site visit requirement by VVB" dated 16/08/2021 v2.0 /6/ and carry out following;

- An assessment of the implementation and operation of the registered project activity as per the registered PDD;
- A review of information flows for generating, aggregating and reporting the monitoring parameters;
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PDD and MR;
- A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

Assessment team also confirm that there is no deviation(s) to address a non- compliance with the minimum site visit requirement as per the GS4GG requirement [6].

**Interview**

An onsite audit /35/ is conducted by the assessment team. Project Representatives and the Operation & Maintenance team are personally interviewed /35/ by the team leader on 11/04/2025 in the village of Akathauha, located in Mahoba district, Uttar Pradesh, India., where the project is implemented. Personnel responsible for monitoring of project activity, data collection, management, and QA/QC procedure has been also interviewed. These tables outline the personnel involved in the interviews, along with their respective roles. The interviews specifically targeted individuals responsible for monitoring of project activity, data collection, quality assurance and quality control (QA/QC) procedures.

| **Date of Onsite Inspection: 11/04/2025** | | | |
|---|---|---|---|
| **Name** | **Role** | **Location of Site** | **Activity Performed On-Site** |
| **Shivani Chauhan (Interviewer)** | Team Leader cum Technical | Village - Akathauha<br>District - Mahoba | • A review of information flows for generating, aggregating and reporting of the monitoring parameters. |

[6] https://globalgoals.goldstandard.org/112_par_site-visit-and-remote-audit-requirements-and-procedures/

| | | | |
|---|---|---|---|
| | Expert (TA 1.2) | State - Uttar Pradesh<br>Country - India | • Interviews with site personnel to confirm that the operational and data collection procedures along with SDGs are implemented in accordance with the Monitoring Plan<br>• A cross-check between information provided in the MR and data from other sources<br>• A check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology.<br>• A review of calculations and assumptions made in determining the GHG data and ERs, and<br>• An identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters |

The topics covered during interview ranges from general features and implementation of project to technical details of the project like calibration, monitoring and measuring system, data collection, recording, emergency procedures, Procedures for handling non-conformances with the validated monitoring plan, and data archiving procedures. The assessment has been based on the feedback received during onsite audit interview coupled with the documentation in **VKU.F64W.Field Assessment Checklist** for onsite audit /38/. The tables serve to identify the individuals interviewed and provide relevant information regarding their roles within the project.

During Onsite Audit /35/, local stakeholders involved in the project i.e., people living in the village or nearby areas where the project is implemented have also been interviewed to verify implementation of grievance mechanism and process of its resolution, as mentioned in the Monitoring report/18/. It also included confirmation of sustainable development claims and verification of the socio-economic impact made by the project in nearby villages and on the local people. VKU assessment team also cross-checked records and observed that the PD has provided opportunities for the locals to express their opinions and grievances in the grievance register placed at the plant office. Project developer has put efforts to resolve issues through effective communication & consultation with stakeholders. VKU assessment team could verify & confirm all the above statements via focussed group discussions and personnel interview /35 & 37/ with stakeholders. VVB has included the gender information of stakeholders included as per the requirements of 9.7.2 (e) of GS4GG as tabulated below:

**Personnel Interview**

| S. No | INTERVIEWEE | | | DATE | SUBJECT | TEAM MEMBER INVOLVED |
|---|---|---|---|---|---|---|
| | Name | Gender | Affiliation | | | |
| 1. | Vedant Nigam | Male | Adani Renewable (Sr. Engineer) | 11/04/ 2025 | 1. Operation and maintenance Procedures, Calibration, Meter Control Data.<br>2. Local employment, trainings,<br>3. Monitoring of SDG parameters<br>4. Data archiving, breakdown details<br>5. O&M of the plant site and personnel responsible for monitoring of required monitored parameters and implementation of QA/QC Procedure.<br>6. Stakeholder meeting Employment opportunities, Standard of Livings etc. | Shivani Chauhan – (Team Leader) |
| 2. | Bhagenand Meena | Male | Adani Renewable (A.M) | | | |
| 3. | Alok Kumar | Male | Adani Renewable | | | |
| 4. | Anirudh Chand | Male | AGEL | | | |

During the onsite audit, the assessment team conducted interviews with local stakeholders to verify the project's grievance redress process and to confirm the Sustainable Development Goal (SDGs) claim, as outlined in the Monitoring Report submitted by the Project Developer. These interviews also assessed the socio-economic impact of the project on the local people. Prior to each interview, the **assessment team sought explicit personal consent** in writing from each participants, as the interviews were recorded for VKU's internal documentation. All recordings and personal data were handled in line with the confidentiality agreement established between VKU and the PD, ensuring a high level of data privacy and ethical compliance.

**Local Stakeholder's Interview**

| S.NO | INTERVIEWEE | DATES | SUBJECT | TEAM MEMBER INVOLVED |
|---|---|---|---|---|
| | Name & Gender | | | |

| | | | | |
|---|---|---|---|---|
| 1. | Mahendra Shrivastav (Male) | 11/04/2025 | • Execution of Project activity and its impact on the economic, social and environmental parameters on the local people of the area & around the situated project activity.<br>• The ongoing communication procedure and the address of their grievance mechanism followed by the project proponent.<br>• Scope and generation of employment in the local areas due to the implementation of said project activity. | Shivani Chauhan – (Team Leader) |
| 2. | Shivam Yadav (Male) | | | |
| 3. | Nafees (Male) | | | |
| 4. | Rakesh Kumar (Male) | | | |

VKU's Assessment Team has recorded attendance of all personnel interviewed present during opening and closing meeting in a form **VKU.F46W (Attendance Sheet for audit)** & same is kept as evidence of the onsite visit. Stakeholder consultation interview has been also conducted by asking the site personnel to arrange some local stakeholders for maintaining the impartiality. During the interaction with local stakeholder's details about the positive and negative impact of plant activities on their lives and the nearby village have been collected along with any kind of CSR activities that has been conducted by PD in the villages & no negative comments have been received during the interviews with these local stakeholders during the onsite visit.

Assessment Team confirms that there is no perceived or potential conflict of interest and provided complete list of the people interviewed during site visit, including information on the organization they represent are disclosed in public document by their consent provided during the interview and signature in the VKU.F46W Attendance Sheet for audit.

### 2.3 Reporting of Findings

The objective of this step is to identify, discuss and conclude on the issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions. This is done based on the desk review and onsite assessment. The Assessment team prepares and/or updates a verification protocol (internal document) that records the conformities and non-conformities, which may be of following types;

**CAR (Corrective Action Request) is raised** if one of the following occurs:

- Non-compliance with the monitoring plan, the methodology or the standardized baseline 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.

**Clarification request (CL) is raised** if information is insufficient or not clear enough to determine whether the applicable GS4GG requirements have been met. All CARs and CLs raised by the VKU Certification during verification shall be resolved prior to submitting a request for issuance.

**FAR (Forward Action Request) is raised** during verification if the monitoring and reporting require attention and/or adjustment for the next verification period.

In summary, **05 CLs, 03 CARs and 00 FAR** were raised during this verification which has been closed successfully, and details are provided under section 06 of this report.

All the findings that are raised and communicated to project representative during the verification are included under Section 06. The section also includes the response, if provided, by the project participants and an assessment by the assessment team if it was closed out or otherwise.

### 2.4 Technical Review

A draft verification report that is prepared by assessment team is reviewed by an independent technical review team (one or more members) to confirm if the internal procedures established and implemented by VKU Certification were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the GS4GG rules and requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the assessment team.

During the technical review process additional findings may be identified or the closed-out findings may be opened, which needs to be satisfactorily resolved before the request for issuance is submitted to GS4GG. The independent technical reviewer may either approve the report as such or reject/return the same in such case providing the comments/findings/issues that needs to be resolved by the assessment team. The decision taken by the Technical Reviewer is final and is authorized by the Managing Director on behalf of VKU Certification Private Limited.

# 3. VERIFICATION FINDINGS

This section summarises the findings from the verification of the emission reductions reported for the **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** for the monitoring period 01/01/2021 to 15/11/2023 (both dates included).

The project has exclusively applied for registration under the Gold Standard with ID: 7137. This registration status has been confirmed through rigorous inspection of the Gold Standard registry[7] website. A similar comprehensive search has been conducted across the CDM (Clean Development Mechanism), VCS (Verified Carbon Standard), GCC (Global Carbon Council) and UCR (Universal Carbon Registry) etc registries, using matching project titles and capacity, as well as Project Developer details. This project was registered under CDM mechanism with project CDM Ref number 10594[8], for the crediting period from 27/08/2020 to 26/08/2027 but no issuance of CERs happened in CDM registry. The GS Design certification date of this project activity was 16/11/2020.

**Verification through Declaration:**

The Project Developer (PD) has substantiated this single-registration claim through the declaration /31/ submitted, affirming that the GHG emission reductions achieved by the project during the current monitoring period will not be sought or claimed under any other registries apart from GS.

**Cross-Verification of GHG Benefits:**

An independent search has also been conducted to ascertain whether the project had been registered or claimed for other GHG-related benefits, such as International Renewable Energy Certificates (I-RECs). This thorough assessment, coupled with the declaration submitted by the PD, corroborates that there is no double counting of GHG benefits arising from this project activity for the current monitoring period.

The project's non-rejection status by other GHG programs has also been confirmed through a meticulous assessment. A declaration /31/ attesting to this fact has been duly verified and found to be accurate by the assessment team. Additionally, an independent verification process has been initiated with other relevant registries, which substantiated that there have been no instances of project rejection by these entities.

**Details of the registries checked are as follows:**

1) https://cdm.unfccc.int/Projects/projsearch.html
2) Verra Search Page

[7] https://registry.goldstandard.org/projects?q=7137&page=1

[8] https://cdm.unfccc.int/Projects/DB/Applus1597925806.04/view

3) I-REC Standard - The International REC Standard Foundation (irecstandard.org)
4) International Carbon Registry - International Carbon Registry
5) GCC PROJECTS PORTAL (globalcarboncouncil.com)

## 3.1 Description of project

### 3.1.1 General description of project

<table>
<tr><td>Verification Means</td><td>Means: During desk review and Onsite Audit<br>Activity Performed: The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/, & further with supporting documents submitted by the PD, validation Report and Previous verification report.</td></tr>
<tr><td>Findings</td><td>CL#02 has been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised.</td></tr>
<tr><td>Conclusions</td><td>The project activity was commissioned on 07/06/2017. It was subsequently registered under the CDM mechanism on 27/08/2020, and received Design Certification under the Gold Standard on 16/11/2020. This is the second verification under GS and verification is done in accordance with the registered PDD. The project comprises of 5 solar power plants of 10 MWAC each (total 50 $MW_{AC}$) under JNNSM Phase-II, Batch-II, Tranche-I, State Specific Bundling Scheme. Located in Akathauha and Ghutbai villages, Mahoba district, Uttar Pradesh, the power is sold to NTPC Ltd. under a PPA. NTPC, through NVVN, supplies it to Discoms via a 132 kV sub-station at Mahoba, feeding into the Indian grid<br>Technical details of the project activity are as follows:<br>Solar PV modules:
<table>
<tr><td>Module Supplier</td><td>Module Model</td><td>Capacity (p)</td><td>Number</td><td>Total Capacity (MWp)</td></tr>
<tr><td>Jinko</td><td>Poly C-Si</td><td>315</td><td>145178</td><td>45.73</td></tr>
<tr><td>Jinko</td><td>Poly C-Si</td><td>320</td><td>61576</td><td>19.70</td></tr>
<tr><td>Adani</td><td>Poly C-Si</td><td>325</td><td>5688</td><td>1.85</td></tr>
<tr><td>Adani</td><td>Poly C-Si</td><td>320</td><td>6688</td><td>2.14</td></tr>
<tr><td>Adani</td><td>Poly C-Si</td><td>315</td><td>704</td><td>0.22</td></tr>
<tr><td></td><td></td><td colspan="2">Total Capacity in MWp</td><td>69.65</td></tr>
</table>
Invertors:
<table>
<tr><td>S.No.</td><td>Make</td><td></td></tr>
</table></td></tr>
</table>

| | | |
|---|---|---|
| 1. | Manufacturer | Huawei |
| 2 | Model | SUN2000-43KTL |
| 3 | Rated Capacity | 43 KW, 52.5 KVA |
| 4 | No. of Inverters | 1163 |
| 5 | Rated Input Voltage (Max.Input Voltage) | 500 V |

**Transformer:**

| S. No | Make | |
|---|---|---|
| 1 | Manufacturer | T&R |
| 2 | Capacity | 5MVA |
| 3 | No. of Transformers 10 | 10 |
| 4 | Voltage Ratio | 500/33 KV |

**Metering Equipment Details**

| S.No. | Make | Sub-Station | Solar Plant End |
|---|---|---|---|
| 1 | Manufacturer | Secure Make | L&T Make |
| 2 | Type | ABT meters | ABT meters |
| 3 | Accuracy Level | 0.2s | 0.2s |
| 4 | Total no of meter | 2 | 5*2 = 10 |

The technical specifications outlined above have been confirmed through an onsite visit through the technical specification documents /27/, PPA /25/ provided by PD & the interviews during the site visit /33/35/. This information has been verified as accurate and cross-checked with the registered PDD/21/.

General description of the project has been verified with the help of supporting documents and same has been cross checked during onsite audit of the project activity through interviewing the site personnels and GS4GG project webpage.
Since all data has been verified thoroughly, the Assessment Team can ascertain that the description of the project mentioned is in line with GS4GG Principle and Requirements v2.1 /01/.

