GS4GG Verification (Performance) Certification Report

VKU Certification Pvt. Ltd.

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Project Title
20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan

Registry Project ID: - GS 5575
Monitoring Period: 01/03/2020 to 31/12/2022 (Inclusive of both dates)

For
Infinite Environmental Solutions LLP

VKU Project Reference No.
VKU.VER.01.23_GS_5575

Executive Summary:

A) Basic information		
Project Title	**20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan**	
GS4GG Project ID:	GS 5575	
Date of Project Design Certification	11/07/2017	
Last Date of Annual Report	20/12/2023	
VKU Project Reference No.	VKU.VER.01.23_GS_5575	
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 17.0	
Technical Area (TA)	T.A 1.2	
Project Representative	Infinite Environmental Solutions LLP	
Project Investor	Janardan Wind Energy Pvt. Ltd. (JWEPL)	
GS4GG Activity Requirements	Renewable Energy Activities	
GS4GG Certified Product	☒GHG Emissions Reduction & Sequestration ☐Renewable Energy Label ☐N/A	
Selected Sustainable Development Goals	**SDG 7** - Affordable and Clean Energy **SDG 8** - Decent Work and Economic Growth **SDG 13** - Climate Action (Mandatory)	
GS4GG SDG Impact Statement	**SDG 13:** 92,384 tCO_2e **SDG 8:** Trainings – 10 Employees – 34 Income – INR 20,603,333 **SDG 7:** 94,492.65 MWh	
Scale of Project Activity	Large Scale	
B) Verification		
Start date of crediting period	30/03/2017	
End date of crediting period	29/03/2024	
Monitoring Period	01/03/2020 to 31/12/2022 (Inclusive of both dates) 3rd [1]	
C) Monitoring report	**Version**	**Date**
Initial	01	10/07/2023
	02	05/01/2024
	03	08/02/2024
	04	20/08/2024
	05	18/09/2024
Final	06	17/10/2024

[1] According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit Once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020 to 31/12/2022.

D) Performance Certification report	Version	Date
Initial	01	30/01/2024
	02	03/03/2024
	03	12/09/2024
	04	23/09/2024
	05	05/11/2024
Final	06	29/11/2024

E) Verification Team	
Team Leader[2]	Barun Kumar
Technical Expert (T.A.1.2)	Barun Kumar
Validator/Verifier	Shivani Chauhan
Validator/Verifier- Trainee	Aastha Verma
Project Trainee	Anand Kumar
F) Approvals	
Technical Reviewer[3]	Sanjay Kumar K
Technical Expert (T.A. 1.2)	Sanjay Kumar K

G) Final opinion

VKU Certification has performed 3rd verification under first renewable crediting period of the GS4GG project **"20MW Solar Project in Sanwreej, Jodhpur, Rajasthan**" and GS4GG Ref. Number **5575**. The verification includes confirmation about the implementation of the monitoring plan of the transition GS PDD v2.2, the date of registration of project in GS is 22-March-2018 and the application of the monitoring methodology as per the ACM0002: Grid-connected electricity generation from renewable sources: version 17.0/12/. 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 ID 5575 "20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** in India during the monitoring period from 01/03/2020 to 31/12/2022 (including both days) amount to **92,384 tCO_2e.**

VVB Opinion	Conclusion
Positive	☒
Negative	☐

Therefore, VKU certification recommends request of Issuance to GS4GG.

H) Authorization	
Director	Dr. Vikas Kumar Aharwal
Date	02/12/2024

I) Distribution

No public distribution without written confirmation from client.

J) Verification Status	
Findings closed	Yes

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

Draft report	Yes
Final report	Yes

Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CERs	Certified Emission Reductions
CM	Combined Margin
CL	Clarification Request
CO_2e	Carbon dioxide equivalent
COP	Conference of Parties
DISCOM	Distribution Company
EF	Emission Factor
ERs	Emission Reductions
FAR	Forward Action Request
GHGs	Greenhouse Gas(es)
GSS	Grid Sub Station
IPCC	Intergovernmental Panel on Climate Change
JWEL	Janardhan Wind Energy Pvt. Ltd.
JNNSM	Jawaharlal Nehru National Solar Mission
kWh	Kilo Watt Hour
LE	Leakage Emissions
MR	Monitoring Report
MP	Monitoring Plan
MWh	Mega Watt Hour
NTPC	National Thermal Power Cooperation
NVVN	NTPC Vidyut Vyapar Nigam Ltd
OM	Operating Margin
PD	Project developer
PE	Project Emissions
PDD	Project Design Document
PR	Project Representative
PS	Project Standard
PCP	Project Cycle Procedure
PP	Project Participant
PPA	Power Purchase Agreement
PV	Photovoltaic
Ref.	Document Reference
SECI	Solar Energy Corporation of India Ltd
SEB	State Electricity Board
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
TR	Technical Reviewer
QA/QC	Quality Assurance/Quality Control
UNFCCC	United Nations Framework Convention on Climate Change
VERs	Verified Emission Reductions
VKU	VKU Certification Pvt. Ltd.
VT	Verification Team
VVS	Validation & Verification Standard

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1. INTRODUCTION

1.1 Executive Summary

Efforts towards the Climate Change Mitigation through the generation of electrical energy using sustainable means is the primary purpose of the project activity **"20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** in India. It is a largescale solar project in Sanwreej village of Phalodi tehsil in Jodhpur district of Rajasthan state in India which is replacing anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 34,882 tCO_2e per annum, thereon displacing 35,678 MWh/year amount of electricity from the generation-mix of power plants connected to the Indian electricity grid, which is mainly dominated by thermal/ fossil fuel-based power plant. Janardan Wind Energy Pvt. Ltd. (JWEPL) is the project investor of this project activity.

The details of the project are mentioned below:

Project Investor's Name	**:**	Janardan Wind Energy Pvt. Ltd. (JWEPL)
Capacity in MW	**:**	20 MW_{AC}
Project Start Date	**:**	20/07/2016 (Date of 1st Purchase order)
Commissioning Date	**:**	30/03/2017 (Project – I for 10 MW capacity) 18/04/2017 (Project–II for 10 MW capacity)

SDG	Parameter	Annual Average Estimation as per PDD	Estimation for the monitoring period	Actual Achieved during the monitoring period	Difference
7	Renewable electricity generation (MWh)	35,678	101,266.87	113,095.95	11.68%
		35,678	86,311.44	94,492.65[4]	9.48%
8	Number of Trainings Conducted	1	3	12	323%
		1	2	10[5]	313%
	Income generation (INR)	NA	NA	24,173,333	NA
		NA	NA	20,603,333[6]	NA
	Number of Employment	37	37	34	-8.11%
13		34,882	99,007	110,572	11.68%

[4] Generation is only claimed from 01/08/2020 instead of 01/03/2020. Therefore value shows the actual MWh claimed during the current monitoring period.
[5] Training is only claimed from 01/08/2020 instead of 01/03/2020. Therefore value shows the actual trainings claimed during the current monitoring period.
[6] Income generation are only claimed from 01/08/2020 instead of 01/03/2020. Therefore value shows the actual income generation claimed during the current monitoring period.

	Emission Reduction (tCO_2e)	34,882	84,385	92,384[7]	9.48%

However, as per section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020.

1.2 Objective

Janardan Wind Energy Pvt. Ltd. (JWEPL) and Infinite Environmental Solutions LLP has contracted VKU Certification Private Limited (VKU Certification) to conduct the verification and certification of emission reductions reported for the GS4GG project activity **"20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** in India for the period **01/03/2020 to 31/12/2022**[8] (Inclusive of both dates). This report contains the findings of the verification process and a certification statement for the verified emission reductions.

This is the third verification 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 stated above. 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 third monitoring period under first crediting period for "**20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** for the period **01/03/2020 to 31/12/2022** (inclusive of both dates) as per para 1.1, 9.1 and sub para 9.1.1 of GS4GG validation and verification standard v1.0./5/

1.3 Scope and Criteria

The scope of this verification was the independent objective review and ex-post determination of the monitored reductions in GHG emissions from the **"20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan".** The verification of this project was based on the validated & registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and monitoring report/19/ along with supporting documents submitted by the project representative to the VKU Assessment team. The

[7] The VERs are only claimed from 01/08/2020 instead of 01/03/2020. Therefore value shows the actual claimed VERs during the current monitoring period.
[8] VERs are only claimed before the 3 years of the physical site visit date (31/07/2023), i.e., from 01/08/2020 to 31/12/2022.

documents thus submitted to the VKU Assessment Team were reviewed against the following guidance and protocol:

1. GS4GG validation and verification standard v1.0, dated: 06/03/2023/5/
2. GS4GG principles and requirements v1.2, dated: 23/10/2019/1/
3. Safeguarding Principles and Requirements v2.1, dated: 29/06/2023/3/
4. Stakeholder consultation and Engagement Requirements v2.0, dated 14/06/2022 /2/
5. Site Visit and Remote Audit Requirements and Procedures v2.0 dated: 30/05/2023 /6/
6. CDM Validation and Verification standard for Project Activity v3.0 /15/
7. SOP of VKU QMS Process version 2.2, dated: 29/05/2023 /17/
8. Renewable Energy Eligibility Requirements of GS4GG v1.4./10/

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 GS verified emission reductions (GSVERs) without any double counting/39/.
- 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 these thirteen phases, including;

1. **Planning:** The assessment team starts to plan and it starts with a desk review followed by the following activities listed below.
2. **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.
3. **Risk Assessment:** Assessment team performed risk assessment 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 V1.0/5/. The same was documented in a different VKU internal document where the type of risks were identified and then evaluated.

4. **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.

5. N**eed for site visit is identified and site visit is planned:** Onsite visit was conducted by VKU in line with Site Visit and Remote Audit Requirements and Procedures Version 02 dated 30/05/2023 /6/. Since this is the third verification of the project hence VVB decided to conduct an Onsite Visit for the said project activity and interviews with stakeholders /33/.

6. **Audit and Sampling 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.

7. **Evidence Gathering Plan:** The evidence-gathering plan is prepared based on the results of the VKU's Assessment Team's risk assessment. It was designed to lower the verification risk to an acceptable level. The evidence-gathering plan thus specify the type and extent of evidence-gathering activities.

8. **Client Confirmation:** The site visit audit plan is sent to client for confirmation/approval via email.

9. **Document Review:** Relevant documents, such as the verification report, monitoring plan, methodology, GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and QA/QC procedures are thoroughly reviewed.

10. **On-Site Assessment:** This includes interviews and evaluation of the actual project scenario /30//33/.

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

12. **Independent Review:** A technical reviewer provides an independent assessment before completeness /Quality Check.

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

Outstanding issues were resolved, leading to the issuance of the final verification report. It is important to note that the verification process does not involve providing consultancy to the project representative. 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 the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent VKU's QMS procedure/17/, with a Reasonable level of assurance, as per the GS4GG validation and verification standard v1.0/5/ and GS4GG Principles and Requirements v1.2/1/.

VVB applies the general requirements, consideration of materiality in planning verification and for conducting verification as per the GS4GG validation and verification standard v1.0, para 9.6/5/. For the identification of materiality threshold; VVB referred para 9.6.3 of validation and verification standard v1.0/5/ and apply **2%** materiality threshold to the total emission reduction actually achieved by the project activity **"20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** illustrated in Table No. 01. As per the GS4GG validation and verification standard; section 9.6/5/, the level of assurance of the verification report falls under reasonable level of assurance.

Table No. 01:- Materiality Threshold Calculation

Application of Materiality Threshold as per the GS4GG VVS v1.0 para 9.6.3	**Materiality threshold value (tCO_2e)**	**Reported ERs (tCO_2e)**		**Justification (If any deviation)**
		In Initial MR version 01	**In Final MR version 06**	
2%	2,279.2 (Initial) 24,177 (Final)	116,561.20	92,384	Total difference between reported ERs is 24,177 tCO_2e. The difference is greater than the materiality threshold. Verification Team confirms that there is typo error in net electricity generation in ER sheet which has been updated in the Final ER sheet/20/ and MR /19/. Also, According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed

				before the 3 years of the physical site visit date, i.e., from 01/08/2020. Now values are corrected as per the values in JMRs and invoices/26/ submitted by Project representative, therefore this is accepted by VVB.

1.5 Basic information of project activity

Table No. 02:- General Information of Project Activity

Title of project activity	20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan
GS4GG Reg. No.	GS 5575
Scale of project activity	Large Scale
Applied Methodology/ies	ACM0002: Grid-connected electricity generation from renewable sources- Version 17.0
Sectoral Scope(s) / Technical Area(s)	Scope: 01 Energy Industries (renewable- and non-renewable sources) T. A. 1.2 (Solar)
Project Representative	Infinite Environmental Solutions LLP
Host Country	India
Location of project activity	Village: Sanwreej, Tehsil: Phalodi, District: Jodhpur in Rajasthan state of India
Start date of crediting period	30/03/2017 (1st)
Type and length of crediting period	Renewable, 7 years[9] (From 30/03/2017 to 29/03/2024, both dates are included)
Monitoring period	3rd From 01/03/2020 to 31/12/2022 (Inclusive of both dates)

Table No. 03: - 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	Sanjay Kumar K

[9] The retroactive start date of crediting period is 30/03/2017 and thus 1st crediting period is from 30/03/2017 to 29/03/2024 as per registered PDD. There was a lack of clarity regarding the crediting period and certification cycle of this project activity. However, as per the mail communication between Project representative and Sustain cert submitted by PP; the crediting period and certification cycle is accepted as 7+5+3 years. Hence, the current monitoring period from 01/03/2020 to 31/12/2022 (Inclusive of both dates) falls under 1st crediting period from 30/03/2017 to 29/03/2024 (Inclusive of both dates) under 7+5+3 certification cycle. Hence it remains same as reported earlier.