### 3.1.2 Location of Project

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/, & further with supporting |

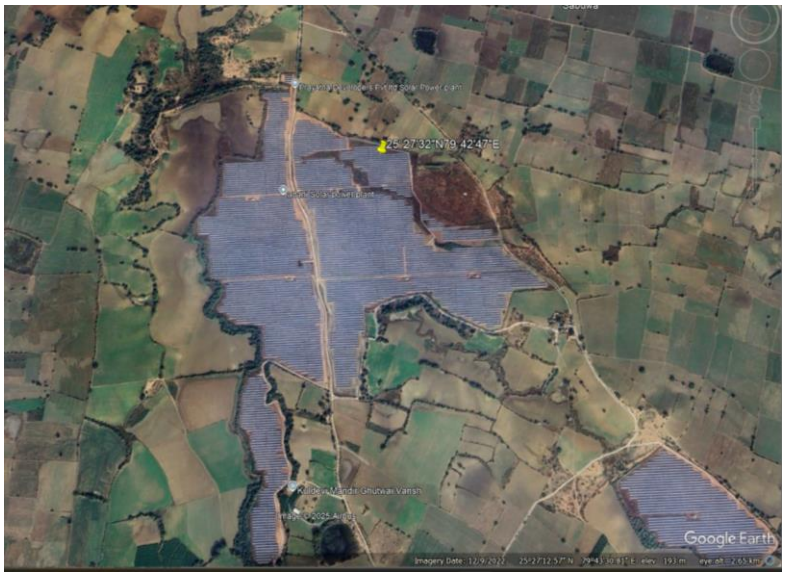
<table>
<tr><td></td><td>documents submitted by the PD and validation report and previous verification report.<br>During the desk review, the assessment team uses Google Earth software /34/ to confirm if the site to be audited is actually installed and reflected at the geo-coordinates defined in the registered PDD /21/.</td></tr>
<tr><td>Findings</td><td>CAR#05 has been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised.</td></tr>
<tr><td>Conclusions</td><td>The assessment team verified the project location mentioned in the Monitoring Report/19/ against the registered project location and found it to be inconsistent with the PDD /21/.<br>Correction during current Monitoring Period<br>During current monitoring period from 01/01/2021 to 15/11/2023 (Inclusive of both dates), it has been observed that the exact location of the project activity as mentioned in the registered GS PDD does not show any Solar project. So, the exact location of the Project Activity has been revised.<br>Updated geocoordinates of the project activity:
<table>
<tr><th>Geo-Coordinates</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>Geo-coordinates mentioned in registered PDD</td><td>25°24'00"N</td><td>79°42'00"E</td></tr>
<tr><td>New Geo-coordinates</td><td>25°27'32"N</td><td>79°42'47"E</td></tr>
</table>


Figure: Location on google earth pro of the new geo-coordinates of the project activity</td></tr>
</table>

| | |
|---|---|
| | The assessment team has reviewed this correction and cross verified the new geo-coordinates through google earth software during desk review and onsite visit/34/ and found correct.<br>The assessment team has further reviewed and confirmed that this correction does not have any impact on any parameter of the project, the applicability of the methodology, additionality or the appropriateness of the baseline scenario established during the validation of the project. Hence, this correction is accepted by the assessment team. |

### 3.1.3 Reference of applied methodology

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/, & further with supporting documents submitted by the PD and validation report and Previous verification report. Applied Methodology: ACM0002 "Grid-connected electricity generation from renewable sources" version 20 /12/. |
| **Findings** | No finding has been raised. |
| **Conclusions** | The verification is conducted in accordance with the registered Project Design Document and the applied methodology- ACM0002 "Grid-connected electricity generation from renewable sources" version 20 /12/. As the data presented in the Monitoring Report is thoroughly verified against the registered PDD /21/, the assessment team confirms that the description of the methodology used in the project is consistent with the GS4GG standards. |

### 3.1.4 Crediting period of Project

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/, & further with supporting documents submitted by the PD and validation report and previous verification report /22/. |
| **Findings** | CL#01 has been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised. |

| | |
|---|---|
| **Conclusions** | The assessment team confirms that this is the first crediting period of the project activity, spanning from 16/11/2018[9] to 15/11/2023, with a total duration of seven years and a twice-renewable crediting period. This has been verified based on the validation report of the crediting period and the information available on the GS4GG webpage. Based on this, it is concluded that crediting period start date and its length is correct and is in line with GS4GG VVS/4/, GS4GG principles and requirements /1/. |

### 3.2 Remaining Issues (FAR(s) from validation or previous verification)

This is second verification of the project activity. There are no FAR(s) from validation or previous verification that need to be closed during this verification. However, two FARs were raised during transition review of this project that was also resolved as detailed below:

**FAR # 1:** As per TRF para 6.1, the transitioning project will be required to demonstrate Ongoing Financial Need as per the relevant GS rules and requirements available at the time of renewal of crediting period.

**RESPONSE:** This is the first crediting period which will end on 15/11/2023. PD will ensure that crediting period renewal is done accordingly and Ongoing Financial Need will be demonstrated as per the relevant GS rules and requirements.

**FAR # 2:** At the time of verification VVB shall check and address double counting and demonstrate that double counting does not exist.

**RESPONSE:** The Declaration for No-Double counting has been submitted to the VVB mentioning that the "The project activity has not applied for any other certification like Green or White certification. Also, a declaration has been made in the MR stating "the project developer will not issue both a CER and a Gold Standard VER for the same vintage from a project that is registered with Gold Standard." VVB has also crosschecked the same through various registries like RECs, IRECs etc independently and found no such situation of double accounting.

### 3.3 Post registration changes

| | |
|---|---|
| **Type of change(s)** | **Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline** |
| **Description of change(s)** | N/A |

[9] 10.2.1 of GHG Emissions Reduction & Sequestration Product Requirements v.2.1 "The start date of Crediting Period is the date of start of operation (start of planting for A/R Projects) or a maximum of two years (three years for A/R & AGR) prior to the date of Project Design Certification, whichever occurs later."

| | |
|---|---|
| **Assessment of change(s)** | N/A |
| **Opinion on change(s)** | N/A |

| **Type of change(s)** | **Corrections** |
|---|---|
| **Description of change(s)** | In the registered PDD, the geocoordinates were incorrectly stated. During the current monitoring period (01/01/2021 to 15/11/2023, both dates included), the project location coordinates have been corrected. The latitude and longitude mentioned under Section A.2 of the MR have been revised to accurately reflect the actual location of the project site. |
| **Assessment of change(s)** | The PD has mentioned the new geocoordinates of the project activity in the section A.2 of the MR.<br><br>**Geo-Coordinates** / **Latitude** / **Longitude**<br>**Geo-coordinates mentioned in registered PDD** / 25°24'00"N / 79°42'00"E<br>**New Geo-coordinates** / 25°27'32"N / 79°42'47"E<br><br>The assessment team has reviewed and cross verified the new geo-coordinates through google earth software during desk review /34/ and onsite visit and found correct. |
| **Opinion on change(s)** | The VVB confirms that this correction relates only to the clarification of the solar project location and does not impact any key parameters, the applicability of the selected methodology, additionality, or the appropriateness of the baseline scenario as established during the validation. Therefore, the change is accepted by assessment team. |

| **Type of change(s)** | **Changes to the start date of the crediting period** |
|---|---|
| **Description of change(s)** | N/A |
| **Assessment of change(s)** | N/A |
| **Opinion on change(s)** | N/A |

| **Type of change(s)** | **Permanent changes from the design Certified registered monitoring plan, applied monitoring methodology or standardized baseline** |
|---|---|
| **Description of change(s)** | N/A |
| **Assessment of change(s)** | N/A |
| **Opinion on change(s)** | N/A |

| Type of change(s) | Changes to the project design of approved project activity |
|---|---|
| Description of change(s) | N/A |
| Assessment of change(s) | N/A |
| Opinion on change(s) | N/A |

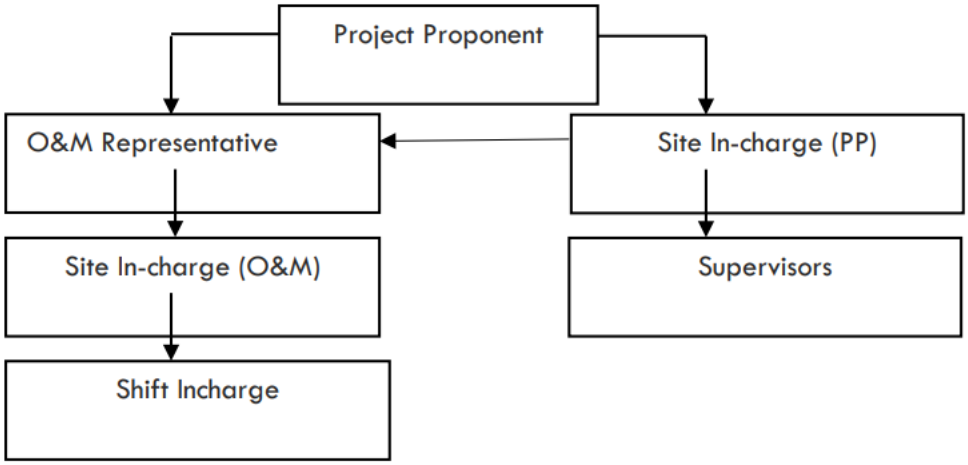
## 3.4 Description of monitoring system applied by the project

### 3.4.1 Compliance of monitoring plan with monitoring methodology

The assessment team confirms that the monitoring plan and the monitoring system implemented are in compliance with the applied monitoring methodology, ACM0002 "Grid- connected electricity generation from renewable sources", Version 20.0 /12/. All other requirements of the applied methodology have been met.

During the verification, all relevant monitoring parameters (as listed in the GS4GG Monitoring Report /19/) have been reviewed with respect to the appropriateness of the applied measurement and determination methods, the correctness of the values used for emission reduction (ER) calculations, and the accuracy of the data.

**The monitoring team is composed of following:**




**Responsibilities of Site In-Charge:** The Site In-Charge is responsible for the overall operation and maintenance of the project activity. This role involves coordination with both the O&M operator and site supervisors to ensure smooth functioning of the site. It is also responsible for recording electricity generation data, managing employee salaries, maintaining SDG 8 records, and handling stakeholder or employee grievances by assigning suitable personnel for resolution.

**Responsibilities of O&M Representative:** The O&M Representative serves as a liaison between the Site In-Charge of the O&M operator and the Project Participant. They are responsible for coordination and reporting to the PD Head Office.

**Responsibilities of Site In-Charge (O&M Operator):** The Site In-Charge from the O&M Operator is responsible for maintaining accurate and complete data records. This includes ensuring data reliability, overseeing the calibration of equipment, and recording all relevant operational parameters.

**Responsibilities of Shift In-Charge:** The Shift In-Charge is responsible for the daily collection and maintenance of monitored data, ensuring consistency and accuracy in day-to-day records.

The responsibilities given in section C of the Monitoring Report /19/ has been verified during the on-site assessment through interview of concerned personnel and found correct.

**Data collection and archiving**

Export and import meter readings are collected under the supervision of authorized PD representatives. Net electricity to the grid is calculated from these readings, which are stored in electronic and/or paper formats. The data is periodically reviewed by the Head of Operations with the O&M team. All records are retained for at least two years after the crediting period or until the final issuance of GS CERs, whichever is later.

**Data Measurement:** Export and import energy are measured continuously using Main and Check meters. Monthly readings are jointly taken by a UPPTCL officer and the Project Developer or their representative, with both parties signing off. Invoices based on these readings help cross-verify the data.

However, the calculation of net electricity supplied to the grid, as well as meter accuracy and calibration, is solely managed by UPPTCL Jhansi. The PD has no control over these aspects. The PD relies on the monthly credit report issued by UPPTCL to obtain net electricity figures used for emission reduction calculations.

**Apportioning:** Mismatch in Monitoring Period and the Billing Period

In case the dates of a particular monitoring period do not match with the dates of the billing period, the net electricity exported to the grid would be calculated from:

Net electricity exported to the grid (D) = (A/B) *C

Where;

A = Difference of number of days which are not matching of billing period and monitoring period.

B = Total number of days of the billing period/month.

C = Net Electricity supplied to the grid for that given billing period/ month.

The calculated value after apportioning would be used for calculation of emission reductions during that period.

The current monitoring period starts from 01/01/2021 to 15/11/2023 (inclusive of both dates). As the monitoring period does not cover the full month of November 2023, an apportioning approach has been applied to estimate the net electricity supplied to the grid during this partial month.

Based on the apportioning procedure:

- **A** (Number of days which are not matching for November): 15
- **B** (Total number of days in November): 30
- **C** (Net electricity supplied to the grid in November as per JMR): 6,536 MWh

The net electricity exported to the grid for the period 01/11/2023 to 15/11/2023 is calculated as:
**D = (A/B) × C**

= (15/30) × 6,536

= 3,268 MWh

**Emergency Preparedness:** The project activity does not pose any risk of substantial unforeseen emissions during current MP; hence, no specific emergency preparedness for data monitoring is deemed necessary. In the rare event of simultaneous failure of all meters at the substation (Main, Check, and Standby), backup readings from meters installed at the project site interconnection point will be used to monitor net electricity exported to the grid.

**Details of training conducted during current Monitoring period**

| S. Number | Month of training | Number of trainings | Number of participants |
|---|---|---|---|
| **1** | May-21 | Awareness on Chemical safety | 6 |
| **2** | July-21 | Incident reporting and investigation | 6 |
| **3** | Jun-22 | Awareness on chemical safety | 6 |
| **4** | Aug-22 | Incident reporting and investigation | 6 |
| **5** | April-23 | Incident reporting and investigation | 8 |
| **6** | May-23 | Awareness on Chemical safety | 7 |

Assessment team has verified all the trainings conducted during current monitoring period with the help of training records provided by PD and also cross verified during onsite visit.

**VVB's Opinion:** The monitoring mechanism is consistent with the applied methodology and is deemed effective and reliable. The monitoring plan outlined in the GS4GG Monitoring Report /19/ aligns with the applied methodology, ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/, as well as the approved standardized baseline referenced in the registered GS4GG

Project Design Document /21/. Based on the onsite audit and desk review of supporting documents submitted by the Project Representative, which describe the current implementation status of the project activity, the VKU assessment team attests to the accuracy and appropriateness of the stated monitoring procedures, data archiving practices, and emergency protocols.

### 3.4.2 Compliance of monitoring activities with the registered Monitoring plan

The assessment team confirms that the monitoring activities and the monitoring system implemented are in full compliance with the applied monitoring methodology, ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/. All other requirements of the applied methodology have also been met. During the verification, all relevant monitoring parameters (as listed in the GS4GG Monitoring Report /19/) have been assessed with respect to the appropriateness of the applied measurement and determination methods, the correctness of the values used for emission reduction (ER) calculations, the accuracy of the data, and the implementation of quality assurance and quality control (QA/QC) measures.

#### 3.4.2.1 Data and Parameters fixed ex-ante or at renewal of crediting period

<table>
<tr><td>Verification Means</td><td>Means: During desk review and Onsite Audit<br>Activity Performed: The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/, applied methodology- ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/ and applicable methodological tools /13/14/</td></tr>
<tr><td>Findings</td><td>CL#03 has been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised.</td></tr>
<tr><td>Conclusions</td><td>Details of ex-ante parameters
<table>
<tr><th>Parameter</th><th>Unit</th><th>Description</th><th>Value</th></tr>
<tr><td>$EF_{grid,OM,y}$</td><td>$tCO_2e/MWh$</td><td>Operating Margin Emission Factor of Indian Grid</td><td>0.9622</td></tr>
<tr><td>$EF_{grid,BM,y}$</td><td>$tCO_2e/MWh$</td><td>Build Margin Emission Factor of Indian Grid</td><td>0.8811</td></tr>
<tr><td>$EF_{grid,CM,y}$</td><td>$tCO_2e/MWh$</td><td>Combined Margin Emission Factor of Indian Grid</td><td>0.9419</td></tr>
</table>
Verification is done in accordance with the registered PDD, applied methodology- ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/ and Tool 7: Tool to</td></tr>
</table>

| | |
|---|---|
| | calculate the emission factor for anelectricity system version 07.0. The values are obtained from the "$CO_2$ Baseline Database for Indian Power Sector" for Indian Power Sector version 15/12/2019 /34/, published by the Central Electricity Authority, Ministry of Power, Government of India as mentioned in MR/19/ and verified as per registered PDD/21/. |

#### 3.4.2.2 Data and Parameters monitored

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/, applied methodology- ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/ and ER sheet /20/ |
| **Findings** | CL#03, CAR#06 have been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised. |
| **Conclusions** | Details of monitored parameter |

| Parameters | Source | Value Applied | Purpose of Data |
|---|---|---|---|
| $EG_{PJ,y}$ | Generation statement provided by UPPTCL Jhansi every month. | 289,877 MWh | The Data/Parameter is required to calculate the baseline emission |
| Quality of employment | Training Records, Salary Slip of the project employees. | 06 trainings | Continuation of regular trainings/workshops for employees & O&M staffs |
| Quantitative employment | Plant employment records | Unskilled: 2<br>Semi-Skilled: 1<br>Skilled: 9 | To monitor the contribution to SDG 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all) |
| Air quality | Calculated as per "Tool to calculate | 273,034 $tCO_2e$ emission reductions | Calculation of baseline emissions |

| | | | |
|---|---|---|---|
| | the emission factor for an electricity system,". The data are obtained from "$CO_2$ Baseline Database for Indian Power Sector" version 15.0, published by the Central Electricity Authority, Ministry of Power, Government of India. | estimated per annum | |

**VVB's Assessment for each monitored parameter:**

**1. For the parameter $EG_{PJ,y}$ (Quantity of net electricity supplied to the grid):** The assessment team reviewed the Invoices of Prayatna Developers Private Limited (PDPL) for supply of power to NTPC from project and JMR. This has been also cross-checked during the onsite audit of the project activity /35/ & further the operation and management team at the site have been interviewed with representatives of the Project Developer /37/. Energy meters of accuracy class 0.2 are used for continuous monitoring which is calibrated once in 5 years as per CEA guidelines. Based on this verification, it is confirmed that a

| | |
|---|---|
| | total of 289,877 MWh electricity has been supplied to the grid from the project activity during current MP.<br>**2. For the parameter Quality of employment (Number of Trainings provided to employees & O&M staff Salary given to the employees of the project.**<br>**All workers are paid daily wages in accordance with the minimum wage rates notified annually by the Department of Labour, Uttar Pradesh.** The assessment team reviewed the training records, employment details, and salary slips /29/. The wage calculation sheet has been also verified and found to accurately reflect the employees' income. This has been also cross-checked during the onsite audit through interviews with the PD's representative and the Operations & Maintenance Team. The income to all the unskilled, skilled and semi-skilled workers is made on day-to day basis as per the Minimum Wages Notification issued by the Uttar Pradesh for the years 2021[10], 2022[11] and 2023[12], this has been verified through the wage calculation sheet /23/ provided by the PD and interviews conducted during the onsite visit/37/. It has been confirmed that the payments are in compliance with the Uttar Pradesh Government.<br>The records have been found to be appropriate and consistent with the reported information.<br>**3. For the parameter Quantitative Employment (Total employment generated due to the implementation of project activity):** Assessment Team has reviewed the employment records, salary slips /29/ provided by the Project Developer and cross-checked the information during the onsite audit through interviews with the PD's representative and the Operations & Maintenance Team and attendance register. The records have been found to be appropriate and consistent with the reported information.<br>**4. For the parameter Air quality (Reduction in $CO_2$ emission reduction due to implementation of project activity):** The parameter related to air quality, specifically the reduction in $CO_2$ emissions resulting from the implementation of the project activity, is calculated |

[10] https://hrinformative.com/minimum-wages-in-uttar-pradesh-april-2021/
[11] https://hrinformative.com/minimum-wages-uttar-pradesh-april-2022/
[12] https://hrinformative.com/minimum-wages-in-uttar-pradesh-april-2023/

| | |
|---|---|
| | in accordance with the "Tool to calculate the emission factor for an electricity system." This methodological approach ensures consistency with international standards for emission reduction assessments.<br>For this project, emission factor data are sourced from the "$CO_2$ Baseline Database for the Indian Power Sector," Version 15.0, published by the Central Electricity Authority (CEA), under the Ministry of Power, Government of India. This database provides credible and nationally recognized emission factors essential for accurate calculations.<br>Monitoring of this parameter is conducted on an annual basis. To ensure the reliability and accuracy of the electricity exported to the grid, a check meter is installed adjacent to the primary export meter. In the event of a malfunction or failure of the export meter, the readings from the check meter serve as a validated fallback for emission reduction calculations.<br>This structured monitoring and data verification framework supports the credibility of the reported $CO_2$ emission reductions and aligns with best practices in project-based environmental assessments. |

#### 3.4.2.3 Implementation of Sampling Plan

This is a solar PV project. Assessment team has verified the 100% data for the project activity and there is no sampling involved in current verification. Therefore, this section is not applicable.

| | |
|---|---|
| **Verification Means** | N/A |
| **Findings** | N/A |
| **Conclusions** | N/A |

### 3.4.3 Compliance with the calibration frequency requirements for measuring instruments

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/ and applied methodology- ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/, Calibration certificate /32/. |
| **Findings** | No finding has been raised. |

| | |
|---|---|
| **Conclusions** | Based on the desk review of project documents and the information obtained during the onsite audit of the project activity, including interviews with site personnel, calibration certificate /32/, the assessment team confirms that monitoring equipment (energy meters) has been used for continuous monitoring and monthly recording.<br>The project activity involves the **installation of 12 energy meters** at the project site and interconnection substations for accurate monitoring of electricity generation and export:<br>(5 main meter and 5 check meters for each 10 MW) at project site (33 KV PDPL Substation) and 2 Energy meters. (1 main meter, 1 check meter) for joint metering at substation interconnection point (132 KV PDPL Substation). These meters at substation end are used for generation of JMRs and Invoices and further ER accounting under this project activity.<br>During the onsite audit, the assessment team physically inspected the installed energy meters. This included verification of the correct installation, condition, and operational status of the meters, ensuring that all equipment is properly functioning and secured against tampering.<br>Operation and Maintenance (O&M) responsibilities are handled by authorized representative of PD. They conduct scheduled maintenance checks and respond promptly to any operational issues. To date, no malfunctions or failures have been reported in the energy meters or associated monitoring systems. The period of storage of the monitored data is 2 years after the end of crediting period or till the last issuance of GS CERs for the project activity whichever occurs later. In case the dates of a particular monitoring period do not match with the dates of the billing period, the net electricity exported to the grid is calculated through apportioning procedure.<br>**Emergency Procedure:** In the unlikely event of simultaneous failure of all main, check, and standby meters installed at the substation, the fallback method involves using meter readings from the project site interconnection point to determine the net electricity exported to the grid. This contingency ensures the continuity and reliability of monitoring. |

| Meter & Calibration Details | | |
|---|---|---|
| **Details** | **MainMeter** | **CheckMeter** |
| 132KV PDPL SUBSTATION | | |
| **Meters S.No.** | 17051284 | 17051285 |
| | 33 KV PDPL SUBSTATION - CHARKHARI | |
| **Meters Sr.No** | 17051287<br>17051292<br>17051294<br>17051295<br>17051296 | 17051286<br>17051288<br>17051290<br>17051293<br>17051298 |
| **Type** | ABT meters | ABT meters |
| **Manufacturer** | L&T Make | L&T Make |
| **Accuracy** | 0.2s | 0.2s |
| **Last Calibration** | 30/03/2017 | 30/03/2017 |
| **Due Date** | 30/03/2022 | 30/03/2022 |
| **Latest Calibration Date** | 05/03/2022 | 05/03/2022 |
| **Due Date of Calibration** | 04/03/2027 | 04/03/2027 |
| **Calibration frequency** | Once in 5 years as per CEA guidelines | |

**Conclusion:**

The monitoring system, including the configuration of energy meters, calibration schedules, maintenance protocols, and data handling procedures, is found to be robust, compliant, and suitable for the accurate measurement of net electricity generation. The project meets the relevant requirements under applicable standards i.e. Gold Standard and CEA regulations, supporting the credibility of emission reduction claims associated with the project activity.

## 3.5 Assessment of data and calculation of emission reductions or net removals

### 3.5.1 Calculation of baseline values or estimation of baseline situation of each SDG Impact

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/ and applied methodology- ACM0002 |

| | |
|---|---|
| | "Grid- connected electricity generation from renewable sources", Version 20 /12/. |
| **Findings** | CL#04 has been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised. |
| **Conclusions** | Verification is done in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results has been recorded consistently as per the approved frequency in the monitoring plan.<br>**Baseline Emissions**<br>**SDG 7 & 13**<br>The baseline emissions for the project activity are restricted to $CO_2$ emissions resulting from the generation of electricity by fossil fuel-fired power plants that are displaced by the renewable electricity generated by the project.<br>In accordance with the applied approved methodology, it is assumed that all electricity generated by the project activity, above the established baseline, would otherwise have been produced by the existing mix of grid-connected power plants, including both:<br>• Existing operational fossil fuel-based generation sources, and<br>• Newly built grid-connected fossil fuel-based power plants added to meet growing demand.<br>The baseline emissions are to be calculated as follows:<br>$BE_y = EF_{grid,CM,y} \times EG_{PJ,y}$<br>Where,<br>$BE_y$ - Baseline emissions in year y, ($tCO_2e/yr$)<br>$EG_{facility,y}$ - Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/yr)<br>$EF_{grid,CM,y}$ - Combined margin $CO_2$ emission factor for grid connected power generation in year y<br><br>$EG_{facility,y} = EG_{y,Export} - EG_{y,Import}$<br><br>BEy = 289,877* 0.9419<br>= 273,034 $tCO_2e$ (Rounded down) |

| | |
|---|---|
| | **Conclusion:**<br>The calculation of baseline emissions is in full compliance with the methodological requirements. The emission factor used is derived from the latest version of the official database published by the Central Electricity Authority (CEA), and the net electricity exported to the grid is accurately determined based on monitored export and import readings. The value **273,034 $tCO_2e$** is a credible and conservative estimate of emissions that would have occurred in the absence of the project activity.<br>**SDG 8**<br>A total of 12 employment opportunities has been created during the current monitoring period. Additionally, 6 training sessions has been conducted as verified through employment and training record.<br>The assessment team confirms that the baseline emissions have been appropriately calculated and are consistent with the onsite assessment /43/, the applied methodology /12/, and the registered Project Design Document /21/. |

### 3.5.2 Calculation of project value or estimation of project situation of each SDG Impact

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/ and applied methodology- ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/. |
| **Findings** | CL#04 has been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised. |
| **Conclusions** | Verification is done in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology/12/, JMRs and invoices /24/, Breakdown details /33/. The monitoring results have been recorded consistently as per the approved frequency in the monitoring plan.<br>**Project Emissions**<br>**SDG 7:** As per the ACM0002 ver-20.0, Project Emission for most renewable energy power generation project activities, PEy = 0. However, some project activities may involve project emissions that |

| | |
|---|---|
| | can be significant. These emissions shall be accounted for as project emissions by using the following equation:<br>PEy = PEFF,y+ PEGP,y+ PEHP,y<br>Where:<br>PEy y = Project emissions in year y ($tCO_2e/yr$)<br>PEFF,y = Project emissions from fossil fuel consumption in year y ($tCO_2/yr$)<br>PEGP,y = Project emissions from the operation of geothermal power plants due to the release of non-condensable gases in year y ($tCO_2e/yr$)<br>PEHP = Project emissions from water reservoirs of hydro power plants in year y ($tCO_2e/yr$).<br>The project activity involves the generation of electricity from the installation of solar power plant. Hence, as per ACM0002, Version 20.0, there is no project emission for solar projects. Therefore, project emissions are zero.<br>Hence PEy= 0<br>The value for affordable and clean energy is the summation of monthly net electricity supplied to the grid. The values are sourced from Monthly Joint Meter Reading records, which can be crosschecked with the invoices/24/. The assessment team has reviewed the invoices and JMRs on a monthly basis and breakdown details/33/ for the current monitoring period and has been cross verified during onsite audit /35/. The summation for current monitoring period is 289,877 MWh.<br>**SDG 8:** The monitoring parameter for the SDG 8 are number of trainings provided to employees & O&M staff and number of people employed in the project activity and equal payment for equal work for staffs involved in the project. During the project scenario, the following is achieved:<br>Quality of employment – 06 Trainings conducted and 48,85,333.44 INR during current monitoring period)<br>Quantity of employment – 12 employees (09 skilled, 1 semi-skilled and 2 unskilled)<br>During the onsite interviews /37/ and by checking the employment records, training records and salary slips /29/, employees currently |

| | |
|---|---|
| | engaged in the project activity has been confirmed. The income to all the workers is made on day-to day basis as per the minimum wages notification yearly issued by Department of Labour Uttar Pradesh.<br>**SDG 13**<br>As per the Section 5.4, Para 31 of the applied Methodology ACM0002 version 20.0, "For most renewable energy power generation project activities, PEy = 0 |