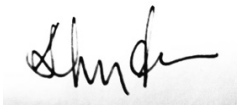
Signature (Final version only)	
Name, position of the authorized signatory for issuance of the verification report	Dr. Vikas Kumar Aharwal Director, VKU Certification Pvt. Ltd.
Signature (Final version only)	VIKAS KUMAR AHARWAL Digitally signed by VIKAS KUMAR AHARWAL Date: 2024.12.02 12:58:07 +05'30'

Table No. 04: Sustainable Development Contributions for verification

Sustainable Development Goals Targeted	SDG Impacts	Amount Achieved	Units
SDG 13: Climate Action	Emission Reduction	92,384[10]	GS VERs/tCO_2e
SDG 8: Decent Work and Economic Growth	Trainings Employees Income	10 34 20,603,333	Number Number INR
SDG 7: Affordable and Clean Energy	MWh of renewable energy generated	94,492.65	MWh

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[11].** The personnel employed and their roles in this assessment are mentioned below;

Table No. 05: Verification Team member(s)

S.No.	Full Name	Role(s)	Type of Resource	Type of Activity(ies) carried out
1	Barun Kumar	Team Leader and Technical Expert T.A. 1.2 (Solar)	Internal	DR, OSV, I, Audit Finding Report, FVR[12]
2	Shivani Chauhan	Validator/Verifier	Internal	DR, OSV, I, DVR

[10] According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit Once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020

[11] Details mentioned in below section of this report.

[12] DR – Desk Review, OSV – On-site Visit, I- Interview, DVR- Draft Verification Report, FVR-Final Verification Report

3	Aastha Verma	Validator/Verifier-Trainee	Internal	DR, DVR
4	Anand Kumar	Project Trainee	Internal	DR

Table No. 06: Technical Reviewer(s) and approver(s) of the verification report

S.No.	Full Name	Role(s)	Type of Resource	Type of Activity(ies) carried out
1	Sanjay Kumar	Technical Reviewer	External	Technical Review
2	Sanjay Kumar	Technical Expert T.A. 1.2 (Solar)	External	Technical Review

The competence statement of verification team members is included under Section 7 of this report.

Table No. 07: Verification milestones:

Monitoring report submission	11/07/2023
On-site assessment and Interview	31/07/2023
Audit Finding Report	05/08/2023
Draft Verification Report	17/01/2024
Final Verification Report	29/11/2024

VKU Certification followed a rule-based verification approach as per the internal VKU SOP 4 of QMS /17/, wherein, the contract review is undertaken as per valid/effective version of GS4GG VVS version 01 /5/ clause 1.3. Once the contract is agreed for verification, the monitoring report of the project activity submitted to VVB for further process. Key steps are listed in Section 1.3 of this report and described in Section 2.1 to 2.4 of this report.

No sampling plan is employed by the assessment team and during onsite visit and 100% data is reviewed for this project 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 17.0**/12/
- Scope: 01 - Energy Industries (renewable /non-renewable sources) and sub sectoral scope 1.2.
- Project type: Type I - Renewable energy projects

Tools used for GHG Calculations are as follows as per registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/ are;

- Methodological Tool- Tool for the demonstration and assessment of additionality - Version 07.0.0 (EB 70, Annex 08) /13/
- Tool to calculate the emission factor for an electricity system, Version 07.0 (EB 97, Annex 07) /14/

Keeping in line with ISO (14064-3; 2019, clause 06 & 14065-2020, clause 09) /09/ 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 5575.

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 in MR/19/ and ER sheet/20/ and 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, employment record, income record, training records 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 GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/.
- The applied monitoring methodology ACM0002: Grid-connected electricity generation from renewable sources- Version 17.0 /12/.
- The monitoring report for the current monitoring period/19/ 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).
- List of Supporting Documents mentioned in the Section 4 for this report.

2.2 Site Visits (Onsite)

An onsite visit was undertaken by VKU Certification on 31/07/2023[13] in Bikaner district of Rajasthan as per the "GS4GG site visit and remote audit requirements and procedures" v2.0 dated: 30/05/2023 /6/ and "GS4GG applicability of minimum site visit requirement by VVB" dated 16/08/2021 v2.0 /7/ and carry out following;

- An assessment of the implementation and operation of the registered project activity as per the registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/,
- 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 GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.
- 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 for SDG 7 ,8 and 13 such as employment records and training records/23/;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, the applied methodology/12/ including applicable tool(s)/13/ and /14/.
- 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 as per VVS v1.0 clause 9.3.2/5/.

Verification Team also confirms that there is no deviation(s) to address a non- compliance with the minimum site visit requirement as per the GS4GG requirement [14] applicability of minimum site visit requirement by VVB" dated 16/08/2021 v 2.0 /7/.

Interview

An on-site inspection/30/, /33/, /35/ has been performed by the assessment team. Representatives of the PD and O&M team were interviewed /33/ personally by assessment team on **31/07/2023** at Sanwreej

[13] According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020.

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

village of Phalodi tehsil in Jodhpur district of Rajasthan state in India. Personnel responsible for monitoring of project activity, data collection, management, and QA/QC procedure were 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.

Table No.-08: Onsite inspection of the project activity by the assessment team

Date of Onsite Inspection: 31/07/2023			
Name	**Role**	**Location of Site**	**Activity Performed On-Site**
Barun Kumar	Team Leader and Technical Expert (T.A. 1.2)	Sanwreej village of Phalodi tehsil in Jodhpur district of Rajasthan state in India	• An assessment of the implementation and operation of the GS4GG project activity as per the GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/. • A review of information flows for generating, aggregating and reporting of the monitoring parameters. • Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan. • A cross-check between information provided in the MR and data from other sources. • A check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the registered GS passport version 03, dated: 28/02/2018/18/,
Shivani Chauhan	Validator/Verifier		

			GS Transition PDD v2.2/18/, and the applied methodology ACM0002 v17.0/12/. • A review of calculations and assumptions made in determining the GHG data and ERs, and • 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 internal audit, Procedures for handling non-conformances with the validated monitoring plan, personal training, and archiving procedures. The assessment was based on the feedback received during onsite interview coupled with the documentation in VKU.F62W.Field Assessment Checklist for Onsite Visit /34/. The tables serve to identify the individuals interviewed and provide relevant information regarding their roles within the project.

During Onsite Visit/35/ and /34/, local stakeholders involved in the projects /30/ and /35/ have been also interviewed to verify implementation of grievance mechanism and process of its resolution, as mentioned in the Monitoring report/19/. It also included confirmation of sustainable development claims and verification of the socio-economic impact made by the project on the local community. VKU also checked records and observed that the Project developer has provided opportunities for the locals to express their opinions and grievances. Project developer has put efforts to resolve issues through effective communication & consultation with stakeholders. VKU could verify & confirm all the above statements via focussed group discussions and personnel interview/33/ with stakeholders as tabulated below:

Table No. 10: Personnel Interview and Focussed Discussion with Site Personnels & Local Stakeholders

S. No.	Interviewee	Dates	Subject	Team Member Involved

	Name	Affiliation	Gender			
01.	Puna Ram	Junior Officer	Male	31/07/2023	• Operation and maintenance Procedures, Calibration, JMR. • Local employment, trainings, • Monitoring of SDG parameters • Data archiving, breakdown details • O&M of the plant site and personnel responsible for monitoring of required monitored parameters and implementation of QA/QC Procedure. • Stakeholder meeting Employment opportunities, Standard of Livings, etc. • The ongoing communication procedure and the address of their grievance mechanism followed by the project proponent • Scope and generation of employment in the locality due to the implementation of said project activity in the area.	Barun Kumar and Shivani Chauhan
02.	Motilal	Assistant Manager	Male			
03.	Ram raj	Senior Executive	Male			
04.	Dhananjay	Junior Executive	Male			
05.	Dilip	Junior Executive	Male			
06.	Narayan	Executive	Male			
07.	Mahipal Bishnoi	Local Stakeholder, Sanwreej	Male			
08.	Mahipal	Local Stakeholder	Male			
09.	Dilip	Local Stakeholder	Male			
10.	Manohar	Local Stakeholder	Male			
11.	Subash	Local Stakeholder	Male			

VKU's Assessment Team use form VKU.F46W. Attendance Sheet of Onsite audit /35/ to write the names of site personnel and local stakeholders present during opening and closing meeting and those who were interviewed at the site.

Verification 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.

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 verification team prepares and/or updates a verification protocol (internal document) that records the conformities and non-conformities, which may be of following types;

As per GS VVS version 01 clause 6.3.14 CAR (Corrective Action Request) is raised if one of the following occurs:

1. The Project Developer(s) has made mistakes that will influence the ability of the proposed project to achieve real, measurable, verifiable and additional emission reductions/GHG Removals and SDG impacts (e.g., establishment of inaccurate baseline scenario(s), implementation of incorrect/inapplicable methodological steps and/or data and parameter values for calculation of emission reductions and SDG impacts, adoption of erroneous estimations/assumptions for demonstration of additionality etc.);
2. The applicable GS4GG requirements and procedures have not been met (e.g., partial or complete non-compliance with applicable regulatory documents, e.g., local stakeholder engagement, safeguarding principles assessment and sustainable development impact assessment etc.);
3. There is a risk that GHG emission reductions and SDG impacts cannot be monitored or calculated. Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable GS4GG requirements have been met

Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable GS4GG requirements have been met.

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

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

In summary, **02 CL, 02 CARs and 00 FAR** were raised during this verification which were closed successfully, and details are provided under Section 6 of this report. The section 06 also includes the

response provided by the project representative and its assessment by the verification team when it was closed out or otherwise.

2.4 Technical Review

A draft verification report that is prepared by verification team is reviewed by an independent technical review team 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 verification 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 verification 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 "**20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan**" for the monitoring period 01/03/2020 to 31/12/2022 (inclusive of both dates).

The project is registered under the Gold Standard (GS) with project ID: 5575 and under CDM with project ID 10392[15] but it has been transferred to GS on as per the GS transition document version 2.2 submitted by PD. VVB confirms by cross checking the CDM project webpage that no CERs have been claimed after 29/02/2020. The registration status has been confirmed by the assessment team by surfing the Gold Standard registry's website. Same sort of comprehensive search was conducted across the websites of several registries VCS (Verified Carbon Standard), GCC (Global Carbon Council) and UCR (Universal Carbon Registry) etc, using matching project field, scope, titles and capacity, as well as by searching the details of Project Proponent. This rigorous surfing through various registries did not yield any instances of the project being registered under any of the aforementioned registries or any comparable mechanisms

The Project Developer (PD) has also confirmed this claim of no double accounting through a revised declaration document submitted to the assessment team dated 28/06/2024, affirming that the GHG

[15] https://cdm.unfccc.int/Projects/DB/Applus1501572247.73/view

emission reductions achieved by the project during the current monitoring period are not sought or claimed under any other registries apart from GS.

Cross-Verification of GHG Benefits:

An independent search was also conducted to ascertain whether the project had been registered or claimed for other GHG-related benefits, such as Renewable Energy Certificates (RECs) and International Renewable Energy Certificates (I-RECs). The assessment conducted thoroughly in the mentioned manner, coupled with the declaration submitted by the PD dated 28/06/2024, affirms that there is no double counting of GHG benefits arising from this project activity.

The project's non-rejection status by other GHG programs has also been confirmed through a meticulous assessment. In conclusion, the project's exclusive registration under GS for the current monitoring period, along with its absence from rejection lists of other GHG programs, has been comprehensively verified, ensuring the integrity and credibility of its GHG benefits claims. Details of the registries checked are as follows:

1) http://cdm.unfccc.int/
2) Verra Search Page
3) I-REC Standard - The International REC Standard Foundation (irecstandard.org)
4) https://cri.nccf.in/
5) International Carbon Registry - International Carbon Registry
6) GCC PROJECTS PORTAL (globalcarboncouncil.com)
7) https://biocarbonregistry.com/en/projects/
8) https://wilder.earth/social_carbon
9) https://www.ucarbonregistry.io/
10) https://www.ecoregistry.io/
11) https://www.carbonregistry.com/explore/projects
12) https://wilder.earth/social_carbon
13) https://www.recregistryindia.nic.in/
14) https://www.ecoregistry.io/

A declaration for “No double counting”/39/, has been submitted by the PD to VVB claiming that the participation of project is voluntary in nature and not participating in any other Emission trading program. Additionally, there is no involvement of Host country government in terms of carbon credit. Hence, VVB also confirmed that claimed GS VERs are not included within and counted under regulated domestic mitigation target or NDC. The same has been cross verified independently on NDC registry

and Indian Climate Action Tracker and found that the given project GS 5575 is not included in such programs.

3.1 Description of project

3.1.1 General description of project

Verification Means	Desk Review of MR/19/, supporting documents (section 4) and registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and On-site Audit.
Findings	No finding raised for this section.
Conclusions	Assessment Team confirms that general description of project mentioned in MR/19/ section A.1 is correct and it is in compliance with registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/. And also confirms that section A.1 of MR/19/, fulfils the requirement of GS4GG v1.2, VVS v1.0/5/ and followed the guidelines provided in the MR Template v1.1/16/.