### 3.5.3 Calculation of Leakage

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/ and applied methodology- ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/. |
| **Findings** | No finding has been raised. |
| **Conclusions** | Verification is done in accordance with the registered PDD and applied methodology ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/.<br>Leakage: As per section 5.6 (71) of the applied methodology ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/, leakage does not need to be considered for this project activity as emissions potentially arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g., extraction, processing, transport etc.) are neglected. |

### 3.5.4 Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

| SDG and SDG Impact | Baseline Estimate | Project Estimate | Net Benfit | Conclusion |
|---|---|---|---|---|
| 13 Emission Reduction | 273,034 | 0 | 273,034 | As explained in Section 3.5.2 above, the resulting baseline emissions for the monitoring period amount to 273,034 $tCO_2e$. Similarly, as outlined |
| 7 MWh of renewable energy generated | 0 | 289,877 | 289,877 | |

| | | | | |
|---|---|---|---|---|
| 8 SDG 8: Decent Work and Economic Growth | 0 | 06 Trainings<br><br>12 Employees<br>48,85,333.44 INR | 06 Trainings<br><br>12 Employees<br>48,85,333.44 INR | in Section 3.5.3, project emissions for the monitoring period are zero, and leakage emissions are also considered zero, since the project activity supplies electricity to the grid defined in the applied methodology/12/. The assessment team verified this during the onsite audit /35/.<br><br>Accordingly, the resulting emission reductions for the monitoring period total 273,034 $tCO_2e$.<br><br>The data presented in the Monitoring Report /19/ and the Emission Reduction calculation sheet /20/ have been assessed through a detailed review of the project documentation, evaluation of the collected monitored data, observation of established monitoring and reporting practices, and an assessment of the reliability of the monitoring equipment. Sufficient evidences including the JMR/Invoices /24/, breakdown details /33/ has been provided by the PD and verified by the VVB to support the reported emission reductions as stated above. |

### 3.5.5 Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

| SDG and SDG Impact | Values estimated in ex ante calculation of approved PDD | Actual values achieved during this monitoring period | Conclusion |
|---|---|---|---|
| **SDG 13:** Emission Reduction | 94,209 $tCO_2e$ /Year (365 days)<br>270,754 $tCO_2e$ for the current Monitoring period (1049 days) | 273,034 $tCO_2e$ | Assessment team conducted desk review and an onsite inspection and verified the net electricity generation reported in the ER sheet /20/ and MR/19/ for current monitoring period via JMRs and invoices/24/ raised monthly and breakdown details/33/ of the current monitoring period.<br>Total employment generated and trainings conducted in the current monitoring period has been also verified via employment records of employees and training records/29/ and found to be correct. The assessment has been further verified through interviews and by cross-checking employment and training records during the onsite audit. |
| **SDG 7:** MWh of renewable energy generated | 100,020 MWh/Year (365 days)<br>287,455 MWh for the current Monitoring period (1049 days) | 289,877 MWh | |
| **SDG 8:** Decent Work and Economic Growth | 1 training/year<br>20 Jobs | 06 Trainings<br>12 Employees<br>48,85,333.44 INR | |

### 3.5.6 Remarks on difference from estimate value in registered PDD

| | |
|---|---|
| **Verification Means** | **Means:** During desk review and Onsite Audit<br>**Activity Performed:** The assessment team verified MR /19/, PDD version 5 dated: 10/12/2020 /21/, applied methodology- ACM0002 "Grid- connected electricity generation from renewable sources", Version 20 /12/ and ER Calculation spreadsheet /20/. |
| **Findings** | CL#04, CAR#06 have been raised and closed successfully, please refer Section 06 for detailed analysis of the finding raised. |

<table>
<tr><td>Conclusions</td><td>
Assessment Team conclusion<br>
The ex-ante estimates value of the emission reductions as per the registered PDD /21/, is 94,209 $tCO_2e$/year and calculated as 270,754 $tCO_2e$ for the current MP (1049 days) whereas, the actual emission reductions achieved for the monitoring period is 273,034 $tCO_2e$.<br>
The table below defines the estimated and achieved values of the parameters:
<table>
<tr><th>SDG</th><th>SDG Indicator</th><th>Values Estimated Annual Average</th><th>Values achieved for Current MP</th><th>Unit</th></tr>
<tr><td>SDG 7</td><td>Affordable and Clean Energy</td><td>100,020 MWh/Year</td><td>289,877 MWh</td><td>MWh</td></tr>
<tr><td>SDG 8</td><td>Decent Work and Economic Growth</td><td>1 training/year<br>20 jobs</td><td>06<br>12<br>48,85,333.44</td><td>No of Training<br>No of Employees<br>INR</td></tr>
<tr><td>SDG 13</td><td>Climate Action</td><td>94,209 $tCO_2$ /Year</td><td>273,034 $tCO_2e$</td><td>$tCO_2e$</td></tr>
</table>
The estimated emission reduction to be achieved from the project activity for the current monitoring period is 270,754 $tCO_2e$ whereas actual emission reductions achieved are 273,034 $tCO_2e$, which is 0.84% higher than the estimated emission reductions and is within the sensitivity range.
</td></tr>
</table>

### 3.6 Safeguards Reporting

**Safeguarding Principle 9.5 Hazardous and Non-hazardous Waste**

The project activity involves the generation of both hazardous and non-hazardous waste during its operation phase. As part of its environmental management plan, the project proponent has implemented appropriate waste handling and disposal procedures, ensuring compliance with all applicable local and national regulations.

All waste generated onsite is collected, segregated, and handed over to authorized waste handlers for

safe treatment and disposal. The project entity has confirmed that the entire waste management process aligns with legal requirements and environmental safeguards.

**Source of Verification:**

The waste disposal practices have been verified through a review of plant records, including waste tracking logs, and corroborated by entries in the Health, Safety, and Environment (HSE) logbook maintained at the site. Additionally, discussions with the Operations and Maintenance (O&M) team during the onsite audit further confirmed that all mitigation measures are actively implemented and regularly monitored.

**Conclusion:**

The project demonstrates effective waste management practices and adherence to environmental safeguards related to the generation, handling, and disposal of hazardous and non-hazardous waste. No non-compliance or risk of environmental harm has been identified.

## 3.7 Stakeholder inputs and legal disputes

### 3.7.1 List all Inputs and Grievances which have been received via the Continuous Input and Grievance Mechanism together with their respective responses/mitigations.

During the desk review, the assessment team reviewed the procedures outlined in the Monitoring Report /19/, and during the onsite audit /33/, cross-verified the same through interviews with site personnel and stakeholders /37/. As part of the continual improvement process, the Project Developer has maintained a Grievance Register /30/ at the registered project site office, which is accessible to stakeholders for submitting feedback on the project. The register is placed in a publicly accessible location that facilitates regular access by local stakeholders and enables continuous monitoring. The grievance register is regularly monitored and addressed by Project Developer's team.

During the current monitoring period, no grievances have been received. This has been confirmed through the onsite audit, interviews with site personnel, and review of supporting documentation submitted by the PD, including the grievance register /30/.

### 3.7.2 Report on any stakeholder mitigations that were agreed to be monitored.

During onsite audit Assessment Team verified grievance register /30/ placed on site and conducted personnel interviews of site personals /37/ and concluded that there is no negative feedback logged during the current monitoring period.

### 3.7.3 Details of legal contest that has arisen with the project during the monitoring period

Assessment Team confirms that the given GS4GG project **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** is in compliance with Host country "India" legal environmental, ecological and social regulations as per requirements mentioned in section 7.11 at time of validation for design certification for project activity of validation and verification standard v2.0 /04/ and there is no legal challenge arisen that claims a project is not in compliance with regulation, during certification process.

### 3.8 Quality of evidence to determine emission reductions

As per the verification of ER calculation process, assessment team confirmed that all the parameters required for determination of emission reductions has been included in the Monitoring report Version 04 dated 31/07/2025 /19/ and corresponding ER calculation spread-sheet /20/ are consistent with the applied methodology ACM0002 "Grid- connected electricity generation from renewable sources" Version 20 /12/ and the monitoring plan contained in the registered PDD /21/. The parameters used are completely monitored as per the registered PDD in this monitoring period.

During desk review and onsite audit, assessment team verified the reported ERs with the help of supporting documents and conducted personnel interviews /37/ to check sufficiency of data and its aggregation.

No significant, lack of evidence and missing data have been detected during this verification. Hence, the assessment team confirms that the monitoring plan ensures required management of the monitoring system to ensure the quality of the monitored data. All internal data are subjected to QA/QC measures. The verification process for the same has been clearly described in above section of the report.

### 3.9 Management system and quality assurance

The final verification report passed a technical review and completeness check/ Quality check before being submitted to the client for forward submission to GS.

A technical reviewer qualified in accordance with VKU certification competency form which VKU.F8A. Competency Evaluation of Personnel (Internal Document) for validation and verification of GHG projects performed the technical review.

The comments raised during the technical review stage is thoroughly addressed by the assessment team. After the comments raised during this stage is successfully addressed, the Final verification report undergo VKU's Completeness/Quality Check before issuance.

### 3.10 Verification Assessment

All relevant data were made available to the assessment team by the Project Developer during the onsite audit /35/ and through supporting evidence provided during the verification assessment. These data have been monitored in accordance with the required monitoring frequency. The means of verification

for the parameter values used in the baseline emission calculations are described in the relevant sections of this report.

The assessment team attests to the correctness of the formulas and methodologies applied in the computation of baseline emissions, in accordance with the GS4GG Validation and Verification Standard V2.0 /04/. The default values, emission factors, and assumptions used in the calculations are deemed reasonable and appropriately justified.

**SDG Indicators during this monitoring period 01/01/2021 to 15/11/2023 are:**

**SDG 13:** Actual emission reduction value achieved during the current monitoring period is 273,034 $tCO_2e$ which is 0.84% more than the estimated value of emission reduction mentioned in the registered PDD/17/ i.e., 270,754 $tCO_2e$ (For 1049 days)

**SDG 7:** The total Quantity of net electricity supplied to the grid during current monitoring period is 289,877 MWh.

**SDG 8: This SDG contributed towards:**

**Employment Generated:** A total of 12 jobs were created and maintained during the monitoring period.

**Trainings Conducted:** The project developer has organized 06 training sessions aimed at skill enhancement and operational safety for project personnel.

**Economic Contribution:** The total wage disbursement and related expenditures amounted to INR 48,85,333.44, contributing significantly to the local economy.

This has been verified with the help of salary slips and employment records provided by the PD.

**The verification consisted of the following phases:**

- **Document Review:** Relevant documents, such as the Monitoring report, Previous verification reports, monitoring plan, methodology, GS PDD, QA/QC procedures and supporting documents have been thoroughly reviewed.
- **Onsite Assessment:** This included crosschecking of data, personnel interviews and evaluation of the actual project scenario.
- **Resolution of Discrepancies:** Any non-conformities identified during the assessment have been addressed and resolved.

In this monitoring period, **CAR: Corrective Action Request :03**, **CL: Clarification Request :05** and **FAR Forward Action Request: 00** have been raised during the current monitoring period.

Description of the findings raised is provided in Section 06 of this report.

### 3.11 Verification Opinion

VKU Certification, contracted by Prayatna Developers Pvt. Ltd. has performed the independent verification of the emission reductions for the **GS Project ID 7137 "50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** for the monitoring period **01/01/2021 to 15/11/2023** as reported in the Monitoring Report, Version 04 dated 31/07/2025.

Prayatna Developers Pvt. Ltd. is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity. VKU commenced the verification against the baseline and monitoring methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0 /12/, the monitoring plan contained in the PDD Version 05 dated 10/12/2020 /21/, and Monitoring Report /19/.

VKU Certification confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. This verification report has been prepared using the latest available template specified by GS4GG registry and complies with the instructions to follow as per GS4GG principle and requirements v2.1 /1/ and GS4GG validation and verification standard v2.0 /4/.

The verification activities have been conducted in accordance with VKU Certification's Quality Manual System, VKU Certification's SOP 4 and as per the GS4GG validation and verification standard v2.0 /4/. As a result, it is concluded that the emission reductions from the GS Project Activity **7137 "50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** are correctly reported in the Monitoring Report (final) Version 04 dated 31/07/2025 /19/ and corresponding ER sheet /20/ for the monitoring period **01/01/2021 to 15/11/2023** (including both days) amounted as **273,034 $tCO_2e$**.

VVB opinion on issuance as per the ISO 14064-3, clause 9 which is compliance with GS4GG principles and requirement v2.1 /1/ and GS4GG validation and verification standard v2.0 /4/. The VVB hereby issues a resolutely **positive opinion** thoroughly drafted in strict accordance with ISO 14064-3:2019, 9.2 Section 09 /14/, and the precise provisions of Clause 9.7.1.6 & 9.7.2 of ISO 14065:2020. 9.3 /15/. This opinion stands in full alignment with the exacting requirements delineated in ISO/IEC 17029:2019, Section 9.7. & 9.4 /18/.

Our verification process provides a robust and **reasonable level of assurance** regarding the veracity of the reported GHG emission reduction data. This data has been accounted for 2% materiality as per GS4GG VVS & the data/information is thoroughly supported by the evidence furnished by the Project Developer (PD), comprehensively presented in this report.

| VVB Opinion | Conclusion |
|---|---|
| Positive | ☒(Mark Tick if applicable) |
| Negative | ☐(Mark Tick if applicable) |

## 4. REFERENCE/DOCUMENTS USED IN THE VERIFICATION

| S.NO | AUTHOR | TITLE | REFERENCE TO THE DOCUMENT | PROVIDER |
|---|---|---|---|---|
| 1. | Gold Standard | Principles and Requirements | Version 2.1 and Dated: 31/01/2025 | Gold Standard Website |
| 2. | Gold Standard | Stakeholder consultation and engagement requirements | Version 2.1 and dated: 14/06/2022 | Gold Standard Website |
| 3. | Gold Standard | Safeguarding principles & requirements | Version 2.1 and dated: 29/06/2023 | Gold Standard Website |
| 4. | Gold Standard | Validation and verification standard | Version 2.0 dated: 12/11/2024 | Gold Standard Website |
| 5. | Gold Standard | Site visit and remote audit requirements and procedures | Version 2.0 dated 30/05/2023 | Gold Standard Website |
| 6. | Gold Standard | Applicability of Minimum Site Visit Requirements | Dated 16/08/2021 | Gold Standard Website |
| 7. | Gold Standard | Validation & verification body requirements | Version 3.0 dated: 12/11/2024 | Gold Standard Website |
| 8. | Gold Standard | Community services activity requirements | Version 1.2 dated 24/10/20219 | Gold Standard Website |
| 9. | Gold Standard | Renewable energy activity requirements | Version 1.4 dated 16/08/2021 | Gold Standard Website |
| 10. | Gold Standard | GHG Emissions Reduction & Sequestration Product Requirements | Version 3.1 dated 24/04/2025 | Gold Standard Website |
| 11. | Gold Standard | Gold standard eligible impact quantification methodologies | Version 2.11 dated 16/04.2025 | Gold Standard Website |
| 12. | UNFCCC CDM | ACM0002: Grid-connected electricity generation from renewable sources | Version 20 dated 28/11/2019 | CDM Website |
| 13. | UNFCCC CDM | Methodological Tool 07: Tool to calculate the emission factor for an electricity system | Version 07.0 dated 31/08/2018 | CDM Website |
| 14. | UNFCCC CDM | Methodological Tool 01: Tool for the demonstration and assessment of additionality | Version 7.0.0 dated 23/11/2012 | CDM Website |
| 15. | ISO | ISO 14064-2:2019 - Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and | Dated: 04-2019 | ISO website |

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|---|---|---|---|---|
| | | reporting of greenhouse gas emission reductions or removal enhancements | | |
| 16. | ISO | ISO 14064-3:2019: Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements | Dated: 04-2019 | ISO website |
| 17. | ISO | ISO 14065:2020: General principles and requirements for bodies validating and verifying environmental information | Dated: 12-2020 | ISO website |
| 18. | ISO | ISO/IEC 17029:2019: Conformity assessment — General principles and requirements for validation and verification bodies | Dated: 10-2019 | ISO website |
| **Supporting/Reference Documents** | | | | |
| 19. | Prayatna Developers Pvt. Ltd. | Monitoring Report | • Version 01 dated 24/03/2025<br>• Version 02 dated 16/06/2025<br>• Version 03 dated 15/07/2025<br>• Version 04 dated 31/07/2025 | Prayatna Developers Pvt. Ltd. |
| 20. | Prayatna Developers Pvt. Ltd. | ER Sheet | • Version 01 dated 24/03/2025<br>• Version 02 dated 16/06/2025<br>• Version 03 dated 15/07/2025 | Prayatna Developers Pvt. Ltd. |
| 21. | Gold Standard | Registered GS PDD | Version 5.0 dated 10/12/2020 | Gold Standard Website |
| 22. | Gold Standard | **Last Verifications**<br>• Monitoring Report<br>• Verification Report | • Version 06 dated 15/06/2022<br>• Version 07 dated 08/07/2022 | Gold Standard Website |
| 23. | Prayatna Developers Pvt. Ltd. | SDG Impact Tool and Wage calculation sheet | N/A | Prayatna Developers Pvt. Ltd. |
| 24. | National Thermal Power Corporation Limited | JMR/Invoices | N/A | Prayatna Developers Pvt. Ltd. |

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|---|---|---|---|---|
| 25. | Government of National Capital Territory of Delhi | Power Purchase Agreement | N/A | Prayatna Developers Pvt. Ltd. |
| 26. | Prayatna Developers Pvt. Ltd. | Commissioning Certificate | N/A | Prayatna Developers Pvt. Ltd. |
| 27. | Prayatna Developers Pvt. Ltd. | Technical Specification of Solar PV modules | N/A | Prayatna Developers Pvt. Ltd. |
| 28. | Prayatna Developers Pvt. Ltd. | SLD | N/A | Prayatna Developers Pvt. Ltd. |
| 29. | Prayatna Developers Pvt. Ltd. | Employment Records/ Training Records/Salary slips | N/A | Prayatna Developers Pvt. Ltd. |
| 30. | Prayatna Developers Pvt. Ltd. | Grievance Register | N/A | Prayatna Developers Pvt. Ltd. |
| 31. | Prayatna Developers Pvt. Ltd. | No Double Counting Declaration Letter | N/A | Prayatna Developers Pvt. Ltd. |
| 32. | Prayatna Developers Pvt. Ltd. | Calibration Certificate | N/A | Prayatna Developers Pvt. Ltd. |
| 33. | Prayatna Developers Pvt. Ltd. | Breakdown details for current MP | N/A | Prayatna Developers Pvt. Ltd. |
| 34. | Central Electricity Authority | $CO_2$ Baseline Database for Indian Power Sector | Version 15 | Central Electricity Authority website |
| **VVB Documents used during Current Verification** | | | | |
| 35. | NA | Onsite Audit Pictures | Date: 11/04/2025 | NA |
| 36. | NA | Google Earth Software | NA | NA |
| 37. | VKU Certification | Focussed group discussion with PD representative & stakeholders during onsite visit | Date: 11/04/2025 | VKU Certification |
| 38. | VKU Certification | VKU.F64W.Field Assessment Checklist for Onsite Audit | Date: 11/04/2025 | VKU Certification |
| 39. | VKU Certification | VKU.F46W. Attendance Sheet of audit | Date: 11/04/2025 | VKU Certification |
| 40. | VKU Certification | VKU.F56W. Risk Assessment | NA | VKU Certification |

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|---|---|---|---|---|
| 41. | VKU Certification | VKU.F24W. Audit Plan | NA | VKU Certification |
| 42. | VKU Certification | VKU.F72W. Evidence Gathering Plan | NA | VKU Certification |

## 5. Certification Statement

VKU Certification Private Limited (VKU Certification), contracted by Prayatna Developers Pvt. Ltd., has performed the independent verification of the emission reductions for the GS4GG project activity 7137 **"50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** in India for the monitoring period 01/01/2021 to 15/11/2023 as reported in the Monitoring Report Version 04 dated 31/07/2025. The Prayatna Developers Pvt. Ltd., is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity

VKU Certification commenced the verification on the basis of the baseline and monitoring methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0, the monitoring plan contained in the PDD Version 05 dated 10/12/2025, Monitoring Report (final) version 04 dated 31/07/2025 as per the methodology described under Section 2 of this report.

VKU Certification's verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. VKU Certification planned and performed the verification by obtaining evidence and other information and explanations that VKU Certification considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In our opinion the GHG emissions reductions reported for the project activity for the period 01/01/2021 to 15/11/2023 are fairly stated in the Monitoring Report (final) version 04 dated 31/07/2025. The GHG emission reductions have been calculated correctly on the basis of the approved baseline and monitoring methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0, and the monitoring plan contained in the PDD Version 05 dated 10/12/2025.

VKU Certification Private Limited is able to certify that the emission reductions from the GS4GG project activity **7137 "50 MW Mahoba Solar PV Power Project by M/s Prayatna Developers Pvt. Ltd. at Mahoba, UP"** in Indi during the period 01/01/2021 to 15/11/2023 (including both days) amount to 273,034 $tCO_2e$.

**Verified and certified emission reductions as per commitment period:**

| Commitment period | Amount |
|---|---|
| From 01/01/2021 to 31/12/2021 (Inclusive of both days) | 96,559 $tCO_2e$ |
| From 01/01/2022 to 31/12/2022 (Inclusive of both days) | 96,334 $tCO_2e$ |
| From 01/01/2023 to 15/11/2023 (Inclusive of both days) | 80,141 $tCO_2e$ |
| **Total MP from 01/01/2021 to 15/11/2023 (Inclusive of both days)** | **273,034 $tCO_2e$** |

VIKAS KUMAR AHARWAL

Digitally signed by VIKAS KUMAR AHARWAL
Date: 2025.08.07 12:14:28 +05'30'

**Dr Vikas Kumar Aharwal** *07/08/2025*

**Founder and Director** Indore, India

VKU Certification Private Limited

## 6. VERIFICATION FINDINGS (CAR/CL/FAR)

### SUMMARY OF FINDINGS

| **Finding No. 01** | Date: 28/04/2025 |
|---|---|
| **Finding Type-** CAR ☐ CL ☒ FAR ☐☐ | |
| **Stage of finding raised:**<br>Desk Review ☒<br>On-site/remote/hybrid assessment ☒<br>Technical Review ☐<br>Project Review Report by Registry ☐ | |
| **Requirement** | |
| ▪ GS4GG Principles and Requirements, Version 2.1<br>▪ GS4GG Validation and Verification Standard, Version 2.0 | |
| **Non-Conformity** | |
| PD has not provided enough supporting documents to support the information and data presented in the Monitoring Report, version 1.0 dated 24-March-2025 | |
| **Evidence** | |
| **Key Project Information**<br>1. During the desk review of the MR, the Assessment team observed that PD has not provided any supporting document to confirm the date of project design certification.<br><br>**Table 1**<br>1. The PD has not provided the SDG Impact Tool to verify the values given in Table 1 of the MR.<br>2. The PD has not provided any evidence to verify the number of employment opportunities generated under the project activity or the number of training sessions organized.<br>3. During site visit it has been observed by TL that the number of trainings conducted and employees listed are more than the reported value, kindly clarify and provide the supporting evidence for same.<br><br>**Section A.4**<br>1. The Assessment team is unable to trace any evidence to verify the statement mentioned in section A.4 of the MR- '*The project will/has not issue both a CER/other compliance unit under Paris Agreement and GS VER for the same vintage.*' | |
| **1st Response from PD** | Date: 16/06/2025 |
| **Key Project Information**<br>1. Supporting documents submitted.<br>**Table 1**<br>1. The PD has revised and submitted the SDG Impact Tool, and the values are now consistent with Table 1 of the MR. | |

2. The PD is submitting employment details and training records as evidence to verify the number of job opportunities generated and sessions conducted under the project activity.
3. The PD is submitting supporting documents for the number of trainings conducted and employees engaged, as observed during the site visit.

**Section A.4**

1. The PD is submitting a self-declaration stating that the project will/has not issued both a CER/other compliance unit under the Paris Agreement and GS VER for the same vintage, as mentioned in Section A.4 of the MR.

**Documents provided by PD for review**

1. Revised MR
2. SDG impact tool
3. Training records

| **1st Review by Assessment Team** | Date: 18/06/2025 |
|---|---|

**Key Project Information**

1. Assessment team confirms that PD has not provided supporting document to confirm the date of project design certification. Hence, finding is open.

**Table 1**

1. PD has submitted SDG Impact Tool to the assessment team to verify the table 1 values in the MR but some corrections are required in the SDG impact tool which have been commented. Hence, fining is open.
2. Assessment team confirms that PD has not provided any evidence to verify the number of employment opportunities generated under the project activity or the number of training sessions organized. Hence, fining is open.
3. PD has not provided supporting document to confirm the number of trainings conducted and employees engaged in this project activity. Hence, finding is open.

**Section A.4**

1. PD has not provided supporting document to the assessment team. Hence, finding is open.

**Finding #01 is OPEN**

| **2nd Response from PD** | Date: 14/07/2025 |
|---|---|

1. PD has submitted the supporting document to confirm the date of project design certification.

2. PD has submitted the corrected SDG Impact Tool, and the Table 1 values in the MR have been revised accordingly.
3. The relevant supporting documents for both employment generation and training sessions have been submitted
4. The PD has submitted supporting documents for the number of trainings conducted, and the revised MR has been updated accordingly.
5. PD has submitted supporting document to the assessment team.

**Documents provided by PD for review**

1. Employment details
2. SDG impact tool
3. Training details

| **2nd Review by Assessment Team** | Date: 23/07/2025 |
|---|---|

**Key Project Information**

1. Assessment team confirms that PD has provided supporting document to confirm the date of project design certification. Hence, finding is closed.

**Table 1**

1. Assessment team confirms that PD has updated SDG Impact tool and found correct. Hence finding is closed.
2. Assessment team confirms that PD has provided employment record and training record to verify the employment generated by the project activity. Hence, finding is closed.
3. PD has submitted supporting documents to verify employee involved and the training activities conducted during the current monitoring period. Hence, finding is closed.

**Section A.4**

1. Assessment team confirms that PD has provided No double counting declaration letter stating that the project will/has not issued both a CER and GS VER for the same vintage. Hence, finding is closed.

**Hence Finding #01 Closed**

| **Finding No. 02** | Date: 28/04/2025 |
|---|---|
| **Finding Type-** CAR ☐ CL ☒ FAR ☐☐ | |
| **Stage of finding raised:** | |
| Desk Review | ☒ |
| On-site/remote/hybrid assessment | ☒ |
| Technical Review | ☐ |
| Project Review Report by Registry | ☐ |

**Requirement**

- GS4GG Principles and Requirements, Version 2.1
- GS4GG Validation and Verification Standard, Version 2.0
- GS4GG Monitoring Template Guide, Version 1.1

**Non-Conformity**

PD has not provided enough supporting documents to support the information and data presented in the Monitoring Report, version 1.0 dated 24-March-2025

**Evidence**

**Section B.1**

1. During site visit TL identified that the number of modules implemented at site and the number of modules listed in MR does not match and slightly exceeds the total DC capacity of the plant site although the AC capacity remains unaffected, how is this justified?

2. The PD has not provided any supporting document to verify the technical specification of Solar PV modules, invertors, transformers and meter equipment used in the project activity.

**Section C**

1. The Assessment Team is unable to understand the role of the CDM team mentioned in this report and whether it is part of the project developer's team or operating as a separate entity.
2. The Assessment team is unable to trace any evidence pertaining to the training provided to the plant helpers.

| **1st Response from PD** | Date: 16/06/2025 |
|---|---|

**Section B.1**

1. The number of modules at site is as per the registered PDD, which is being submitted as evidence.
2. The PD is submitting supporting documents to verify the technical specifications of Solar PV modules, inverters, transformers, and meter equipment used in the project activity.