3.1.2 Location of Project

Verification Means	Desk Review of MR/19/, supporting documents such as, O & M Agreement /27/, Power Purchase Agreement /28/ etc. listed in (section 4) and registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/. Assessment Team used GPS Map Camera/31/ during site visit to confirm the location and geo-tagged the evidences collected/recorded during on-site visit, also during desk-review, team employed Google Earth Pro Software /32/ to confirm if the site to be visited is actually installed and reflected at the geo-coordinates defined in the registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.
Findings	CAR 01 was raised and closed successfully. For more details refer section 06
Conclusions	Assessment Team concludes that location of project provided in section A.2 of the updated final MR version 4.0/19/ for the current monitoring period is now correct and comply with the registered GS Passport, dated 28/02/2018, V03/18/ and GS Transition PDD v2.2/18/

	and also verified the same through GPS Map Camera app/34/ during onsite visit. The given geo-coordinates are found to be correct during desk review with the help of Google Earth Pro software/32/. Hence, Location of project found to be correct and follows the guidelines provided in the GS4GG guide of MR Template v1.1/16/.

3.1.3 Reference of applied methodology

Verification Means	Desk Review of MR version 1.0 dated: 10/07/2023, Final MR/19/, its final corresponding ER/20/ supporting documents such as applied methodology/12/ and tools/13/, /14/ with the registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and On-site Audit.
Findings	No finding raised for this section
Conclusions	Assessment Team confirms that applied CDM methodology ACM 0002 "Grid- connected electricity generation from renewable sources" version 17.0/12/ as this is a large-scale solar project. Tool 01(Tool for the demonstration and assessment of additionality version 7.0)/13/ and Tool 7 (Tool to calculated the emission for an electricity system version 7/14/ are used which is compliance with the registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, the assessment team can ascertain that the description of the methodology used in the project mentioned is in line with GS4GG validation and verification standard v1.0, GS Principle and Requirements v1.2. and also follow the guidelines provided in the GS4GG guide MR Template v1.1/16/.

3.1.4 Crediting period of Project

Verification Means	Desk Review of MR version 1.0 dated: 10/07/2023, Final MR version 6.0 dated 17/10/2024 and On-Site Audit
Findings	CAR 01 was raised and closed successfully. For more details refer section 06
Conclusions	Assessment Team confirms that project activity follows the 7 years renewable crediting period, and this is first renewable crediting period

	with its duration is from 30/03/2017 to 29/03/2024 (7 years; both dates included). The start date of crediting period is the commissioning date of project which is verified by Commissioning certificate /21/ submitted by the project representative to VVB and registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/. So, it is concluded that this is first crediting period starting on 30/03/2017 and End date of crediting period is 29/03/2024 which as per the GS4GG principle and requirement v1.2/1/ and GS4GG validation and verification standard v1.0/5/ which is 29/03/2024. Hence, it is verified that crediting period number and its length is correct. However, a finding was raised by GS asking for clarification and the mail communication exchanged between Project representative and Sustaincert confirms that the crediting length as reported above is correct.

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

This is 3rd verification of 1st crediting period of the given project activity. No any FAR is found from preliminary review, to be closed, however two FARs found from performance review and other one from previous verification (FVR V03, dated: 16/08/2021 of MP: from 01/08/2018 to 29/02/2020 including both dates) which has been closed during this verification.

FAR#01: GS4GG Principles and Requirements- 5.1.39: An annual report shall be provided to GS for each monitoring year by the end of next calendar year for which verification is not completed. PP shall not delay the submission of Annual Report at the time of next verification.

Rectification: The annual report has been submitted on 06/12/2022 for the current monitoring period and further we have also submitted annual report for the next verification on 20/12/2023.

VVB Assessment: Verification Team confirmed that the Project Representative has submitted the Annual Report /42/ falls under the current monitoring period from 01/03/2020 to 31/12/2022 (both dates are inclusive), it is also found that PD also submitted the annual report of coming verification period which is available on GS Impact Registry. Hence the given FAR#01 is closed by the verification team.

The details of submitted annual reports are following;

1. Annual Report Dated: 27/06/2020 for 01/08/2018 to 29/02/2020
2. Annual Report Dated: 06/12/2022 for 01/03/2020 to 31/12/2022
3. Last Annual Report Dated: 20/12/2022 for 01/01/2023 to 31/12/2023

For the period 01/03/2020 to 31/12/2022 two annual reports were required as per GS4GG principles and requirements, an annual update reports must be provided for Projects that have achieved the Project Design Certification stage or have successfully transitioned to Gold Standard for the Global Goals. An annual report shall be submitted for each monitoring year by end of next calendar year for which verification is not completed.

However, for the vintage 2020, which has not yet been verified, the annual report should have been submitted by the end of 2020 but it was not submitted due to certain circumstances. Since the PD was serious towards verification therefore, the required procedure has been initiated for verification of project activity. During the delay period, the PD has continued to monitor all parameters which were validated and approved during the verification. Furthermore, PD submitted a deviation request form to Sustain Cert, which was subsequently approved by the board dated on 31/07/2024 and has been reviewed by VVB to close this FAR in the current monitoring period.

FAR#02 (From previous verification)

During the verification process physical site visit is not conducted, since the current monitoring period involves project design change. Hence in accordance with the guidance provided under paragraph 36 of VVS for PAs version 02.0, the verifying DOE shall check/review the project implementation (including project design change) in accordance with the approved PDD, during next verification of the project activity.

Rectification (given by PP): The physical site visit was conducted during the current monitoring period on 31/07/2023 to check/review the project implementation (including project design change) in accordance with the approved PDD. According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020.

VVB Assessment: Information regarding project design change is now incorporated by the PD in the final Monitoring Report; version 06 dated 17/10/2024. It is found correct and as per the actual implementation at the project site and in line with the PRC PDD version 7.0 dated 13/10/2020.

Moreover, there is no (00) FAR is raised during current verification for the next upcoming verification.

3.3 Post registration changes

Type of change(s)	**Temporary deviations from the registered Monitoring & Reporting Plan, methodology or standardised baseline.**

Description of change(s)	Not Applicable
Assessment of change(s)	Not Applicable
Opinion on change(s)	Verification Team confirms that there are no Temporary deviations from the registered monitoring & Reporting Plan, methodology or standardised baseline and they are in compliance and in-line with the registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/. Hence, this section is not applicable for the current monitoring period.

Type of change(s)	**Corrections**
Description of change(s)	**Correction 01:** In the registered transition document, there was a typographical error in section C.1 in the data/parameter table for SDG 13. The parameter is mentioned as "air quality" and data unit is mentioned as "CO_2 emission reduction and reduction in dust generation". But in actual SDG 13 is related to climate change as mentioned in other sections of the transition document. Therefore, PD has corrected the Data / Parameter table for SDG 13 under section D.2 of the monitoring report in the current monitoring period. **Correction 02:** In the registered PDD, there was typographical error related to the Combined Margin emission factor and the same has been identified during the previous monitoring period. The value of the parameter $EF_{grid,BM,y}$ under section B.6.2 and section B.6.1 "Step 5: Calculate the build margin (BM) emission factor" of the registered PDD version 3.0 was mentioned as 0.9258 tCO_2e/MWh which was a typographical error. Therefore, PD has corrected the same information to maintain the consistency in reporting the value for parameter $EF_{grid,BM,y}$ throughout the current monitoring report and the mentioned correction was done during the second verification and the same will be followed for subsequent verifications. Above changes do not impact the project's Additionality, Baseline, design, crediting period and applicability of methodology in any way.

Assessment of change(s)

Assessment for correction 01: VVB found that the correction done by the PD in section D.2 of the revised MR v4.0 is

Previous	**Updated**
1. Data/Parameter: Air Quality	1. Data/Parameter: Emission Reduction
2. Unit: Emission Reduction and Reduction due to implementation of project activity	2. Unit: tCO_2e
3. Description: In order to reduce dust emissions during the construction phase, the following dust suppression measures stipulated and implemented: • Spraying water and covering material trucks body to minimize dust • Reuse of water for sprinkling of unpaved roads. • Imposition of speed controls for vehicles and unpaved site roads	3. Description: Reduction in CO_2 emission reduction due to implementation of project activity

Verification Team found that the above updates are consistent with the registered transition PDD/18/ and it is acceptable as typographical error.

Assessment for correction 02: Verification Team found that correction is already done in the 2nd (previous) verification which is done by ESPL and Report No: GS.VER.20.17v01, dated: 11/03/2021. Hence, it is concluded

	that the value of EF $_{grid, BM,y}$ value is 0.9285 and it is correctly used in the current monitoring period in revised MR version 06 dated 17/10/2024. **E.4.2. Corrections** There is a correction in the value of the parameter $EF_{grid\ BM,y}$ as reported under section B.6.2 of the registered CDM PDD is identified and the validation report on post registration changes is submitted to UNFCCC /24/.
Opinion on change(s)	Verification Team confirms that the above two (02) corrections to the project information identified during the current monitoring period from the registered monitoring & Reporting Plan, methodology or standardised baseline and now, they are in compliance and in-line with the registered and GS Transition PDD v2.2/18/. As per the core document Design change requirements v1.1, dated 14/04/2023 para 8.1.1/4/, verification team confirmed the following; 1. The given correction did not affect the design of the project activity 2. It has no materiality impact on the applicability of the applied methodology, accuracy and completeness of the monitoring; 3. It did not impact the applicability and application of the applied methodologies and the other standard documents with which the project activity has been certified, additionality, scale and safeguarding and sustainable development impact. 4. The given project is not included in the positive list for demonstrating additionality as stated in the Tool 32: Positive list of technologies. The additionality of the given project is demonstrated and assessed using the Tool 01.

Type of change(s)	**Changes to the start date of the crediting period**
Description of change(s)	Not Applicable
Assessment of change(s)	Not Applicable
Opinion on change(s)	Verification Team confirms that there are no changes in the start date of crediting period. Start date of crediting period is 30/03/2017 as per the commissioning certificate/21/ and it is in compliance with the registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD

	v2.2/18/. Hence, this section is not applicable for the current monitoring period.

Type of change(s)	**Permanent changes from the design Certified registered monitoring plan, applied monitoring methodology or standardized baseline**
Description of change(s)	Not Applicable
Assessment of change(s)	Not Applicable
Opinion on change(s)	Verification Team confirms that there are no permanent changes has been done in the certified monitoring plan, applied methodology or applied standardised baseline and it is in compliance and in-line with the registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/. Hence, this section is not applicable for the current monitoring period.

Type of change(s)	**Changes to the project design of approved project activity**
Description of change(s)	There is a change to the project design that happened and in line with the para 241 (a) of the CDM Project standard version 2. PD has been reported the same below during the 2nd monitoring period under this crediting period. "The number of PV module for the model TP 312 series & TP 315 Series were reported 16,960 and 7,360 in the registered PDD version 3.0 but actual number of PV module commissioned for the model TP 312 series & TP 315 Series are 19,360 and 9,760 respectively. Thus, the total number of PV modules reported in the registered PDD was 72,960 but the number of actual commissioned PV modules are 77,760. Due to this change, the project DC capacity has been changed to 23.9976 MWp from 22.4928 MWp reported in the registered PDD. However, the change in the total number of modules does not alter the AC installation capacity of project which is 20 MW_{AC}. There is no change in the Project overall output inverter capacity mentioned in the registered PDD.

	The reason for the change is to meet contracted capacity, as per PPA section 4.4 "Right to Contracted Capacity & Energy", PP has to inject 41.18 MU at the max, if not injected the electricity in the contracted capacity range, then PP shall be penalized as per the PPA clause. So, to account the losses, CUF and grid availability, NOs of PV modules has been increased to ensure the reliability of supplying the Contracted Capacity & Energy as per PPA. The mentioned Changes to project design is as per PRC PDD version 7.0.
Assessment of change(s)	Verification Team found that actual number of PV module commissioned for the model TP 312 series & TP 315 Series are 19,360 and 9,760 respectively. Thus, the total number of PV modules reported in the registered PDD was 72,960 but the number of actual commissioned PV modules are 77,760. Due to this change, the project DC capacity has been changed to 23.9976 MWp from 22.4928 MWp reported in the registered PDD but do project AC capacity remains same. Therefore, it is concluded that there is no change in the Project overall output inverter capacity mentioned in the registered PDD. However, the given update is mentioned in the revised RCP PDD of next crediting period. The same has been verified through the PRC CDM PDD v07, dated: 13/10/2020. Screenshot Reference for evidence; **A.3. Technologies/measures** >> The project activity aims to harness solar energy through installation of PV with total installed capacity of 20 MWAC (corresponding to 23.9976 MWp). The solar PV power plant will have solar PV modules, inverters, transformers and other protection system and supporting components as under: **A. Solar PV modules:** **Module Supplier** / **Module Model** / **Capacity (p)** / **Number** / **Total Capacity (MWp)** TATA Power Solar Systems Ltd. — TP 303 series: 303 / 19520 / 5.91456 TP 306series: 306 / 9920 / 3.03552 TP 309series: 309 / 19200 / 5.9328 TP 312series: 312 / 19360 / 6.04032 TP 315series: 315 / 9760 / 3.0744 TOTAL CAPACITY: 23.9976 **B. Inverters:** **S.No.** / **Make** / **10 MW (Project – I)** / **10 MW (Project – II)** 1. Manufacturer: Sungrow Power / Sungrow Power 2. Model: SG2500 / SG2500 3. Rated Capacity: 2500 kVA / 2500kVA 4. No. of Inverters: 4 / 4 5 Rated Input Voltage (Max.Input Voltage): 1000V / 1000V **Version 11.0** **Page 4 of 39**
Opinion on change(s)	Verification Team confirms that the above changes to project design of approved project and it is in-line and compliance with registered GS and PRC CDM PDD v07 dated 13/10/2020.