**Section C**

3. Corrected in Section C of the Monitoring Report
4. The PD is submitting training records and attendance sheets as evidence

**Documents provided by PD for review**

1. Training records

| **1st Review by Assessment Team** | Date: 18/06/2025 |
|---|---|

**Section B.1**

1. PD has not submitted evidence to the assessment team. Hence, finding is open.
2. Assessment team confirms that PD has not provided supporting documents to confirm the technical details of Solar PV modules, inverters, transformers, and meter equipment used in the project activity. Hence, finding is open.

**Section C**

1. Assessment team confirms that PD has corrected section C in the revised MR. Hence, finding is closed.
2. The PD has not provided the training records or attendance sheet to the assessment team as evidence that plant helpers have received training. Hence, finding is open.

**Finding #02 is OPEN**

| **2nd Response from PD** | Date: 15/07/2025 |
|---|---|

**Section B.1**

1. PD has been submitted supporting documents for evidence to the assessment team
2. The PD has submitted the supporting documents confirming the technical details of the Solar PV modules, inverters, transformers, and meter equipment. These details have also been updated in the revised Monitoring Report. The same can be cross-verified with the approved MR.

**Section C**

1. The PD has corrected Section C in the revised Monitoring Report.

2. The PD has submitted supporting documents for the training records and attendance sheets as evidence

**Documents provided by PD for review**

1. Approved MR
2. Training records

| 2nd Review by Assessment Team | Date: 23/07/2025 |
|---|---|

**Section B.1**

1. Assessment team confirms that PD has provided PDD and found the number of modules implemented at site consistent with MR. Hence, finding is closed.
2. Assessment team confirms the technical details with the registered PDD and found correct. Hence, finding is closed.

**Section C**

1. Assessment team confirms that PD has provided the training records. Hence, finding is closed.

**Hence Finding #02 Closed**

| **Finding No. 03** | Date: 28/04/2025 |
|---|---|
| **Finding Type-** CAR ☐ CL ☒ FAR ☐☐ | |

**Stage of finding raised:**

| | |
|---|---|
| Desk Review | ☒ |
| On-site/remote/hybrid assessment | ☒ |
| Technical Review | ☐ |
| Project Review Report by Registry | ☐ |

**Requirement**

- GS4GG Principles and Requirements, Version 2.1
- GS4GG Validation and Verification Standard, Version 2.0
- ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0

**Non-Conformity**

PD has not provided enough supporting documents to support the information and data presented in the Monitoring Report, version 1.0 dated 24-March-2025.

**Evidence**

**Section D.1**

1. The reference mentioned for CEA database for the parameter $\mathbf{EF_{OM,y}}$ **,** $\mathbf{EF_{BM,y}}$ **and** $\mathbf{EF_{CM,y}}$ is not a direct link to the database.

**Section D.2**

1. It is unclear to the AT what specific information has been provided regarding the main meter, check meter, and stand meter as mentioned in the Measurement methods and procedure for the parameter $\mathbf{EG_{facility,y}}$
2. The Assessment Team is unable to trace the salary slip of male and female earning employees and the evidence for the trainings provided.
3. The Assessment Team is unable to trace the plant employment records mentioned as the source of data for parameter **Quality of employment**.

4. It is unclear to the Assessment team: Why the value of emissions mentioned for the parameter **Air Quality** has been labelled as 'estimated' and whether the emissions are being calculated on 'per annum' basis?

| **1st Response from PD** | Date: 16/06/2025 |
|---|---|

**Section D.1**

1. The reference links have been revised in the MR to directly refer to the relevant CEA database.

**Section D.2**

1. The PD has updated the details of the main, check, and stand-by meters in Section C of the MR.
2. The PD is submitting salary slips of employees along with supporting documents.
3. The PD is submitting plant employment records as supporting evidence for the parameter 'Quality of employment'.
4. The MR has been updated to clarify that the air quality emissions are calculated annually, and 'estimated' refers to values derived using standard emission factors.

**Documents provided by PD for review**

1. Revised MR
2. Salary slips
3. Employment records

| **1st Review by Assessment Team** | Date: 18/06/2025 |
|---|---|

**Section D.1**

1. PD has corrected and the link is now accessible to the assessment team. Hence, finding is closed.

**Section D.2**

1. Assessment team confirms that PD has updated details of the meters and also mentioned in section C of the revised MR. Hence, finding is closed.
2. Assessment team confirms that PD has not provided salary slips of male and female earning employees in this project activity. Hence, finding is open.
3. Assessment team confirms that PD has not provided employment record to confirm the parameter "Quality of employment". Hence, finding is open.
4. Assessment team has reviewed the response and found that the values should come relevant to current monitoring period, hence that needs to be added and not the estimated value. Hence, finding is open.

**Finding #03 is OPEN**

| **2nd Response from PD** | Date: 15/07/2025 |
|---|---|

**Section D.2**

2. The PD has now submitted the salary slips of male and there are no female employees working at the project site for verification.

3. Employment records documents for the parameter "Quality of Employment" have been submitted and are updated in the revised MR.

4. The PD has updated on revised MR of the values relevant to the current monitoring period, as per the assessment team's observation.

**Documents provided by PD for review**

| | |
|---|---|
| Salary Slip<br>Revised MR | |
| **2nd Review by Assessment Team** | Date: 23/07/2025 |
| **Section D.2**<br>2. Assessment team confirms that PD has submitted sample of salary slips to confirm the earning of the employees in the project activity. Hence, finding is closed.<br>3. PD has provided employment record to the assessment team to confirm the parameter "Quality of employment. Hence, finding is closed.<br>4. PD has updated the estimated mentioned in this section of the revised MR. Hence, finding is closed.<br><br>**Hence Finding #03 Closed** | |

| | |
|---|---|
| **Finding No. 04** | Date: 28/04/2025 |
| **Finding Type-** CAR ☐ CL ☒ FAR ☐☐ | |
| **Stage of finding raised:**<br>Desk Review ☒<br>On-site/remote/hybrid assessment ☒<br>Technical Review ☐<br>Project Review Report by Registry ☐ | |
| **Requirement** | |
| ▪ GS4GG Principles and Requirements, Version 2.1<br>▪ GS4GG Validation and Verification Standard, Version 2.0<br>▪ GS Monitoring Template Guide version 1.0.<br>▪ ACM0002: Grid-connected electricity generation from renewable sources - Version 20.0 | |
| **Non-Conformity** | |
| PD has not provided enough supporting documents to support the information and data presented in the Monitoring Report, version 1.0 dated 24-March-2025. | |
| **Evidence** | |
| **Section E.1**<br>1. The PD has not mentioned baseline value for each SDG as required by GS Monitoring Template Guide version 1.1.<br>2. The data/parameter **EGPJ,y** is replaced with data/parameter **EGfacility,y** in the calculation of Baseline emission **BEy**. The relationship between these two parameters is unclear to the Assessment Team.<br><br>**Section E.2**<br>1. The Assessment Team is unable to trace any evidence to verify the total number of trainings provided by the PD to the employees and O&M staff and the Cost spent for O&M & Number of O&M staffs involved in the project. | |

2. The PD has not provided any calculations for SDG 13 as per the requirements of section E.2 of the GS MR template Guide version 1.1

**Section E.6**

1. PD has not filled the information in section E.6 of the MR as per the requirement of the section mentioned in MR Template Guide v1.1

**Section G.1**

1. During site visit some grievances have been found at the site, kindly justify the statement.

| **1st Response from PD** | Date: 16/06/2025 |
|---|---|

**Section E.1**

1. The PD has revised the MR to include baseline values for each SDG, in line with the requirements of the GS Monitoring Template Guide version 1.1.
2. The MR has been revised to clarify the calculation.

**Section E.2**

1. The MR has been revised, and the PD is submitting evidence for trainings conducted, O&M cost, and number of O&M staff involved.
2. Section E.2 has been updated with the required SDG 13 calculations as per the GS guidelines.

**Section E.6**

1. The MR has been revised, and the information has been added in Section E.6 as per the MR Template Guide v1.1.

**Section G.1**

1. The supporting documents are being submitted by the PD.

**Documents provided by PD for review**

1. Revised MR

| **1st Review by Assessment Team** | Date: 18/06/2025 |
|---|---|

**Section E.1**

1. Assessment team confirms that PD has updated section E.1 and mentioned baseline values. Hence, finding is closed.
2. Assessment team confirms that PD has corrected data/parameter $EG_{PJ,y}$ in the baseline emission calculation. Hence, finding is closed.

**Section E.2**

1. PD has not provided evidence to confirm the total number of trainings provided by the PD to the employees and O&M staff and the Cost spent for O&M & Number of O&M staffs involved in the project. Hence, finding is open.
2. PD has updated section E.2 in the revised MR and found consistent with the MR template guide v1.1. Hence, finding is closed.

**Section E.6**

1. Assessment team confirms that PD has updated section E.6 of the revised MR and is now consistent with the MR Template guide v1.1. Hence, finding is closed.

**Section G.1**

1. PD has not provided supporting documents to the assessment team. Hence, finding is open.

**Finding #04 is OPEN**

| **2nd Response from PD** | Date: 15/07/2025 |
|---|---|

**Section E.2**

1. The PD has submitted the supporting documents confirming the total number of trainings provided to employees and O&M staff, the cost incurred for O&M activities, and the number of O&M staff involved in the project. These details have also been updated in the revised Monitoring Report.

**Section G.1**

1. PD has submitted supporting documents to the assessment team

**Documents provided by PD for review**

Employment details

| **2nd Review by Assessment Team** | Date: 23/07/2025 |
|---|---|

**Section E.2**

1. The PD has provided the training and employment records to the assessment team, and the corresponding numbers have been verified as correct in the revised MR. Hence, finding is closed.

**Section G.1**

1. PD has provided the grievance register to the assessment team for verification, and no grievances were found recorded during the review. Hence, finding is closed.

**Hence Finding #04 Closed**

| **Finding No. 05** | Date: 28/04/2025 |
|---|---|

**Finding Type-** CAR ☒ CL ☐ FAR ☐

**Stage of finding raised:**

| | |
|---|---|
| Desk Review | ☒ |
| On-site/remote/hybrid assessment | ☐ |
| Technical Review | ☐ |
| Project Review Report by Registry | ☐ |

**Requirement**

- GS4GG Principles and Requirements, Version 2.1
- GS4GG Validation and Verification Standard, Version 2.0
- GS4GG Monitoring Template Guide, Version 1.1

**Non-Conformity**

Inconsistencies have been observed by the VVB in the formatting and some information seems to be missing in MR version 01, dated 24-March-2025 w.r.t the MR Template Guide v.1.1 and registered PDD.

**Evidence**

**Key Project Information**

1. The font colour of the information mentioned in this table and in various sections throughout this report have been altered, leading to a discrepancy with point 13 of the 'Guide to Completing Monitoring Report' of Monitoring Report Template Guide version 1.1.

**Table 1**

1. The formatting of table is inconsistent with the MR template guide version 1.1
2. The unit mentioned for SDG 7 is inconsistent throughout the MR.

**Section A.2**

1. The project location has not been demonstrated in accordance with the requirements outlined in the MR template guide, specifically incorporated location details are incomplete, as the project name, project ID, scale, and GPS grid have not been included.

**Section A.3**

1. During desk review of the MR, the Assessment team observed that the PD has not provided any reference for the applied tool- Tool to calculate the emission factor for an electricity system version 7.0.

**Section A.4**

1. The crediting period date mentioned in section A.4 of the MR is inconsistent with the one mentioned on the project webpage.
2. The length of the crediting period mentioned in the MR is inconsistent with the registered GS PDD.

**Section B.1**

1. The PD has not mentioned the information on the implementation and actual operation of the project including relevant dates and the status of implementation and start date of operation for each site as per the requirements of MR template Guide version 1.1.

| **1st Response from PD** | Date: 16/06/2025 |
|---|---|

**Key Project Information**

1. Font colour discrepancies have been corrected in the revised MR as per the requirements of the Template Guide v1.1.
3. Table 1 The MR has been revised to correct the table formatting as per the MR Template Guide version 1.1.
4. SDG 7 has been corrected in the revised MR.

**Section A.2**

1. Project location details have been updated in the revised MR in line with the MR Template Guide.

**Section A.3**

1. Reference for the applied tool (version 7.0) has been added in the revised MR.

**Section A.4**

1. The MR has been revised the crediting period date in Section A.4 with the date mentioned on the project webpage.

2. The MR has been revised to correct the crediting period length in line with the registered GS PDD. The project was initially registered under CDM with a fixed 10-year crediting period. As part of the transition to the Gold Standard, the crediting period has been revised to a 5-year renewable period, renewable twice, totalling 15 years. All required documentation related to the transition from CDM to GS has been submitted as per the applicable guidelines.

**Section B.1**

1. The MR has been updated the implementation and operational details for all sites, in accordance with Template Guide v1.1.

**Documents provided by PD for review**

1. Revised MR

| **1st Review by Assessment Team** | Date: 18/06/2025 |
|---|---|

**Key Project Information**

1. The assessment team confirms that the PD has not corrected the font color throughout the revised MR. Hence, finding is open.

**Table 1**

1. Assessment team confirms that PD has corrected formatting of the table and is now consistent with MR template guide v1.1. Hence, finding is closed.
2. Assessment team confirms that PD has corrected unit for SDG 7 in revised MR. Hence, finding is closed.

**Section A.2**

1. The project location still remains inconsistent with MR template guide in revised MR. Hence, finding is open.

**Section A.3**

1. Assessment team confirms that PD has not provided reference for the applied tool- Tool to calculate the emission factor for an electricity system version 7.0 in revised MR. Hence, finding is open.

**Section A.4**

1. The crediting period date is still inconsistent with the project webpage. Hence, finding is open.
2. Assessment team confirms that PD has provided the required justification for the length of crediting period and acceptable to the assessment team. Hence, finding is closed.

**Section B.1**

1. Assessment team confirms that PD has updated section B.1 of the revised MR and mentioned the start date and implementation status as per MR template guide v1.1. Hence, finding is closed.