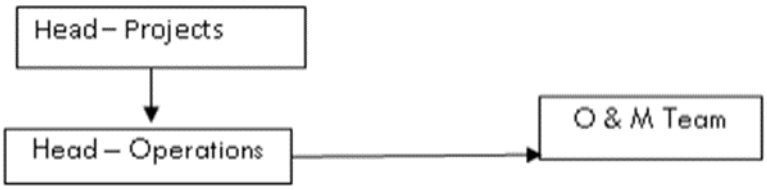
3.4 Description of monitoring system applied by the project

3.4.1 Compliance of monitoring plan with monitoring methodology

Assessment team confirms that the monitoring plan provided in the entire section C of the latest MR 06 dated 17/10/2024 for the current monitoring period/19/ is in accordance with the applied methodology ACM0002; Version 17.0/12/ and, the approved standardized baseline that is applied by the registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.

The monitoring plan for the 20MW$_{AC}$ plant by Janardan Wind Energy Pvt. Ltd. (JWEPL) is developed in accordance with the modalities and procedures for CDM project activities and is for grid-connected solar power project hence applied the methodology ACM0002, v17.0 /12/ which is located at Sanwreej village of Phalodi tehsil in Jodhpur district of Rajasthan state in India. The monitoring plan provides details about the organization responsible for monitoring, the parameters to be observed, the monitoring methods, quality assurance measures, quality control procedures, as well as how data will be stored and archived. The primary authority and accountability for tasks such as data registration, monitoring, measurement, reporting, and data review lies with the (PD).

The organizational structure for data monitoring, collection, data archiving and calibration of equipment for this project activity is shown below:



Responsibilities of Head - Projects: Tracking and reviewing the overall functioning and maintenance of the project activity from Head (Operations). Head (Operations) will be reporting Head (Projects).

Responsibilities of Head – Operations: Overall functioning of the project activity and Coordinating with the O & M Team for the proper functioning of Project activity. He will be reporting to Head (Projects).

Responsibilities of O & M Team: O & M team is responsible for Operations and Maintenance related issues, they are also responsible for day-to-day data collection and monitoring, ensures completeness and reliability of data (calibration of equipment).

Data Measurement: Projects activity comprises of installation of 4 Energy meters, 2 Energy meters (1 main meter (RJB90188) and 1 check meter (RJB90189) for project I 10 MW) at project site PSS end and 2 Energy meters (1 main meter (RJB90190) and 1 check meter (RJB90191) for project I 10 MW)

at substation GSS end. Similarly, there are 2 Energy meters (1 main meter (RJB90193) and 1 check meter (RJB90194) for project II 10 MW) at project site PSS end and 2 Energy meters (1 main meter (RJB90195) and 1 check meter (RJB90196) for project II 10 MW) at substation GSS end.

The export and import energy were measured using Main & Check meters installed at Grid Sub-station. Authorized officer of NVVN in the presence of representative of PP took Export & Import readings of Main & Check meters on monthly basis. The meter reading was taken jointly and signed by the representatives of the NVVN and PP. Based on the readings, invoices/ monthly bills was raised by PP. These invoices and monthly bills are used for cross checking the meter readings taken for the respective project activity.

The Project representatives are available during meter reading, the calculations of net electricity supplied to grid is completely under purview of (SEB/DISCOM officer) NTPC Vidyut Vyapar Nigam Ltd. In addition, accuracy class of meters and calibration frequency is under purview of SEB/DISCOM officer and Project owner do not have any control on it. Project owner gets the monthly credit report from where net electricity supplied to grid is obtained and used for emission reduction calculations.

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:

D = (A/B) *C

Where;

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

B = Number of days of the billing period/ month which was not matched with the monitoring period.

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

Data collection and archiving

Export & Import readings from main & check meter are collected under the supervision-authorized representatives of PP. The net electricity supplied to grid are calculated based on export & import readings. Export and Import data would be recorded and stored in electronic &/or Paper. The records are checked periodically by the Head (Operations) and discussed thoroughly with the O & M Team. The period of storage of the monitored data will be 2 years after the end of crediting period or till the last issuance of VERs for the project activity whichever occurs later. Both the main and check meter of both the project I & II are found within the acceptable limits of accuracy functioning properly.

Emergency preparedness:

The project activity does not result in any unidentified activity that can result in substantial emissions from the project activity. No need for emergency preparedness in data monitoring is visualized. However, In the event that the Main meter is not in service as a result of maintenance, repairs or testing, the Check meter will be used for readings. In the unlikely event of failure of both Main meter and check meter installed at grid sub-station, is found to be outside the acceptable limits of accuracy or faulty or not functioning properly, it will be repaired or replaced simultaneously and the meters are replaced immediately by the spare meter kept available at the site and the export & import readings from Main & Check Meter installed at the PSS end will be used for monitoring of net electricity exported to the grid.

During, the current monitoring period the main and check meter were operating in the acceptable limits of accuracy at site meters as per calibration details (DCPL/CAL/22-23/758 and (DCPL/CAL/22-23/762) /29/. VVB confirmed this during site visit/30/ by physically inspecting the energy meters installed at the substations and by interviewing the personnels at substation and site in charge.

Personnel training: In order to ensure a proper functioning of the project activity and a properly monitoring of emission reductions, the staff (team) is trained. The plant helpers are trained in equipment operation, data recording, reports writing, operation and maintenance and emergency procedures in compliance with the monitoring plan. During this current monitoring period PD conducted and inclusive training program of the site personnels at the site. Total No. of Trainings given to the employees during current monitoring period of 1036 days are **12 Trainings.** PD has submitted training records and attendance sheet of trainings/23/ conducted to VVB which confirms the participation of employees in training programs arranged at the site and also a training calendar to verify the frequency of trainings at the site. VVB also confirmed during onsite visit about the training programs through personnel interview and focussed group discussions with site personnels/33/ working at site and found that monitoring plan was in place as per the registered GS Transition PDD and GS passport/18/.

3.4.2 Compliance of monitoring activities with the registered Monitoring plan

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

Verification Means	Desk Review of Final updated MR/19/ and its corresponding ER sheet/20/, supporting documents (section 4) and registered GS

<table>
<tr><td></td><td>passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and On-site Audit.</td></tr>
<tr><td>Findings</td><td>No finding raised for this section</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>$EF_{OM,y}$</td><td>tCO_2e/MWh</td><td>Operating Margin CO_2 emission factor in year y</td><td>0.9941</td></tr>
<tr><td>$EF_{BM,y}$</td><td>tCO_{2e}/MWh</td><td>Build Margin CO_2 emission factor in year y</td><td>0.9285</td></tr>
<tr><td>$EF_{CM,y}$</td><td>tCO_{2e}/MWh</td><td>Combined Margin CO_2 emission factor in year y</td><td>0.9777</td></tr>
</table>
Assessment Team concludes that the ex-ante parameter of the project activity is in accordance with the monitoring plan and meets the requirements of the applied monitoring methodology ACM0002 v17.0/12/ and “Tool to calculate the emission factor for an electricity system, version 07.0.0”/14/. Hence, it is confirmed that the values used for the installed capacity before project’s implementation (fixed ex ante for the 1st crediting period) for calculation of emission reduction is consistent with the GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and has been correctly applied in updated MR v03/19/. The values are obtained from the CO_2 Baseline Database for Indian Power Sector” version 11.0, /36/ published by the Central Electricity Authority, Ministry of Power, Government of India as mentioned in final updated MR /19/ and verified as per registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.
Assessment Team has cross verified the CEA database /36/ and confirmed the same with registered PD, hence the above ex-ante parameters and their values are in-line with the registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.</td></tr>
</table>

3.4.2.2 Data and Parameters monitored

<table>
<tr><td>Verification Means</td><td>Final updated MR/19/ and its corresponding ER sheet/20/, supporting documents (section 4) and registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and On-site Audit.</td></tr>
<tr><td>Findings</td><td>CL 02 was raised and resolved successfully.</td></tr>
<tr><td>Conclusions</td><td>Assessment Team assessed the data and parameters monitored for the current monitoring period are mentioned in table below:

Details of monitored parameter
<table>
<tr><th>Parameters</th><th>Value Applied</th><th>Relevant SDG Indicator</th><th>Assessment</th></tr>
<tr><td>$EG_{facility, y}$ (Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh))</td><td>94,492.65[16] MWh</td><td>7.2: By 2030, increase substantially the share of renewable energy in the global energy mix</td><td>Based on the site visit observation, JMRs & Invoices /26/ and single line diagram/40/; the verification team has found that 4 Energy meters, 2 Energy meters (1 main meter (RJB90188) and 1 check meter (RJB90189) for project I 10 MW) at project site PSS end and 2 Energy meters (1 main meter (RJB90190) and 1 check meter (RJB90191) for project I 10 MW) at substation GSS end. Similarly, there are 2 Energy meters (1 main meter (RJB90193) and 1 check meter (RJB90194) for project II 10 MW) at project site PSS end and 2 Energy meters</td></tr>
</table></td></tr>
</table>

[16] The value is revised as the claimed monitoring period starts from 01/08/2020 instead of 01/03/2020

					(1 main meter (RJB90195) and 1 check meter (RJB90196) for project II 10 MW) at substation GSS end. The export and import energy were measured using Main & Check meters installed at Sub-station. Authorized officer of NVVN in the presence of representative of PP took Export & Import readings of Main & Check meters on monthly basis. The meter reading was taken jointly and signed by the representatives of the NVVN and PP. Based on the readings, invoices/26/ monthly bills was raised by PP. These invoices and monthly bills are used for cross checking the meter readings taken for the respective project activity. The Project representatives are available during meter reading, the calculations of net electricity supplied to grid is completely

					under purview of (SEB/DISCOM officer) NTPC Vidyut Vyapar Nigam Ltd. In addition, accuracy class of meters and calibration frequency is under purview of SEB/DISCOM officer and Project owner do not have any control on it. Project owner takes the monthly meter reading report provided by SEB. The Net electricity supplied to the grid by the project activity will be calculated as a difference of electricity exported to the grid, electricity imported from the grid obtained from Monthly Meter reading reports provided by SEB as per below equation: $EG_{facility,y} = EG_{Export} - EG_{Import}$ Cross checking: Quantity of net electricity supplied to the grid will be cross checked from the invoices/monthly bills/26/.

					Assessment team has checked the monthly data (export and import) /26/ and crosschecked with the invoices /26/ and found that values used in the MR /19/ and ER sheet /20/ are correct and consistent. Hence the verification team was able to conclude that this parameter is being monitored and recorded as per the approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/ monitoring plan. **Monitoring equipment:** Monitoring equipment details have been verified from the site visit observations, JMRs /26/, and photos of site visit /30/, and meter calibration certificate/29/ and found consistent with the MR /19/. There was no meter change during this monitoring period. **Is accuracy of the monitoring equipment as**

					stated in the GS Passport and GS Transition PDD? Yes, the accuracy of the energy meters is 0.2s as verified from site visit observation /34/ and meter calibration certificate/29/ which is in compliance with the approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/, monitoring plan and hence accepted by VVB. **Calibration frequency/interval:** As per the approved GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, monitoring plan, and CEA 2006 section 18, all interface meters and consumer meters shall be tested at least once in five years. So, as per the calibration cum connectivity report all energy meters are calibrated on 02/06/2019 and their calibration validity is till 01/06/2024. **Is calibration validity for this entire monitoring period:**

					Yes, the calibration is valid for the meters as per the registered monitoring plan up to 01/06/2024. **QA/QC procedure**: The verification team has accepted the measurement methods, aggregation approach and data used for emission reduction calculations.
		Air Quality (CO2 emission reduction and reduction in dust generation)	92,384[17] tCO_2e	13.2: Integrate climate change measures into national policies, strategies and planning	Assessment Team has checked the GHG emission reduction calculation /20/ for this monitoring period and found the emission reduction value to be correct for this monitoring period. This parameter is computed by multiplying the baseline electrical energy ($EG_{facility,y}$) expressed in MWh (megawatt-hours) of electricity generated by the renewable power unit by an appropriate emission factor. The calculation is clearly presented in the

[17] According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit Once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020 instead of 01/03/2020 so total 92,384 VERs claimed instead of 110,573 VERs.

					Emission Reduction Sheet/20/, and it indicates that the emission reduction achieved during the current monitoring period is 92,384 tCO_2e. The assessment team has reviewed this information and confirmed its accuracy. Consequently, the emission reduction calculation is considered correct and in compliance with the necessary standards. As per the approved GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, emission reductions estimated as 84,385 tCO_2e for current monitoring period. However, the actual emission reductions achieved for this monitoring period is 92,384 tCO_2e which is only 9.48% higher than the estimated ERs. Project Developer stated that net electricity generated is high due to the variation in the Solar radiation's availability during the current monitoring period,

					which is a natural uncontrolled phenomenon and may vary. It is beyond the control of PD. VVB accepted this justification because the difference is only (+9.48%) only between the actual and estimated generation, which is within the additionality (20.53% as per the registered PDD) for current monitoring period which is 22.74% and found it has no impact on the project additionality.
		Quantitative employment and Income generation	34 Permanent employees: 6 Temporary employees: 28 Male: 34 \Female: 00 **INR** 20,603,3333[18]	SDG 8.5.1: Decent Work and Economic Growth	34 employees are working for the project activity i.e., 34 jobs have been created under the project activity and all are male. Further the employees can be classified in following categories: Permanent Employees: 6 Temporary Employees: 28

[18] The income generation mentioned is at the group level, and is the total income generated in the current monitoring period, The INR mentioned here signifies the total income generated for the employees in the monitoring period. The income generation mentioned is at the group level, and is the total income generated in the current monitoring period

					<table><tr><td>Skilled Employees</td><td>6</td></tr><tr><td>Unskilled Employees</td><td>28</td></tr></table> <table><tr><td>Male Employees</td><td>34</td></tr><tr><td>Female Employees (Due to Remote Location female employees do not prefer to work)</td><td>00</td></tr></table> The same has been verified from the site visit inspection/33/, attendance register available at the site and employment records/24/ submitted by Project representative. The skilled employees work for solar PV implementation, operating and maintenance of the plant. The unskilled worker will be used for day-to day basis for loading and unloading and sweeping activities, module cleaning and grass cutting. As per the onsite discussion income to all unskilled

					workers are made on day-to-day basis in line with minimum wages. Total income generation in the current monitoring period is INR 20,603,333 including O&M cost. The assessment team found this information acceptable and verified Training Attendance sheets & Employee Records/23/ submitted by Project representative. Thus, verification team was able to confirm that quality of, quantitative employment and income generation has improved due to the project activity. And as per the independent surfing of Indian Minimum Wage Act: 1948 website found it in compliance. [19]
		Quality of employment	10	SDG 8.5: (Decent	As per the onsite inspection/33/ and

[19]It is the total income generated in the current monitoring period for all the employees
Approximate calculations: -
20,603,333/883= 23,333.33 of all employees per day
For per employee-
23,333/34 = 686.27 approx. (per day wages)
which is more than the minimum wage criteria and also more than the per day wage mentioned in the transition document.
Therefore, it is in compliance with the with local or national govt policies on minimum wages based on skill levels. Moreover, wages are variable as per the type of employment. **The income generation mentioned above is at the group level.**

			Work and Economic Growth)	training records /23/ provided by Project representative along with the training schedule, VVB confirms that total 10 trainings are given to the employees as per the requirement in the current monitoring period. The assessment team found this information acceptable and verified it using Training Attendance sheets submitted by Project representative. Thus, verification team confirms that the quality of employment has improved due to the project activity.

Assessment Team assessed the SDG Indicator (SDG 3.8) which is considered under data and parameters monitored for the current monitoring period as mentioned in table below but it is not claimed by PD:

SDG Indicator (SDG 3.8): Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

Human and institutional capacity	0	SDG Indicator (SDG 3.8): Achieve universal health coverage, including financial risk	As per the onsite inspection/33/ and interviews it was confirmed that "No CSR activities has been conducted in the

			protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	current monitoring period". Also, this parameter is only mentioned for reporting purpose and not claimed by PD.

As per para 360 to 361 of CDM VVS for project activity version 03.0 /15/, the assessment team concludes that the monitoring of the project activity is being carried out in accordance with the GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, monitoring plan and meets the requirements of the applied monitoring methodology /12/. The adequacy and compliance of the registered monitoring plan /18/ in the MR can be concluded as conformed. The flow of the information from the point of generation up to reporting has been reviewed and found to be correct and appropriate meeting the requirements of the applied methodology/12/.

3.4.2.3 Implementation of Sampling Plan

Verification Means	No Sampling Plan applied for the project activity. Therefore, this section is not applicable as per the registered PDD, project developer did not implement sampling
Findings	Not applicable
Conclusions	Not applicable

3.4.3 Compliance with the calibration frequency requirements for measuring instruments

Verification Means	Verification Team has checked whether the calibration of the measuring equipments that have an impact on the claimed GHG emission reductions is conducted by the project developer at the frequency specified in the monitoring plan/18/. As per the GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and Power Purchase Agreement/31/ with the SPD (Solar Power Developer-

Janardan Wind Energy Pvt. Ltd. (JWEPL)) as first party and SECI (Solar Energy Corporation of India Limited) as a second party of the second part, the meters (main meter, check meter) are calibrated once in per 5 years as per CEA guidelines[20] 2006 and calibration certificate /29/.

The monitoring equipment's have been installed in the project activity according to registered monitoring plan /18/.

	Details	Make	Serial No.	Accuracy class	Calibration Date	Calibration validity[21]
132 KV GSS Billing Meter (Project - I)	Main Meter (Plant End)	Secure	RJB90188	0.2 S	02/06/2019	01/06/2024
	Check Meter (Plant End)	Secure	RJB90189	0.2 S	02/06/2019	01/06/2024
	Main Meter (GSS End)	Secure	RJB90190	0.2 S	02/06/2019	01/06/2024
	Check Meter (GSS End)	Secure	RJB90191	0.2 S	02/06/2019	01/06/2024
132 KV GSS Billing Meter (Project -II)	Main Meter (Plant End)	Secure	RJB90193	0.2 S	02/06/2019	01/06/2024
	Check Meter (Plant End)	Secure	RJB90194	0.2 S	02/06/2019	01/06/2024
	Main Meter (GSS End)	Secure	RJB90195	0.2 S	02/06/2019	01/06/2024
	Check Meter (GSS End)	Secure	RJB90196	0.2 S	02/06/2019	01/06/2024

Calibration is done by the DCPL (Darsh Calibration Pvt. Ltd, Jodhpur, NABL Accredited calibration laboratory, CC-070 in Electro-Technical)/29/.

[20] https://cea.nic.in/wp-content/uploads/2020/04/review_regulation.pdf

[21] As per registered PDD & CEA guideline the calibration frequency is once in 5 years however DISCOM is carrying out calibration once in a year which is not under the control of PP.

Findings	No finding raised for this section
Conclusions	As per 365 to 370 of CDM VVS for project activity version 03.0/15/, the verification team confirms that the calibration frequency is in line with the monitoring plan mentioned in the GS passport version 03, dated: 28/02/2018/18/, and GS Transition PDD v2.2/18/. During the verification assessment of project activity, accuracy of all metering equipment's has been checked and found appropriate by assessment team during onsite visit/34/. The installation and working conditions of the meters were checked during the site inspection/30/ and were found to be satisfactory as compared to the provision of calibration/testing frequency, prescribed under GS Transition PDD v2.2/18/. Verification is done in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology/12/. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. Calibration is performed once in every five years as per CEA guideline/36/. Calibration frequency was cross verified via calibration certificates and was found to be in line with the registered GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and PPA /28/. Calibration is conducted by State Electricity Board and Calibration records are maintained at the plant. The data is cross-verified against values of sold electricity in the joint meter reading statement issued by the NTPC Ltd. The meter is in control and supervision of (SEB/DISCOM officer) NTPC Vidyut Vyapar Nigam Ltd and are calibrated only. Calibration is performed by an NABL accredited Laboratory i.e., DCPL (Darsh Calibration Private limited as per the calibration points of Indian standard with Certificate Number: DCPL/CAL/19-20/306/32/ The metering system comprises of main and check meter. In the event that the main metering system is not in service due to maintenance, repair or testing, the reading is obtained from the check meter. The calibration records are kept at the plant site by the PD for record purpose. If local/national standards or the manufacturer's specifications are not available, international standards shall be used but there are national standards (CEA guidelines) available so national standards is followed. PP has considered CEA order dated 17-March-2006; which prescribes under the para 18(b) that "all the meters shall be tested once in five years." Thus, validity of the calibration is considered for five years. Hence the calibration frequency in registered GS passport version 03, dated:

	28/02/2018/18/, GS Transition PDD v2.2/18/, the frequency is once in 05 years which is deemed acceptable to VKU assessment team.

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	**SDG 7: Affordable and Clean Energy** The contribution to SDG 7 is defined as the produced electricity by the solar power plant. Total amount of electricity produced in the baseline is 0 MWh. **SDG 8: Decent Work and Economic Growth** The project leads to employment opportunities which would not have been possible in the baseline scenario. So, the baseline value is 0. **SDG 13: Climate Action** As per the approved GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, baseline reductions by the project activity (BEy) is calculated as follows: Baseline emissions include only CO_{2e} emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants. The baseline emissions are calculated as follows: $\boldsymbol{BE_y = EG_{PJ,y} \times EF_{grid,CM,y}}$ Where: BEy = Baseline emissions in year y (tCO_2/yr) $EG_{PJ,y}$ = 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) $EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of

	"TOOL07: Tool to calculate the emission factor for an electricity system" (tCO_2/MWh)/14/ **Calculation of $EG_{PJ,y}$** The project activity is the installation of solar projects, and it is a green field project. So the formula in option (a) i.e., greenfield plants is used to calculate the value of $EG_{PJ,y}$. In accordance with para 41 of the applied methodology: **$EG_{PJ,y} = EG_{facility,y}$** Where: $EG_{PJ,y}$ = 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). $EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr). $EG_{facility,y}$ is monitoring parameter and already verified under section 3.4.2.2. of this report. $EF_{grid,CM,y}$ is the ex-ante parameter and already verified under section 3.4.2.1 of this report. Verification team has verified the calculation of BEy under the ER calculation sheet /20/ and found in compliance with the approved GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and the applied methodology /18/. **Therefore,** **$BEy = EG_{facility,y} * EF_{grid,CM,y}$.** BEy = 94,492.65 MWh[22]* 0.9777 tCO_2e/MWh BEy = 92,384 tCO_2e (Rounded down) According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit Once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from

[22] Round Down 568,803 MWh (Rounded down)

01/08/2020 instead of 01/03/2020 so total 92,384 VERs claimed instead of 110,572 VERs.

The verification team assessed whether the data and calculations of each SDG from the approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/, is correct. The verification team has checked whether calculations of SDGs have been carried out in accordance with the formulae and methods described in the approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.

The calculation, applied formulae and the method for calculation of SDGs are in accordance with the approved GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and are in line with the requirements of the applied methodology /12/. The formulae and the methods referred in the MR /19/ and the emission reduction calculation spread sheet /20/ for estimation of SDGs complies with the corresponding formulae and methods in the approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.

Hence SDGs for this monitoring period are as follows.

SDG	SDG Impact	Baseline Estimate	Project Estimate	Net Benefit
13	Climate Action (Mandatory)	92,384 tCO_2e	0	92,384 tCO_2e
8	Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all	0	10 Trainings 34 Employees INR 20,603,333	10 Trainings 34 Employees INR 20,603,333
7	Ensure access to	0	94,492.65MWh	94,492.65MWh

			affordable, reliable, sustainable and modern energy for all			
Findings	CAR #02 was raised during desk review which is successfully closed, for more details refer section 06					
Conclusions	Project Developer calculated the Baseline emissions as per applied methodology ACM0002 v17.0/12/. As per para 372 and 373 of CDM VVS for project activity version 03.0 /15/, Verification team concludes that the calculation provided in the final monitoring report /19/ and its corresponding emission reduction spread sheet /20/ are complete and reflect all the requirements of the registered monitoring plan /18/ and: a) All the monitored data pertaining to SDGs as required by the registered monitoring plan was available to Project Representative, the same has been verified by the verification team. b) All the formula used for the SDGs, was in line to the registered monitored plan /18/. c) The ex-ante parameter correctly sourced from the approved GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/ and was found to be appropriate and justified.					

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

Verification Means	**SDG 7: Affordable and Clean Energy** Following table mentions the "Quantity of net electricity generation supplied by the project plant/unit to the grid in year y" which is already verified under section 3.4.2.2 of this report. **Period** | **$EG_{facility,y}$ (MWh)** 01/03/2020 to 31/12/2022 | 94,492.65 MWh **SDG 8: Decent Work and Economic Growth** The monitoring parameter for the SDG 8 are Number of trainings provided to employees & O&M staff,

Cost spent for O&M & Number of O&M staffs involved in the project. During the project scenario, the following is achieved.

During Monitoring period - 01/03/2020 to 31/12/2022 (both dates are included)

1. Quality of Employment – 10 training
2. Quantitative employment and income generation - 34 employees & INR 20,603,333.

These parameters are already crosschecked from the training records/26/, O&M contract/30/ & employment records/27/ in above section of this report.

SDG 13: Climate Action

Baseline Emissions:
As per the GS passport, dated 28/02/2018, V03/18/, GS Transition PDD v2.2/18/, baseline reductions by the project activity (BEy) is calculated as follows:

$BEy = EF_{grid,CM,y} \times EG_{PJ,y}$
BEy = 94,492.65 MWh * 0.9777 tCO_2e/ MWh
BEy = 92,384 tCO_2e (Rounded down)
But,
According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit Once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020 instead of 01/03/2020 so total 92,384 VERs claimed instead of 110,572 VERs.

This parameter is already assessed in section 3.5.1 above.