**Finding #05 is OPEN**

| **2nd Response from PD** | Date: 15/07/2025 |
|---|---|

**Key Project Information**

1. The PD has corrected the font colour throughout the revised Monitoring Report as per the template guidelines.

**Section A.2**

1. The project location has been updated in line with the MR template guide.

**Section A.3**

1. The PD has now included the reference for the applied tool: *Tool to calculate the emission factor for an electricity system, Version 7.0* in the revised Monitoring Report.

**Section A.4**

1. The crediting period date has been aligned with the project webpage and corrected in the revised MR.

| **Documents provided by PD for review** | |
|---|---|
| Revised MR | |
| **2nd Review by Assessment Team** | Date: 23/07/2025 |

**Key Project Information**

1. PD has corrected the font colour in the revised MR. Hence, finding is closed.

**Section A.2**

1. PD has corrected the project location, which is now consistent with the MR template guide in the revised MR. Hence, finding is closed.

**Section A.3**

1. Assessment team confirms that PD has mentioned reference for the applied tool- Tool to calculate the emission factor for an electricity system version 7.0 in revised MR. Hence, finding is closed.

**Section A.4**

1. PD has updated crediting period date and found consistent with the project webpage in the revised MR. Hence, finding is closed.

**Hence Finding #05 Closed**

| **Finding No. 06** | Date: 28/04/2025 |
|---|---|
| **Finding Type-** CAR ☒ CL ☐ FAR ☐☐ | |
| **Stage of finding raised:** | |
| Desk Review | ☒ |
| On-site/remote/hybrid assessment | ☒ |
| Technical Review | ☐ |
| Project Review Report by Registry | ☐ |
| **Requirement** | |

- GS4GG Principles and Requirements, Version 2.1
- GS4GG Validation and Verification Standard, Version 2.0
- GS4GG Monitoring Template Guide, Version 1.1

**Non-Conformity**

Inconsistencies have been observed by the VVB in the formatting and some information seems to be missing in MR version 01, dated 24-March-2025 w.r.t the MR Template Guide v.1.1 and registered PDD.

**Evidence**

**Section C**

1. The PD has not mentioned all the required information in the section including the location of meters and substation.
2. During site visit it was observed that there are minor breakdowns that happened during the reported period and they need to be provided in listed format and their details need to be demonstrated in this report as applicable.

**Section D.2**

1. The description of SDG indicator mentioned for all the monitored parameters is inconsistent with the '*Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development*'.
2. The parameter $\mathbf{EG_{facility,y}}$ mentioned as the monitored parameter in section D.2 of the MR is inconsistent with the registered GS PDD.
3. The name of the manufacturer mentioned in measurement methods and procedure for parameter $\mathbf{EG_{facility,y}}$ and its monitoring frequency is inconsistent with the registered PDD.
4. The parameter Quality of employment mentioned in section D.2 of the MR is inconsistent with the registered GS PDD.

**Section E.6**

1. PD has not filled the information as per the requirement of the section mentioned in MR Template Guide v1.1- "State whether the actual SDG Impacts achieved is greater than the amount based on the ex-ante estimation in the Design Certified PDD. If so, explain the cause of any increase in the actual Impacts achieved by the project activity during this monitoring period".

| **1st Response from PD** | Date: 16/06/2025 |
|---|---|

**Section C**

1. The MR has revised to include all the required information, including the location of meters and substation.
2. Details of breakdowns during the reporting period have been added in listed format in the revised MR.

**Section D.2**

1. The SDG indicators have been corrected in the revised MR to align with the Global Indicator Framework"
2. EGfacility,y has been aligned with the registered GS PDD in the revised MR.
3. The manufacturer's name and monitoring frequency for the parameter EGfacility,y updated in the revised MR to align with the registered PDD.
4. The parameter 'Quality of employment' in Section D.2 has been updated in the revised MR to with the registered GS PDD.

| | |
|---|---|
| **Section E.6**<br>1. The comparison between actual and ex-ante SDG impacts, along with the reason for any increase, has been provided in the revised MR as per the MR Template Guide v1.1. | |
| **Documents provided by PD for review** | |
| 1. Breakdown details<br>2. Revised MR | |
| **1st Review by Assessment Team** | Date: 18/06/2025 |
| **Section C**<br>1. PD has updated section C and mentioned meter details in revised MR. Hence, finding is closed.<br>2. Assessment team confirms that PD has not mentioned breakdown details in revised MR. Hence, finding is open.<br><br>**Section D.2**<br>1. PD has corrected description of SDG indicator in section D.2 of the revised MR. Hence, finding is closed.<br>2. Assessment team confirms that PD has corrected parameter $\mathbf{EG_{facility,y}}$ in section D.2 of the revised MR. Hence, finding is closed.<br>3. PD has corrected measurement methods and procedure for parameter $\mathbf{EG_{facility,y}}$ and its monitoring frequency and found consistent with registered PDD. Hence, finding is closed.<br>4. PD has corrected parameter Quality of employment mentioned in section D.2 of the revised MR. Hence, finding is closed.<br><br>**Section E.6**<br>1. PD has updated section E.6 and is now consistent with the MR template guide v1.1. Hence, finding is closed.<br><br>**Finding #06 is OPEN** | |
| **2nd Response from PD** | Date: 15/07/2025 |
| 1. The PD has provided the breakdown details in the revised Monitoring Report Appendix 1. | |
| **Documents provided by PD for review** | |
| Revised MR | |
| **2nd Review by Assessment Team** | Date: 23/07/2025 |
| **Section C**<br>1. Assessment team confirms that PD has provided breakdown details in appendix 1 of the revised MR. Hence, finding is closed.<br><br>**Hence Finding #06 Closed** | |

| | |
|---|---|
| **Finding No. 07** | Date: 19/06/2025 |
| **Finding Type-** CAR ☒ CL ☐ FAR ☐ | |
| **Stage of finding raised:**<br>Desk Review ☒ | |

| | |
|---|---|
| On-site/remote/hybrid assessment | ☐ |
| Technical Review | ☐ |
| Project Review Report by Registry | ☐ |

**Requirement**

GS4GG Principles and Requirements Version 2.1
Validation and verification Standard Version 2.0
MR Template Guide Version 1.1

**Non-Conformity**

Inconsistencies in formatting and missing or inconsistent information have been observed by the VVB in MR version 02, dated 16-June-2025, when compared to the MR Template Guide v1.1, the ER sheet, and the SDG Impact Tool.

**Evidence**

**Section A.1**

1. The MR does not provide clarity on the associated CDM Project ID, nor does it confirm whether Certified Emission Reductions (CERs) have been issued under the CDM for this project activity. This information is necessary to assess potential double counting and ensure alignment with GS4GG principles on exclusivity of claims.

**Section A.3**

1. PD has not mentioned tool number in the revised MR.

**Section C**

1. The Roles & Responsibility included in "Description of monitoring system applied by the project" does not specify the roles & responsibility related to SDG monitoring and Grievance Mechanism.

**Section D.2**

1. The PD has not provided details on skilled, semi-skilled, and unskilled employees for SDG 8. Also, the total number of employees mentioned is not consistent with the figures provided below in the MR.

**Section E.4 and E.5**

1. Table format in the revised MR is not consistent with the MR template guide version 1.1.

**ER Sheet**

1. PD hasn't calculated the PLF for the current monitoring period in ER sheet.
2. The mentioned value of total number of people employed is not consistent with MR.

**SDG Impact Tool**

1. Monitoring period date is not correctly mentioned by PD.
2. The project value mentioned for SDG 7 "Affordable and clean energy "is not consistent with MR and ER sheet.

| **1st Response from PD** | Date: 15/07/2025 |
|---|---|

**Section A.1**

1. The PD has updated the MR to include the associated CDM Project ID and confirmed that no CERs have been issued under CDM for this project activity. This ensures alignment with GS4GG principles and rules related to double counting and exclusivity of claims.

**Section A.3**

1. The PD has included the relevant tool number for the applied methodology in the revised Monitoring Report.

**Section C**

1. The PD has updated the "Description of monitoring system applied by the project" to clearly specify the roles and responsibilities.

**Section D.2**

1. The PD has submitted a detailed breakdown of skilled, semi-skilled, and unskilled employees under SDG 8. The total number of employees has been corrected on revised MR.

**Section E.4 and E.5**

1. The table format in Sections E.4 and E.5 has been revised and aligned with the MR Template Guide Version 1.1.

**ER Sheet**

1. The PLF for the current monitoring period has now been updated in the ER sheet.

2. The total number of people employed has been corrected in the revised MR.

**SDG Impact Tool**

1. The monitoring period date has been corrected in the SDG Impact Tool.

2. The project value under SDG 7 “Affordable and Clean Energy” has been corrected in both the MR and ER sheet.

**Documents provided by PD for review**

Revised MR
Revised ER sheet
Revised SDG impact tool

| **1st Review by Assessment Team** | Date: 23/07/2025 |
|---|---|

**Section A.1**

1. PD has updated this section and mentioned information related CDM and confirmed that no CERs have been issued under CDM for this project activity. Hence, finding is closed.

**Section A.3**

1. PD has mentioned tool number in the revised MR. Hence, finding is closed.

**Section C**

2. PD has updated Section C in the revised MR and specified the roles and responsibilities related to SDG monitoring and the Grievance Mechanism. Hence, finding is closed.

**Section D.2**

1. The PD has now provided details on skilled, semi-skilled, and unskilled employees under SDG 8. The total number of employees has also been corrected and is now consistent throughout the MR. Hence, finding is closed.

**Section E.4 and E.5**

1. The PD has corrected the table format in the revised MR, which is now consistent with the MR Template Guide Version 1.1. Hence, finding is closed.

**ER Sheet**

1. Assessment team confirms that PD has calculated PLF for the current monitoring period in revised ER sheet. Hence, finding is closed.
2. The PD has corrected the total number of people employed, and the values are now consistent with the MR. Hence, finding is closed.

**SDG Impact Tool**

1. PD has corrected the monitoring period date in SDG Impact tool. Hence, finding is closed.
2. The PD has corrected the project value for SDG 7 'Affordable and Clean Energy,' and it is now consistent with both the MR and the ER sheet. Hence, finding is closed.

**Hence Finding #07 Closed**

**Findings raised at the time of TR Assessment**

| **Finding No. 08** | Date: 29/07/2025 |
|---|---|
| **Finding Type-** CAR ☐ CL ☒ FAR ☐ | |
| **Stage of finding raised:**<br>Desk Review ☐<br>On-site/remote/hybrid assessment ☐<br>Technical Review ☒<br>Project Review Report by Registry ☐ | |
| **Requirement** | |
| Validation and verification Standard Version 2.0<br>MR Template Guide Version 1.1 | |
| **Non-Conformity** | |
| **Section A.1**<br>1. Estimated Value for generation and ERs are inconsistent with GS4GG project webpage.<br><br>**Section A.2**<br>1. No SPV's visible at provided Coordinates in MR.<br><br>**Section A.4**<br>1. The Project Developer shall clarify how GS VERs are being claimed for the entire monitoring period from 01/01/2021 to 15/11/2023, given that the transition from GS CER to GS VER is dated 28/04/2022. | |

**Section D.2**

1. It is not clearly mentioned which meters are being used for billing purposes.
2. As the calibration frequency is every five years and the last calibration was conducted on 30/03/2017, the meters were due for calibration in 2023. PD shall clarify whether the calibration was carried out accordingly.

**Evidence**

Clarification is required in various section of MR version 03, dated 15/07/2025, when compared to the MR Template Guide v1.1, registered PDD and project webpage.

| **1st Response from PD** | Date: 31/07/2025 |
|---|---|

**Section A.1**

1. The estimated values for generation and ERs may appear inconsistent with the GS4GG project webpage; however, the values mentioned in this MR are as per the registered PDD, which contains the correct and approved figures. The project team will inform the Gold Standard team regarding this discrepancy and request correction on their webpage.

**Section A.2**

1. The coordinates of the project update in the MR section A.2 with relevant supporting submitted for evidence.

**Section A.4**

1. The transition date has been corrected in section A.4 as per the GS Registry, and the supporting document has been submitted for evidence.

**Section D.2**

1. As per the metering arrangement, the main billing meter used for invoicing and energy accounting is installed at the 132 kV PDPL Substation. The relevant meter serial number is 17051284 same has been added in section D.2.
2. Corrected as per the calibration details, and the supporting document has been submitted.

**Documents provided by PD for review**

Revised MR version 04
Calibration Certificate
Transition Document

| **1st Review by Assessment Team** | Date: 06/08/2025 |
|---|---|

**Section A.1**

1. PD has provided the clarification that the estimated values for generation and ERs on GS4GG project webpage are incorrect and the mail will be shared to GS team regarding same, hence it is accepted by the assessment team.

**Section A.2**

1. The coordinates of the project have been updated in the revised MR section A.2 by PD and they have been assessed and found correct by the assessment team, hence accepted.

**Section A.4**

1. PD has updated the transition date in the revised MR section A.4 as per the GS Registry, and the supporting document and this has been assessed and found correct by the assessment team, hence accepted.

**Section D.2**

1. The PD has provided the clarification and updated the statement in revised MR and the relevant meter serial number has been added in section D.2 and this has been assessed and found correct by the assessment team, hence accepted.
2. PD has updated the calibration details, and the supporting document has been submitted with the revised MR and this has been assessed and found correct by the assessment team, hence accepted.