Project Emissions:
As per the GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and applied methodology para 31/12/, Project activity emissions (PEy) are calculated using the following equation:

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

Where:

	PEy - Project emissions in year y (tCO2e/yr) $PE_{FF,y}$ - Project emissions from fossil fuel consumption in year y (tCO2e /yr) $PE_{GP,y}$ - Project emissions from the operation of dry, flash steam or binary geothermal power plants in year y (tCO2e/yr) $PE_{HP,y}$ - Project emissions from water reservoirs of hydro power plants in year y (tCO2e/yr)" •The project is not a geothermal or solar thermal project, which also uses fossil fuels for electricity generation. Therefore, $PE_{FF,y} = 0$ •The project is not a geothermal project. Therefore, $PE_{GP,y} = 0$ •The project is not a hydro project. Therefore, $PE_{HP,y} = 0$ Therefore, in line with applied methodology, project emissions for the project activity are 0 tCO_2e. **Leakage Emissions:** As per para 53 of section 5.6 of the approved consolidated Methodology ACM0002 (Version 20.0): No leakage emissions are considered in the project activity. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g., extraction, processing, and transport). Since the emissions sources are small, it is neglected, thus, **$LE_y = 0$**. The verification Team assessed that whether the data and calculations of each SDG from the approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/ is correct. The verification team has checked whether calculation of SDGs have been carried out in accordance with the formulae and methods describe in the approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/. The calculation, applied formulae and the method for calculation of SDGs are in accordance with the approved GS passport version 03,

dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and are in line with the requirements of the applied methodology/12/. The formulae and the methods of the approved GS passport version 03, dated: 28/02/2018/18 and GS Transition PDD v2.2/18/.

Hence, SDGs for this monitoring period are as follows:

SDG	SDG Impact	Baseline Estimate	Project Estimate	Net Benefit
13	Climate Action (Mandatory)	92,384 tCO_2e	0	92,384 tCO_2e
8	Promote sustained inclusive and sustainable economic growth, full and productive employment and decent work for all	0	10 Trainings 34 employees INR 20,603,333	10 Trainings 34 employees INR 20,603,333
7	Ensure access to affordable, reliable, sustainable and modern energy for all	0	94,492.65MWh	94,492.65MWh

Findings	No findings raised for this section
Conclusions	As per para 372 and 373 of CDM VVS for project activity version 03.0 /15/, Verification team concludes that the calculation provided in the monitoring report /19/ and emission reduction spread sheet /04/ are complete and reflect all the requirements of the registered monitoring plan /18/ and:

	a) All the monitored data pertaining to SDGs as required by the registered monitoring plan was available to Project Representative. PP has calculated the SDGs conservatively as per the Approved GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/ which is accepted to the verification team. b) All the formula used for the SDGs, was in line to the registered monitored plan /18/. c) The ex-ante parameter correctly sourced from the approved GS passport version 03, dated: 28/02/2018/18/, GS Transition PDD v2.2/18/, and was found to be appropriate and justified.

3.5.3 Calculation of Leakage

Verification Means	**Desk Review and Onsite Audit** **Activity Performed:** The assessment team verified Desk Review of Final revised MR /19/and its corresponding ER sheet/20/, supporting documents (section 4) and registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/, applied methodology i.e., ACM0002 Methodology version 17.0/12/
Findings	No findings raised for this section
Conclusions	As per Paragraph 53 of the consolidated methodology ACM0002 version 17.0 /12/, there is no leakage emission through the renewable project electricity generation. So, it concluded that Leakage is Zero (00) for the given solar project activity.

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	92,384 tCO_2e	0	92,384 tCO_2e	VVB concludes that the values are correct and compliance as per the verification done in above sections of this report.
8 Decent Work and Economic Growth	0	10 Trainings, 34 Jobs, and INR 20,603,333	10 Trainings 34 Jobs, and INR 20,603,333	
7 Affordable and Clean Energy	0 MWh	94,492.65 MWh	94,492.65 MWh	

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

SDG and SDG Targeted	Values estimated in ex ante calculation of registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/, during this Monitoring period	Actual values achieved during this monitoring period	Conclusion
13 Climate Action (Mandatory)	84,385 tCO_2e	92,384 tCO_2e	Assessment team conducted desk review and an on-site inspection/33/ and verified the Net Electricity generation reported in the ER sheet /20/ and MR /19/ for current monitoring period via JMRs and invoices /26/ raised monthly. The employment is provided to 34 employees and they are working and part of the project activity since starting, during the time of validation 37 employees were envisaged but those numbered employees were not hired, thus there are 34 employees have been employed in this monitoring period, which has been cross verified with the employment record/24/ submitted by PD. Total employment generated and trainings conducted in the current monitoring period were verified
8 Decent Work and Economic Growth	1 Training 37 Employees Income (The income to all the unskilled workers are made on day to day basis in line with minimum wage requirements)	10 Trainings 34 Employees INR 20,603,333 Income	
7 Affordable and Clean Energy	86,311.44 MWh	94,492.65 MWh	

			via employment records/24/, and training records /23/ and were found to be correct.

3.5.6 Remarks on difference from estimate value in registered PDD

Verification Means	Final revised MR /19/and its corresponding ER sheet/20/ GS Transition PDD v2.2/18/, Supporting documents (section 4) and Onsite Audit
Findings	CL#01 is closed successfully
Conclusions	The ex-ante estimated value of the emission reductions for the monitoring period as per the registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/, is 84,385 tCO_2e for the claimed monitoring period and the actual emission reductions achieved for the claimed monitoring period is 92,384 tCO_2e. In section 3.4.2.2 of this report, justification assessed by the verification team of this report. Hence, remark on difference is acceptable as the difference between the actual and estimated is (+9.48%) which has no impact on the project additionality. As per the registered PDD the estimated PLF is 20.53% and as per the actual generation during the current monitoring period, PLF is 22.74% which is 10.77% higher as compared to estimated PLF. Although the IRR will breach the benchmark value at a PLF variation of more than 12.77%. As the percentage variation is less than the breaching value hence with the actual PLF also the IRR is not breaching the benchmark value. The breaching value of PLF is 12.77% hence the current increase in PLF is within the range.

3.6 Safeguards Reporting

It is confirmed that there is no monitoring any safeguarding principle as per the registered transition PDD v2.2 dated 22/03/2018 section B.1 as per the independent desk review. Hence it is concluded that this section is not applicable for given project activity for the current monitoring period.

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.

Assessment Team finds that Project Representative follows the continuous grievance mechanism as per the validated stakeholder consultation report, and onsite visit/35/ interviewing the end users, Project Developer/33/. As per onsite audit and interview, assessment team also confirms the following;

1. Stakeholders are aware of the grievance mechanism system and know how to report their grievances.
2. Project Developer has maintained a register to record any grievances and feedback for the project activity. It is placed appropriately at a publicly accessible location (security room at main gate) at plant site where local stakeholders can provide their feedback.
3. This location is also conducive to continuous and regular checks for stakeholder comments. The grievance register is being continuously monitored and addressed through the grievances cell on regular basis. PD has also provided phone number and contact details of responsible person or technician to end users in service book for ease of communication.
4. And, End Users have positive feedback on considering the grievance by responsible person of project representative.

As per checking the grievance register photograph/25/ submitted by PD, **no grievances** were found during current monitoring. Therefore, section G.1 of final monitoring report is correct and in compliance with the GS4GG principle and requirementv1.2/01/ and stakeholder consultation and engagement requirement v2.1/02/.

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

During onsite inspection assessment Team verified visitor register cum grievance register /25/ placed on site and conducted personnel interviews /33/ and concluded that there was 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 **"20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** is in compliance with the 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 standalone project activity of validation and verification standard v1.0 /5/ and there is no legal challenge that has arisen claiming a project is not in compliance with regulation, during certification process as per validation report corresponding to registered GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/, Verification Team also verify it independently by surfing the sites of https://www.livelaw.in/ (LiveLaw) and https://indiankanoon.org/ (Indian Kanoon)

for application of project activity and ownership of project and found these information is compliance with law and regulation of host country India.

3.8 Quality of evidence to determine emission reductions

When verifying the reported emission reduction, VKU ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures in MR/19/ and ER/20/. All source documents that form the basis for assumptions and other information underlying the GHG data are shown in above sections.

When assessing the audit trails, VKU also examined:

1. Whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period from 01/03/2020 to 31/12/2022 (both dates included). However, ERs are calculated from 01/08/2020 to 31/12/2022 (including both dates) due to late onsite audit, as per the section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit Once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020.
2. The source and nature of the evidence, if comparable information was available from sources other than that used in the monitoring report/19/, VKU cross-checked the monitoring report against the other supporting documents or evidences given by the PP to VVB stated in section 5 to confirm that the stated figures were correct, accurate, conservative in nature and transparent.

All records needed for monitoring are archived in line with the requirements of the registered monitoring plan. No significant, lack of evidence and missing data were detected during current verification. Hence, the verification team confirms that the monitoring system ensures required quality of the monitoring system to ensure the quality of the monitored data. All internal data are subjected to QA/QC measures.

VKU is of the opinion that this method of calculation of emission reductions is accurate and results in conservative estimation of emission reduction and is line with the applicable GS4GG principles and requirements/1/ and CDM registered methodology ACM0002 version 17.0 /12/.

There are total 02 CARs, 02 CLs and 00 FARs are raised during this monitoring period and assessment team confirmed that the all findings are closed.

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

The verification team attests to correctness of the formulas and methodologies used to compute baseline emissions as per GS4GG Validation and Verification Standard V1.0 /5/. Applied default values, emission factors, and assumptions in the calculations are all reasonable. Verification team attests to the correctness of formulas and methodologies used in calculation of baseline emissions. Assumptions, emission factors and default values applied in the calculations are justified.

SDG Indicators during this monitoring period from 01/03/2020 to 31/12/2022 is:

SDG 13- Actual emission reduction achieved is 92,384 tCO_2e calculated by multiplying the unit of MWh produced by an emission factor. The value of emission factor is verified from the GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.

SDG 7- Affordable and Clean Energy, total 94,492.65 MWh

SDG 8- Decent Work and Economic growth- 10 Trainings, 34 Employees and INR 20,603,333.

The verification consisted of the following phases:

- **Document Review:** Relevant documents, such as the verification report, monitoring plan, methodology, GS passport, GS Transition PDD, QA/QC procedures and supporting documents were thoroughly reviewed.
- **On-Site 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 were addressed and resolved.

In this monitoring period, **CAR: Corrective Action :02**, **CL: Clarification Request :02** were raised and resolved. This is 3rd verification of the project activity. No any FAR is found from preliminary review, validation to be closed, however one FAR is found from performance certification which has

been closed during this verification and the detailed assessment is provided in the section 3.2 Remaining Issues (FAR(s) from validation or previous verification) of this report**.** It is also confirmed that no FAR (00) is raised during this verification.

The Project is not rejected by other GHG programs. A declaration for the same is also submitted by the project developer/39/. Also, assessment team independently verified with the following registries and checked projects from the Project Developer matching the same project design and found that no such project either exists or were rejected by the registries.

Description of the findings raised during verification is provided in Section 6 of this verification report. There is no FAR raised during current monitoring period for next verification.

Verification Team also confirmed that revised SDG Impact tool submitted by the PD is in latest version 1.3 of SDG tool template and all given information provided in the SDG tool corresponding to MR and ER sheet for the current monitoring period is correct and in compliance.

3.11 Verification Opinion

The verification team confirms that the evidence is of sufficient quantity, appropriate quality and reliable. The reported values, notation, units and sources in the monitoring report for all the monitoring parameters have been cross checked with the emission reduction sheet/20/ and monitoring report/19/. During the course of verification, the data submitted by Project Developer/Project Representative was cross verified with the values mentioned in the emission reduction sheet and monitoring report. The procedure for data monitoring, recording, transfer and compilation was also verified and found in compliance with the monitoring plan as mentioned in the GS passport version 03, dated: 28/02/2018/18/ and GS Transition PDD v2.2/18/.

Evidences (Documents/Site visit interview) referred for verification of individual monitoring parameters and fixed parameter are defined in section 3.4.2.1 above. It is confirmed by the assessment team that the reported emission reductions have been conservatively calculated. A list of referred documents for verification is also included in section 4 of this report.

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 v1.2/1/ and GS4GG validation and verification standard v1.0/5/.

The verification activities were conducted in accordance with VKU Certification's Quality Manual System and SOP 4 /17/ of this report and as per the GS4GG validation and verification standard v1.0./5/ As a result, it is concluded that the emission reductions from the GS Project Activity ID 5575 **"20 MW**

Solar Project in Sanwreej, Jodhpur, Rajasthan" are correctly reported in the Monitoring Report version 06/19/ and corresponding ER sheet for the monitoring period **01/03/2020 to 31/12/2022** (including both dates) amounted as 92,384 tCO_2e.

VVB opinion on issuance as per the ISO 14064-3/9/, clause 9 which is compliance with GS4GG principles and requirement v1.2 /1/and GS4GG validation and verification standard v1.0/5/.

VVB Opinion	**Conclusion**
Positive	☒
Negative	☐
Adverse Opinion	☐
Unmodified Opinion	☒
Modified Opinion	☐

4. REFERENCE/DOCUMENTS USED IN THE VERIFICATION

S.NO	Author	Title	Reference Document	Provider
	Background Documents			
1.	Gold Standard	Principles and Requirements	Version 1.2 and Dated: 23/10/2019	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	Design change requirements	Version 1.1 and Dated: 14/04/2023	Gold Standard Website
5.	Gold Standard	Validation and verification standard	Version 1.0 and Dated: 06/03/2023	Gold Standard Website
6.	Gold Standard	Site visit and remote audit requirements and procedures	Version 2.0 and Dated: 30/05/2023	Gold Standard Website
7.	Gold Standard	Applicability of minimum site visit requirement by VVB	Version 2.0 and Dated: 16/08/2021	Gold Standard Website
8.	Gold Standard	Validation & verification body requirements	Version 2.0 and Dated: 14/01/2021	Gold Standard Website
9.	ISO	ISO- 14064-2 and ISO 14064-3 ISO 14064:2020	Version 2 Dated: 04-2019	ISO Website
10.	Gold Standard	Renewable energy activity requirements	Version 1.4 and Dated: 16/08/2021	Gold Standard Website
11.	Gold Standard	Gold standard eligible impact quantification methodologies	Version 2.4 and Dated: 22/06/2023	Gold Standard Website
12.	UNFCCC CDM	Methodology- ACM0002 "Grid-connected electricity generation from renewable sources	Version 17.0	CDM Website
13.	UNFCCC CDM	Tool for the demonstration and assessment of additionality (Tool 01)	Version 7.0	CDM Website
14.	UNFCCC CDM	Tool to calculate the emission for an electricity system (Tool 07)	Version 7.0	CDM Website
15.	UNFCCC CDM	CDM Validation and Verification standard for project activities	Version 3.0	CDM Website
16.	Gold Standard	Template Guide of Monitoring Report	Version 1.1	GS4GG Website
17.	VKU Certification	QMS Procedures and SOPs	NA	Internal Documents

	Evidences/Supporting Document			
18.	Infinite Environmental Solutions LLP	GS passport And	Version 03, dated: 28/02/2018	Gold Standard Website And submitted by Infinite Environmental Solutions LLP
		GS Transition PDD	version 2.2	
		GS PRC PDD	Version 7, dated: 13/10/2020	
19.	Infinite Environmental Solutions LLP	a. Monitoring Report	Version 01, dated 10/07/2023	Infinite Environmental Solutions LLP
		b. Monitoring Report	Version 02, dated 05/01/2024	
		c. Monitoring Report	Version 03, dated 08/02/2024	
		d. Monitoring Report	Version 04, Dated: 20/08/2024	
		e. Monitoring Report	Version 05, Dated: 18/09/2024	
		f. Final Monitoring Report	Version 06, Dated: 17/10/2024	
20.	Infinite Environmental Solutions LLP	a. ER Sheet	Version 01, dated 10/07/2023	Infinite Environmental Solutions LLP
		b. ER Sheet	Version 02, dated 05/01/2024	
		c. ER Sheet	Version 03, dated 08/02/2024	
		d. ER Sheet	Version 04, Dated: 20/08/2024	
		e. ER Sheet	Version 05, Dated: 18/09/2024	
		f. Final ER Sheet	Version 06, Dated: 17/10/2024	
21.	Rajasthan Renewable Energy Corporation Limited	Commissioning Certificate	Project – I for 10 MW capacity	Infinite Environmental Solutions LLP
			Project – II for 10 MW capacity	
22.	Tata Solar Power	Technical details	N/A	Infinite Environmental Solutions LLP
23.	Janardan Wind Energy Pvt. Ltd. (JWEPL)	Training Records	For the current monitoring period from 01/03/2020 to 31/12/2022 (Inclusive of both dates)	Infinite Environmental Solutions LLP

24.	Janardan Wind Energy Pvt. Ltd. (JWEPL)	Attendance Sheet of employees as evidence of Employment records	For the current monitoring period 01/03/2020 to 31/12/2022 (Inclusive of both dates)	Infinite Environmental Solutions LLP
25.	Janardan Wind Energy Pvt. Ltd. (JWEPL)	Grievance Register Photograph	For the current monitoring period 01/03/2020 to 31/12/2022 (Inclusive of both dates)	Infinite Environmental Solutions LLP
26.	Janardan Wind Energy Pvt. Ltd. (JWEPL)	Invoices and JMRs	For the current monitoring period 01/03/2020 to 31/12/2022 (Inclusive of both dates)	Infinite Environmental Solutions LLP
27.	Govt. Entity	O&M Agreement	Dated: 25/11/2016	Infinite Environmental Solutions LLP
28.	Govt. Entity	Power Purchase Agreement between Janardan Wind Energy Pvt. Ltd. (JWEPL) and NTPC Limited.	Dated: 16/06/2016	Infinite Environmental Solutions LLP
29.	Darsh calibration Pvt. Ltd.	Calibration Certificates of energy meters installed	N/A	Infinite Environmental Solutions LLP
30.	VKU Certification	Onsite Inspection- Site Visit Photographs	Dated: 31/07/2023	N/A
31.	N/A	GPS Map Camera app	N/A	N/A
32.	N/A	Google Earth Pro Software	N/A	N/A
33.	VKU Certification	Onsite Personnel and Stakeholders Interview	Dated: 31/07/2023	N/A
34.	VKU Certification	VKU.F62W.Field Assessment Checklist for Onsite Visit	Dated: 31/07/2023	N/A
35.	VKU Certification	VKU.F46W. Attendance Sheet of Onsite audit	Dated: 31/07/2023	N/A
36.	Central Electricity Authority	CO2 Baseline Database for Indian Power Sector	Version 11.0	Central Electricity Authority website
37.	VKU	Risk Assessment	VKU.F56W.Risk Assessment_VKU.VER.01.23_GS_5575_Pre	NA (Internal Document)
38.	VKU	Strategic Analysis Plan	VKU.F70W.Strategic Analysis Plan_VKU.VER.01.23_GS_5575	NA (Internal Document)

39.	Janardan Wind Energy Pvt. Ltd. (JWEPL)	No Double Counting Declaration for the current monitoring period No double accounting of any kind from the project activity for the current monitoring period	Date: 15/01/2024 Date: 28/06/2024	Infinite Environmental Solutions LLP
40.	Janardan Wind Energy Pvt. Ltd. (JWEPL)	Single Line Diagram	NA	Infinite Environmental Solutions LLP
41.	NA	https://unfccc.int/NDCREG https://climateactiontracker.org/countries/india/	NA	Weblink (Public)
42.	Janardan Wind Energy Pvt. Ltd. (JWEPL)	Annual Report	For current monitoring Period	Infinite Environmental Solutions LLP

5. Certification Statement

VKU Certification Private Limited (VKU Certification), contracted by Janardan Wind Energy Pvt. Ltd. (JWEPL) and Infinite Environmental Solutions LLP has performed the independent verification of the emission reductions for the GS4GG project activity **GS 5575 "20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** in India for the monitoring period **01/03/2020 to 31/12/2022 (both dates included)** as reported in final updated Monitoring Report/19/. However, due to delay in the onsite (physical audit) as per section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, the minimum, the VVB shall conduct physical site visit once every three years after the first physical site visit" but there has been a delay in the site visit which was conducted on 31/07/2023 for the current monitoring period, VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020. Therefore, ERs are calculated from 01/08/2020 to 31/12/2022 and zero (00) ERs are claimed from 01/03/2020 to 31/07/2020 but the monitoring period is same from **01/03/2020 to 31/12/2022 (both dates included).**

The Janardan Wind Energy Pvt. Ltd. (JWEPL) and Infinite Solution Limited 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 17.0/12/, the monitoring plan contained in the GS passport version 03, dated: 28/02/2018/18/ and GS transition PDD/18/, Monitoring Report /19/ 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 01/03/2020 to 31/12/2022 (both dates are included) are fairly stated in the Monitoring Report version 06 dated 17/10/2024/19/. The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodology ACM0002: Grid-connected electricity generation from

renewable sources- Version 17.0/12/ and the monitoring plan contained in the GS passport version 03, dated: 28/02/2018/18/ and GS transition PDD/18/.

VKU Certification Private Limited is able to certify that the emission reductions from the GS4GG project activity **GS 5575 "20 MW Solar Project in Sanwreej, Jodhpur, Rajasthan"** in India during the period 01/03/2020 to 31/12/2022 (including both days)/19/ amount to **92,384 tCO_2e**.

Verified and certified emission reductions as per commitment period:

Commitment period		**Amount of emission reduction**
Product Vintage 1st	01/03/2020 to 31/12/2020[23]	15,587 tCO_2e
Product Vintage 2nd	01/01/2021 to 31/12/2021	39,928 tCO_2e
Product Vintage 3rd	01/01/2022 to 31/12/2022	36,869 tCO2e
Total	**01/03/2020 to 31/12/2022**	**92,384 tCO_2e**

VIKAS KUMAR AHARWAL
Digitally signed by VIKAS KUMAR AHARWAL
Date: 2024.12.02 12:59:36 +05'30'

Dr Vikas Kumar Aharwal	**02/12/2024**
Founder and Director	Indore, India
VKU Certification Private Limited	

[23] According to section 3.1.1 of Site Visit and Remote Audit Requirements and Procedures version 1.0, At minimum, the VVB shall conduct physical site visit Once every three years after the first physical site visit" but there has been a delay in the site visit, hence VERs are only claimed before the 3 years of the physical site visit date, i.e., from 01/08/2020.

6. VERIFICATION FINDINGS (CAR/CL/FAR)

Type	Date	05-August-2023
CAR#01	Reference	Section of Ver protocol: Cover MR and Section 1

Description of the Non-Conformance

1. **Introductory Table**
   1.1 Verification Team finds that version number of PDD is not correctly represented as per the CDM registered PDD which completion date is 11/07/2017 in table of key Project Information.

2. **Table 1**
   2.1 During site visit, assessment team found that the trainings conducted are more than 10, Kindly update them as per the current site practice**.**

3. **Table 2**
   3.1 Verification Team finds that the Title for amount achieved column of Table 2 is not consistent with the GS4GG Template Guide Monitoring Report v 1.1. PP need to correct as per the GS4GG filling guidelines Version 1.1.

4. **Section A.2**
   4.1 Verification Team finds that the given geo-coordinates are as per the registered PDD but not working on google map. So, Provide the working Geo- coordinates.

5. **Section A.4**
   5.1 Verification Team finds inconsistency in the start date of crediting period between the registered PDD, GS4GG registry.

1st Response from PP	Date	05-January-2024

1. **In introductory table:**
   1.1 The version number of PDD has been revised as per the CDM registered RCPPDD version 7.0 dated on 13/10/2020.

2. **In table 1:**
   2.1 The number of trainings conducted at the site are revised for the current monitoring period.

3. **In table 2:**
   3.1 The title for the amount achieved has been revised in the MR version 2.0 and made consistent with the guidelines provided in the Template Guide for Monitoring report; version 1.1.

4. **In section A.2:**
   4.1 The geo coordinates has been revised and are in working condition and the supporting for the same has been provided.

5. **In section A.4:**
   5.1 The project has been transited from GSCER to GS4GG (GSVER) and the crediting period is from 30/03/2017 and the supporting for the same has been provided.

1st Assessment by Audit Team	Status	Closed	Date	08-January-2024

1. Introductory Table

1.1. Assessment team confirms that PP has now updated the version number in the updated MR Version 02, dated 05-January-2024 and it is found correct as per the registered PDD, hence, accepted.

2. Table 1

2.1. Assessment team confirms that PP has now made the required changes and submitted the supporting documents for the same which is found correct, hence, accepted.

3. Table 2

3.1. Assessment team confirms that PP has now revised the title for the amount achieved in the MR Version 02, dated 05-January-2024 as per the Template Guide for Monitoring report; version 1.1 and it is found correct, hence, accepted.

4. Section A.2

4.1. Assessment team confirms that PP has now updated the coordinates in the updated MR Version 02, dated 05-January-2024 which is found correct as per registered PDD, hence, accepted.

5. Section A.4

5.1. Assessment team confirms that crediting period is correct as per the transition document submitted by PP, hence, accepted.

Hence, CAR#01 is Closed

Type	Date	05-August-2023
CAR#02	Reference	Section of Ver protocol: Section 2, Section 3 and Section 4

Description of the Non-Conformance

1. Section B.1

1.1 Verification Team finds incompleteness in the section B.1**.** As per the Template Guide-MR v1.1, PP shall have to provide the information of the implementation and actual operation of the project including relevant dates (e.g., construction, commissioning, start of operation).

2. Section B.1.1

2.1 Verification Team finds that annual report for monitoring period from 01/03/2020 to 31/12/2022 is available on the GS4GG registry, PP needs to clarify which monitoring year the above annual report belongs. According to monitoring period, annual report should be two.

3. Section C

3.1 Verification Team finds that there are two main meter and two check meters for each project I and project II in calibration records which are provided by the PP, whereas verification team not able to distinguished which two (MM and CM) are for substation and other two are for project Site. So, PP need to mention it properly as per site practice.

4. Section E.1

4.1 PP needs to update the value of employees as per the employees found at the site.

5. Section E.2

5.1 PP shall have to provide the evidence for the distribution of projector in Rajkiya Uchch Prathmik Vidyalaya. Moreover, PP need to provide the reason for mentioning this in report if PP used it as any SDG impact.

6. Section E.4

6.1 As per the template guide SDG 13 shall be mentioned first in the table hence section E.4 is inconsistent with the GS4GG Template Guide of the monitoring report v1.1 SDG 13.

7. Section Appendix-1

7.1 During site visit, Verification Team finds that all four (main meters and check meter) meters entire calibration record is available at the site, kindly complete the calibration table which covers the entire current Monitoring period from 01/03/2020 to 31/12/2022.