**Hence Finding #08 Closed**

**Declaration**

All CARs, CLs, and FARs from the Verification

| **Total Number of CARs** | 03 | **Total Number of CLs** | 05 | **Total Number of FARs** | 00 |
|---|---|---|---|---|---|
| **Status of CARs** | ☐ Open<br>☒ Closed<br>☐ Turned to a FAR | **Status of CLs** | ☐ Open<br>☒ Closed<br>☐ Turned to a FAR | **Status of FARs** | ☐ Open<br>☐ Closed<br>☐ Turned to a FAR |

# 7. COMPETENCE OF VERIFICATION TEAM AND TECHNICAL REVIEWERS

**Team Leader & Technical Area Expert (T.A. 1.2): -**



## COMPETENCE STATEMENT

| | |
|---|---|
| Name | Shivani Chauhan |
| Nationality | Indian |
| Countries of Experience | India, Kenya, Madagascar, Fiji |
| Educational Qualification | M.Sc. Environmental Science<br>B.Sc. Environmental Science |
| Year of Experience | 4 years |
| Area of Expertise | Climate Change &Environment Industry |
| Eligible Sectoral Scope | SS 1 – TA 1.2 - Energy generation from renewable energy sources<br>SS 1 – TA 3.1. Energy demand<br><br>She is a **GS Approved Auditor** |
| Approved for Registries | ☒ VCS ☒ SD Vista ☐ Plastic Credit ☒ GS4GG ☒ UCR ☒ UWR ☒ ICR ☒ CERCARBONO ☒ CR-i |

## Roles approved in VKU

| | |
|---|---|
| Project Trainee | NO |
| Validator/Verifier Trainee | NO |
| Validator | YES |
| Verifier | YES |
| Team Leader | YES |
| Technical Reviewer | NO |
| Local Expert (India) | YES |
| TA Expert (1.2 & 3.1) | YES |
| Financial Expert | NO |

| | | | |
|---|---|---|---|
| **Reviewed by** | Apoorva Gupta (Quality Manager) | Date | 09/04/2025 |
| **Approved by** | Barun Kumar (Technical Manager) | Date | 09/04/2025 |

**Validator/Verifier Trainee-**



## COMPETENCE STATEMENT

| | |
|---|---|
| Name | Komal S Kumari |
| Nationality | Indian |
| Countries of Experience | India, Madagascar |
| Educational Qualification | M.Sc. (Environmental Science)<br>B.Sc. (Physics Honors) |
| Year of Experience | 1 Years |
| Area of Expertise | Climate Change &Environment / Industry |
| Eligible Sectoral Scope | NA |
| Approved for Registries | ☒ VCS ☒ SD Vista ☒ Plastic Credit ☒ GS4GG<br>☒ UCR ☒ UWR ☒ ICR ☒ CERCARBONO<br>☒ CR-i |

## Roles approved in VKU

| | |
|---|---|
| Project Trainee | NO |
| Validator/Verifier Trainee | YES |
| Validator | NO |
| Verifier | NO |
| Team Leader | NO |
| Technical Reviewer | NO |
| Local Expert *(Country Wise)* | NO |
| TA Expert *(X.X)* | NO |
| Financial Expert | NO |

| | | | |
|---|---|---|---|
| **Reviewed by** | Apoorva Gupta (Quality Manager) | Date | 07/04/2025 |
| **Approved by** | Barun Kumar (Technical Manager) | Date | 07/04/2025 |

**Technical Reviewer & Technical Area Expert (T.A. 1.2):**



## COMPETENCE STATEMENT

| | |
|---|---|
| Name | Barun Kumar |
| Nationality | Indian |
| Countries of Experience | India, South Africa, Kenya, Uganda, DR Congo, Zambia, Madagascar, Fiji, Egypt, Singapore |
| Educational Qualification | B.Sc. (Environmental Science and Water Management)<br>M.Sc. (Ecology & Environmental Sciences) |
| Year of Experience | 13 Years + |
| Area of Expertise | Climate Change & Environment |
| Eligible Sectoral Scope | SS 1 – TA 1.2 - Renewables<br>SS 3 – TA 3.1 – Energy Demand<br>SS 6 – TA 6.1 – Construction<br>SS 7 – TA 7.1 – Transport<br>SS 13 – TA 13.1 – Solid waste and wastewater<br>SS 14 – TA 14.1 – Forestry<br><br>He is a **GS Approved Auditor** |
| Approved for Registries | ☒ VCS ☒ SD Vista ☐ Plastic Credit ☒ GS4GG<br>☒ UCR ☒ UWR ☒ ICR ☒ CERCARBONO<br>☒ CR-i |

## Roles approved in VKU

| | |
|---|---|
| Project Trainee | NO |
| Validator/Verifier Trainee | NO |
| Validator | YES |
| Verifier | YES |
| Team Leader | YES |
| Technical Reviewer | YES |
| Local Expert (India & South Africa) | YES |
| TA Expert (1.2, 3.1, 6.1, 7.1, 13.1, 14.1) | YES |
| Financial Expert | NO |

| | | | |
|---|---|---|---|
| **Reviewed by** | Apoorva Gupta (Quality Manager) | Date | 25/04/2025 |
| **Approved by** | Dr. Vikas Kumar Aharwal (Director) | Date | 25/04/2025 |

**APPENDIX 1: BREAKDOWN DETAILS**

| DATE | CATEGORY OF BREAKDOWN STATE | INVERTER | FAULT DESCRIPTION | TOTAL BD HOURS |
|---|---|---|---|---|
| 13/08/2021 | PLANT | INV019 | Block 07 Inv 19 | 6.5 |
| 27/09/2021 | PLANT | INV067 | BLK05 INV67 | 5.4 |
| 30/09/2021 | PLANT | INV063 | BLK05 INV63 | 3.6 |
| 30/09/2021 | PLANT | INV067 | BLK05 INV67 | 2.6 |
| 13/08/2022 | PLANT | INV019 | Block 07 Inv 19 | 1.4 |
| 27/09/2022 | PLANT | INV067 | BLK05 INV67 | 0.5 |
| 30/09/2022 | PLANT | INV063 | BLK05 INV63 | 1.2 |
| 30/09/2022 | PLANT | INV067 | BLK05 INV67 | 14 |
| 13/10/2022 | PLANT | All Inverter | 13 nos of DC String fault | 5.7 |
| 14/10/2022 | PLANT | All Inverter | 13 nos of DC String fault | 6.1 |
| 15/10/2022 | PLANT | All Inverter | 13 nos of DC String fault | 3.6 |
| 17/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 4.8 |
| 17/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 6.7 |
| 18/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 7.4 |
| 18/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 8.1 |
| 19/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 5.3 |
| 19/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 3.1 |
| 20/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 2.6 |
| 20/10/2022 | PLANT | All Inverter | 12 nos of DC String fault | 4.7 |
| 20/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 5.4 |
| 21/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 6.2 |
| 21/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 4.8 |
| 21/10/2022 | PLANT | All Inverter | 12 nos of DC String fault | 5.1 |
| 22/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 3.7 |
| 22/10/2022 | PLANT | All Inverter | 12 nos of DC String fault | 5.6 |
| 22/10/2022 | PLANT | All Inverter | 11 nos of DC String fault | 2.1 |

| | | | | |
|---|---|---|---|---|
| 31/10/2022 | PLANT | All Inverter | 12 nos of DC String fault | 4.9 |
| 03/11/2022 | PLANT | INV067 | Inverters under breakdown due to flood | 7.2 |
| 05/11/2022 | PLANT | INV067 | Inverters under breakdown due to flood | 8.6 |
| 07/11/2022 | PLANT | INV067 | No's INV breakdown due to water logging. | 6.8 |
| 10/11/2022 | PLANT | None | 02 inverter under breakdown due to flood | 7.9 |
| 12/11/2022 | PLANT | INV067 | 01 inverter under breakdown due to flood | 8.1 |
| 12/11/2022 | PLANT | None | 02 inverter under breakdown due to flood | 9.4 |
| 12/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 7.8 |
| 13/11/2022 | PLANT | INV067 | 01 inverter under breakdown due to flood | 9.4 |
| 13/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 8.1 |
| 14/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 7.8 |
| 14/11/2022 | PLANT | INV067 | 01 inverter under breakdown due to flood | 6.9 |
| 14/11/2022 | PLANT | None | 02 inverter under breakdown due to flood | 5.8 |
| 15/11/2022 | PLANT | INV067 | 01 inverter under breakdown due to flood | 7.1 |
| 15/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 8.4 |
| 15/11/2022 | PLANT | None | 02 inverter under breakdown due to flood | 5.9 |
| 16/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 5.3 |
| 17/11/2022 | PLANT | INV067 | 01 inverter under breakdown due to flood | 4.1 |
| 18/11/2022 | PLANT | None | 02 inverter under breakdown due to flood | 6.2 |
| 18/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 5.6 |
| 20/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 5.5 |
| 20/11/2022 | PLANT | None | 02 inverter under breakdown due to flood | 4.7 |
| 20/11/2022 | PLANT | INV067 | 01 inverter under breakdown due to flood | 6.8 |
| 21/11/2022 | PLANT | INV017 | 01 inverter under breakdown due to flood | 6.7 |
| 22/11/2022 | PLANT | INV067 | 01 inverter under breakdown due to flood | 7.1 |
| 22/11/2022 | PLANT | None | 02 inverter under breakdown due to flood | 8.3 |

| | | | | |
|---|---|---|---|---|
| 25/11/2022 | PLANT | None | 02 Inverters under breakdown due to flood | 8.5 |
| 25/11/2022 | PLANT | INV067 | 1 inverter under breakdown due to flood | 7.5 |
| 26/11/2022 | PLANT | INV067 | 1 inverter under breakdown due to flood | 8.6 |
| 05/04/2023 | PLANT | None | 2No's INV B/D due to 3CX240 Sq mm AC LT Cable (R&Y Phase) Ground Fault. | 2.5 |
| 06/04/2023 | PLANT | All Block | 132 KV line Shutdown taken from UPPTCL 200 KV Bajariya substation for ABT Meter Calibration at Plant 132 kV Switchyard end. | 3.3 |
| 08/04/2023 | PLANT | 113.114 1151 | MCCB 29 Trip Due to the INV114 DC side Blast. | 1.5 |
| 08/04/2023 | PLANT | 114 | INV114 DC Side Burnt & Blast. | 2.2 |
| 10/04/2023 | PLANT | 78 | PV01 MC4 Connector was melt. | 0.7 |
| 10/04/2023 | PLANT | All Block | UPPTCL shutdown taken for M&A work at 220 kV TL line. | 0.8 |
| 10/04/2023 | PLANT | All Block | UPPTCL shutdown taken for M&A work at 220 kV TL line. | 0.9 |
| 12/04/2023 | PLANT | 45 | INV45, 35Sq mm AC LT Cable Ground fault. | 0.6 |
| 14/04/2023 | PLANT | 101 | Alarm Abnormal DC Circuit MPPT01 Fault. | 0.6 |
| 23/04/2023 | PLANT | 11 | ASB02 Mechanical Problem issue. | 0.5 |
| 23/04/2023 | PLANT | 72 | ASB02 Mechanical Problem issue. | 0.7 |
| 26/04/2023 | PLANT | 19 | Y-String Breakdown due to the MC4 Connector Melt. | 0.4 |
| 27/04/2023 | PLANT | 113 | Bottom of Purline. | 1.7 |
| 30/04/2023 | PLANT | 29 | ASB02 Mechanical Problem issue. | 2.8 |
| 30/04/2023 | PLANT | 72 | MC4 connector open | 1.4 |
| 09/05/2023 | PLANT | 35 | String Breakdown due to the MC4 Connector Melt. | 2.1 |
| 12/05/2023 | PLANT | 8 | INV down due to LIR in PV 08 | 1.5 |
| 29/05/2023 | PLANT | 18 | INV down due to LIR in PV 06 | 1.3 |
| 07/06/2023 | PLANT | 32 | Pv 08 Breakdown due to the DC Cable Ground Fault. | 1.2 |
| 01/07/2023 | PLANT | All Block | ASB Trip due to the Malfunctioning. | 2.2 |
| 17/07/2023 | PLANT | None | Incomer 04 Trip Due to the End termination kit failure. | 0.9 |
| 17/07/2023 | PLANT | None | PV07 MC4 Connector was Open | 3.7 |
| 27/07/2023 | PLANT | None | MC4 connector open | 5.6 |
| 29/07/2023 | PLANT | All Block | MC4 connector was melt | 2.1 |
| 06/08/2023 | PLANT | None | Water Logging Flood | 4.9 |
| 06/08/2023 | PLANT | 12 | Water logging heavy rain | 7.2 |
| 06/08/2023 | PLANT | None | Incomer 3 manually tripped for IDT 1 Charging | 8.6 |

| | | | | |
|---|---|---|---|---|
| 30/08/2023 | PLANT | All Block | LT Panel to SACU supply cable issue. | 6.8 |
| 31/08/2023 | PLANT | 7 | Jumper Breakdown | 7.9 |
| 31/08/2023 | PLANT | 3 | Water Logging Heavy Rain | 8.1 |
| 05/09/2023 | PLANT | 44 | INV B/d Due to Abnormal INV. Circuit. | 9.4 |
| 05/09/2023 | PLANT | 74 | Bottom of Parline. | 7.8 |
| 13/09/2023 | PLANT | 69 | MCCB tripped due to over heating | 9.4 |
| 18/09/2023 | PLANT | None | MCCB tripped due to 35sq mm lug melt in ASB02 | 8.1 |
| 27/09/2023 | PLANT | All Block | INV down due to LIR in PV 06 | 7.8 |
| 27/09/2023 | PLANT | All Block | INV B/d Due to Abnormal INV. Circuit. | 6.9 |
| 27/09/2023 | PLANT | All Block | 35 sq mm LT cable got punctured | 5.8 |
| 21/10/2023 | PLANT | 109 | Block 06 Inverter 69 DC/AC section brunt inverter under breakdown | 7.1 |
| Total Breakdown hours | | | | 412.8 |

**History of the Document**

| Version | Date | Amendment Summary* | Prepared By | Approved By |
|---|---|---|---|---|
| 3.1 | 14.09.2024 | Duplicacy of executive summary and table is removed from section 1 | Apoorva Gupta | Dr. Vikas Kumar Aharwal |
| 3.0 | 21/05/2024 | Signature of TR added as approver | Apoorva Gupta | Dr. Vikas Kumar Aharwal |
| 2.1 | 23/04/2024 | Change in VKU address at front page | Apoorva Gupta | Dr. Vikas Kumar Aharwal |
| 2.0 | 28/08/2023 | Revisions done in all sections as per the requirement of GS4GG Standard | Vandana Gupta | Dr. Vikas Kumar Aharwal |
| 1.1 | 22/07/2021 | NA | Ayushi Garg | Vikas Aharwal |
| 1.0 | 17/03/2020 | NA | Ayushi Garg | NA |

*Amendment Summary adopted in VKU System on 12.10.2022