1st Response from PP	**Date**	05-January-2024

1. **In section B.1:**
   1.1 All the information related to the implementation and actual operation of the project including relevant dates has been updated as per the guidelines of the Template Guide for Monitoring Report; version 1.1.
2. **In section B.1.1:**
   2.1 The annual report for year 2021 and 2022 a combined annual report was submitted to sustain cert for the monitoring period 01/03/2020 to 31/12/2022 and it is publicly available.
3. **In section C:**
   3.1 The main and check meters are clearly been mentioned and updated in the given section and same has been described in detail in appendix 1 of the MR version 02.
4. **In section E.1:**
   4.1 The value of employees has been revised as per the actual practice followed at site.
5. **In section E.2:**
   5.1 It has been revised as was not relevant to the monitoring period.
6. **In section E.4:**
   6.1 As per the template guide SDG 13 is mentioned first in the table and made consistent with the GS4GG Template Guide of the monitoring report v1.1
7. **In appendix 1:**
   7.1 The calibration details have been revised and now it is covering the entire current Monitoring period from 01/03/2020 to 31/12/2022 and the calibration certificate has been provided as supporting.

1st Assessment by Audit Team	**Status**	Closed	**Date**	08-January-2024

1. **Section B.1**
   1.1. Assessment team confirms that PP has now updated the required information and they are found correct as per the supporting documents submitted by PP, hence, accepted.
2. **Section B.1.1**
   2.1. Assessment team confirms that PP has submitted the annual reports and the information mentioned in the updated MR; Version 02, dated 05-January-2024 is correct, hence, accepted.

3. **Section C**
   3.1. Assessment team confirms that PP has mentioned the meter details in the updated MR; Version 02, dated 05-January-2024 and it is found correct as per the supporting documents submitted by the PP, hence, accepted.
4. **Section E.1**
   4.1. Assessment team confirms that PP has now mentioned the employment details in the updated MR; Version 02, dated 05-January-2024 and it is found correct as per the supporting documents submitted by the PP is correct, hence, accepted.
5. **Section E.2**
   5.1. Assessment team confirms that PP has now removed that statement from the updated MR; Version 02, dated 05-January-2024, hence, accepted.
6. **Section E.4**
   6.1. Assessment team confirms that PP has now updated the table in the updated MR; Version 02, dated 05-January-2024 and it is found correct, hence, accepted.
7. **Appendix-1**
   7.1. Assessment team confirms that PP has now updated the meter details in the updated MR; Version 02, dated 05-January-2024 and it is found correct, hence, accepted.

Hence, CAR#02 is Closed

Type	**Date**	05-August-2023
CL#01	**Reference**	Section of Ver protocol: Section 1 and Section 4

Description of the Non-Conformance

1. **PP is requested to provide the following documents:**
   - Generation Record (JMR)/Invoices.
   - Training Records/Employment Record/Salary slips to verify the values of SDGs claimed for current monitoring period
   - O&M Agreement and PPA

2. **Section D.2**

   2.1 PP need to clarify why Air Quality and Health Camp is not taken as data to be monitored for this current monitoring period. Also need to clarify why PP took parameters 1. Quality of employment and 2. Quantitative employment and income generation in a single section.

   2.2 PP shall have to submit the employee records with detail which cover number of male/female employees, their types of job (temporary or permanent), their ages and how many among them have disabilities and types of disabilities/Employment Record.

   2.3 PP to clarify that O&M value spent 30,000,000 is annually or during overall expenditure during current monitoring period.

   2.4 PP need to clarify why PP did not include Emission Reduction as parameter of Air Quality.

3. **Section D.3**
   3.1 PP need to clarify that why D.3 is not applicable for current monitoring period.

4. **Section E.6**

4.1 Verification Team finds that there is 15.10% higher emission reduction than the estimated. PP need to clarify that is this 15.10% high variation in ER impacts on the additionality of the project?

5. **Section F**
5.1 PP shall have to provide evidence for the same "Safeguarding Report".

1st Response from PP	**Date**	05-January-2024

1. **PP has provided the following documents:**
   - Generation Record (JMR)/Invoices.
   - Training Records/ Salary slips to verify the values of SDGs claimed for current monitoring period. Employment record will be submitted later.
   - O&M Agreement and PPA

2. **In section D.2:**
   2.1 The data parameter air quality and health camps has been taken in the given section for the current monitoring period and also the quality of employment and quantitative employment and income generation has been revised under two different sections as per the registered transition document and the supporting for the same has been provided.
   2.2 The employee records with detail which cover number of male/female employees, their types of job (temporary or permanent), their ages and how many among them have disabilities and types of disabilities/Employment Record will be submitted later.

   2.3 It is the actual income generation for the current monitoring period and the value has been revised as per the O&M declaration and the supporting for the same has been submitted.
   2.4 Emission Reduction parameter has been revised as Air Quality as per registered transition document.

3. **In section D.3:**
   3.1 As per monitoring template guidelines, this section is not applicable for non-Community Service Activities, hence not applicable and the same is mentioned.

4. **In section E.6:**
   4.1 There is 11.68% higher emission reduction as compared to the estimated. By PLF analysis it is seen that there is no impact on the additionality of the project and the same has been demonstrated in the ER sheet and the same submitted.
   4.2 The supporting for safeguarding report has been submitted.

1st Assessment by Audit Team	**Status**	Open	**Date**	08-January-2024

1. Assessment team confirms that PP has submitted:
   - JMR and Invoices
   - Training Records/Salary slips to verify the values of SDGs claimed for current monitoring period. However, Employment record is not submitted yet.
   - O&M Agreement and PPA
2. **Section D.2**
   2.1. Assessment team confirms that the clarification provided by PP is correct and PP has now updated the table in the updated MR; Version 02, dated 05-January-2024 and it is found correct, hence, accepted.

2.2. Employment record is not submitted yet.
2.3. Assessment team confirms that the clarification provided by PP is correct and PP has now updated the values in the updated MR; Version 02, dated 05-January-2024 and it is found correct, hence, accepted.
2.4. Assessment team confirms that PP has now updated the table in the updated MR; Version 02, dated 05-January-2024 and it is found correct, hence, accepted.

3. Section D.3

3.1. Assessment team confirms that the clarification provided by PP is correct, hence, accepted.

4. Section E.6

4.1. Assessment team confirms that the clarification provided by PP is correct and the same has been mentioned in the updated ER sheet which is found correct, hence, accepted.
4.2. Assessment team confirms that PP has submitted the ER Sheet for the data mentioned in the safeguarding requirements, hence, accepted.

Hence CL#01 is Open

2nd Response from PP	**Date**	08- February-2024

1. The employment records have been submitted.
2. In section D.2:
- The employment records have been submitted.

2nd Assessment by Audit Team	**Status**	Closed	**Date**	20-February-2024

1. It is confirmed that PP has submitted Attendance sheet as employment record, hence accepted.

2. Section D.2

2.1. It is confirmed that PP has submitted Attendance sheet as employment record, hence accepted.

Hence CL#01 is Closed

Type	**Date**	07-February-2024
CL#02	**Reference**	Section of Ver protocol: Section 1 and Section 4

Description of the Non-Conformance

1. Section B.1 PP is requested to provide the following documents:

1.1 What is the output voltage in DC from the panels.
1.2 Please state the type of transformer whether IDT or power transformer.
1.3 How many are monitoring meters.

2. Section C

2.1 In case dates of monitoring period and invoice billing dates do not match how is the energy measured for truncated dates in monitoring period.

3. Section D.3

3.1 The classification of the employment is not presented based on the skill level.
3.2 How is the dust generation reduction monitored and measured.

4. Section E.1

4.1 Please clarify the wage disbursal against skill levels and how it is in compliance with local or national govt policies on minimum wages based on skill level

5. **Section E.6**
   5.1 PD has not stated the effect of this increase in the additionality of the project activity.

1st Response from PP	Date	08- February-2024

1. **In Section B.1 The following documents has been provided:**
   1.1 The output voltage in DC from the panels is revised and mentioned in the given table.
   1.2 It is step up type of transformer and the same has been mentioned in the given table.
   1.3 In actual practice there are 2 energy meters (billing meter) that are located at GSS end for both the site (Project – I and II) and the details for the same are mentioned in section C and appendix 1 of the monitoring report.

2. **In Section C:**
   2.1 In case the dates of monitoring period and invoice billing dates do not match than the formula for the same has been mentioned.

3. **In Section D.3:**
   3.1 The number of employments on the basis of skilled and unskilled is mentioned.
   3.2 There are two things one is CO_2 emission reduction and the other is reduction in dust generation. So tCO_2 emission reduction happens just because of net electricity generation and it is cross checked with records for sold electricity whereas reduction in dust generation parameter is only applicable only during construction phase.

4. **In Section E.1:**
   4.1 It is the total income generated in the current monitoring period for all the employees and the income generated is more than the minimum wage criteria and also more than the per day wage mentioned in the transition document. Therefore, it is in compliance with the with local or national govt policies on minimum wages based on skill levels.

5. **In Section E.6:**
   5.1 It has been stated in the revised monitoring report and the same has been demonstrated in the ER sheet.

1st Assessment by Audit Team	Status	Closed	Date	29-February-2024

1. **Section B.1**
   1.1. Assessment team confirms that PD has revised the statement about the output voltage in updated MR and it is correct, hence, accepted.
   1.2. Assessment team confirms that PD has revised the statement about type of transformer in updated MR and it is found correct, hence, accepted.
   1.3. Assessment team confirms that the clarification provided by PD about energy meters is correct, hence, accepted.
2. **Section C**
   2.1. Assessment team confirms that PD has revised the statement and included the calculation in the updated MR which is found correct, hence, accepted.
3. **Section D**
   3.1. Assessment team confirms that PD has revised the statement in the updated MR about the employment details and it is found correct, hence, accepted.
   3.2. Assessment team confirms that the clarification provided by the PD is correct, hence, accepted.
4. **Section E.1**
   4.1. Assessment team confirms that the clarification provided by the PD is correct, hence, accepted.

5. Section E.6

5.1. Assessment team confirms that PD has revised the statement in updated MR about the effect of increased ERs and it is also mentioned in the ER Sheet which is found correct, hence, accepted.

Hence, CL#02 is Closed

Declaration

All CARs, CLs, and FARs from the Verification is successfully closed.

Total Number of CAR s	02	**Total Number of CLs s**	02	**Total Number of FAR s**	00
Status of CARs	☐ Open ☒Closed ☐ Turned to a FAR	**Status of CLs**	☐Open ☒ Closed ☐ Turned to a FAR	**Status of FARs**	☐ Open ☐Closed ☐Turned to a FAR

7. COMPETENCE OF VERIFICATION TEAM AND TECHNICAL REVIEWERS

Team Leader and Technical 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
Education Qualification	B.Sc. (Environmental Science and Water Management) M.Sc. (Ecology & Environmental Sciences)
Year of Experience	12 Years +
Area of Expertise	Climate Change & Environment
Eligible Sectoral Scope	TA 1.2 - Renewables TA 3.1 – Energy Demand TA 6.1 – Construction TA 7.1 – Transport TA 13.1 – Solid waste and wastewater TA 14.1 – Forestry

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	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	08/10/2023
Approved by	Dr. Vikas Kumar Aharwal (Founder & Director)	Date	08/10/2023

Technical Reviewer and Technical Expert (T.A.1.2)

COMPETENCE STATEMENT

Name	Sanjay Kumar K
Nationality	Indian
Countries of Experience	Vietnam, Thailand, India
Education Qualification	BE (Civil Engineering) ME (Environmental Engineering)
Year of Experience	12+ Years
Area of Expertise	Climate Change &Environment / Industry
Eligible Sectoral Scope	TA 1.2 - Energy generation from renewable energy sources TA 3.1. Energy demand TA 6.1. Construction TA 13.1. Solid waste and wastewater

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (1.2, 3.1, 6.1 & 13.1)	YES
Financial Expert	NO

Reviewed by	Apoorva Gupta (Quality Manager)	Date	16/10/2023
Approved by	Barun Kumar (Technical Manager)	Date	16/10/2023

Validator/Verifier

COMPETENCE STATEMENT

Name	Shivani Chauhan
Nationality	Indian
Countries of Experience	India
Education Qualification	B.Sc. (Environmental Science) M.Sc. (Environmental Science)
Year of Experience	2 years as Intern 9 months as Employee
Area of Expertise	Climate Change & Environment
Eligible Sectoral Scope	NA

Roles

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

Reviewed by	Vandana Gupta (Quality Manager)	Date	03.04.2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	03.04.2023

Validator/Verifier-Trainee

COMPETENCE STATEMENT

Name	Aastha Verma
Nationality	Indian
Countries of Experience	India
Education Qualification	B.Sc. (Zoology Hons.) M.Sc. (Environmental Science)
Year of Experience	1 year
Area of Expertise	Climate Change & Environment
Eligible Sectoral Scope	NA

Roles

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	Vandana Gupta (Quality Manager)	Date	19/05/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	19/05/2023

Project Trainee

COMPETENCE STATEMENT

Name	Anand Kumar
Nationality	Indian
Countries of Experience	India
Education Qualification	M.Sc. (Environmental Science) B.Sc. (Chemistry Hons.)
Year of Experience	Fresher (Done 3 months Internship in VKU)
Area of Expertise	NA
Eligible Sectoral Scope	NA

Roles

Project Trainee	YES
Validator/Verifier Trainee	NO
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	Vandana Gupta (Quality Manager)	Date	31/03/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	31/03/2023

History of the Document

Version	Date	Amendment Summary*	Prepared By	Approved By
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