

GS4GG Verification (Performance Certification) Report



Certification Pvt. Ltd.

VKU Certification Pvt. Ltd.

Regd. Off: Prakoshth Number No. 1-S, Leaf Tower, Second Floor, Plot No. 01, IRIS LEAF Gram Talawali Chanda, Indore 453771 (M.P.)
India.

URL: <http://vkucertification.com> e-mail: info@vkucertification.com

Project Title
120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat
Registry Project ID: GS7572
Monitoring Period: 01-July-2023 to 31-December-2023 (both dates included)
Project Representative
Infinite Environmental Solutions Limited
VKU Project Reference No.
VKU.VER.22.23_GS_7572

Executive Summary:

A) Basic information		
Project Title	120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat	
GS4GG Project ID:	7572	
Date of Project Design Certification	09/11/2020	
Last Date of Annual Report	06/12/2023	
VKU Project Reference No.	VKU.VER.22.23 GS 7572	
Sectoral scope	Scope: 01 Energy Industries (renewable- and non-renewable sources)	
Methodology/ies applied	ACM0002: Version 20.0	
Technical Area (TA)	T.A 1.2	
Project Representative	Infinite Environmental Solutions limited	
Project Developer/Investor	Juniper Green Sigma Private Limited	
GS4GG Activity Requirements	Renewable Energy Activity	
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 7 – 130,539.05 MWh of renewable energy generated/ per monitoring period SDG 8 – Training – 15/ per monitoring period Employment- 22/ per monitoring period Income (INR) –5,548,601/ cumulative of the current monitoring period SDG 13 –122,205 tCO2e (GS VERs)	
Scale of Project Activity	Large Scale	
B) Verification		
Start date of crediting period	09/11/2020	
End date of crediting period	08/11/2025	
Monitoring Period	01/07/2023 – 31/12/2023 (both dates included)	
C) Monitoring report	Version	Date
Initial	1.0	04/01/2024
Final	4.0	10/06/2024
D) Performance Certification report	Version	Date
Initial	1.0	20/03/2024

Final	2.0	21/06/2024
E) Verification Team		
Team Leader ¹	Barun Kumar	
Technical Expert (TA 1.2)	Barun Kumar	
Validator/Verifier	N/A	
Validator/Verifier- Trainee	Monika Jha	
Project Trainee	Priyanshee Modi	
Local Expert (India)	Barun Kumar	
F) Approvals		
Technical Reviewer ²	Sanjay Kumar	
Technical Expert (TA 1.2)	Sanjay Kumar	
G) Final opinion		
VKU Certification performed the sixth verification under the first crediting period (09/11/2020 to 08/11/2025) of the GS4GG project “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” with GS4GG 7572 as Reference Number. As described in this report from sections 1 to 3, VKU has performed the entire verification according to the verification criteria and their GHG emission reductions or removals set out in GS4GG Validation and Verification Standard Version 1.0 /5/. The project developer of the “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” are responsible for: • The preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions for the project on the basis set out in the monitoring plan contained in the registered GS4GG PDD version 6 of 11/01/2021/13/. • The development and maintenance of records and reporting procedures are following that plan, including the calculation and determination of greenhouse gas emission reductions of the project. The verification includes confirmation regarding the project implementing the PDD’s /13/ monitoring plan and the monitoring methodology as per ACM0002 “Grid-connected electricity generation from renewable sources – Version 20.0”/12/. According to the Project Design Document (PDD), this project aims to generate 298,072 MWh of clean energy annually (SDG: 7). Additionally, it requires at least one training session to be conducted every year, and is expected to employ approximately 15 individuals (SDG: 8). Furthermore, the project is anticipated to mitigate the emission of 275,350 tCO₂e annually. The emission reductions from the GS4GG project activity ID 7572 “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” in India during the period 01/07/2023 – 31/12/2023 i.e. 184 days (both dates included) amount to 122,205 tCO₂e. The equivalent energy generated amounts to 130,539.05 MWh (SDG 7) and 22 people were employed, 15 trainings were provided with a salary of INR 5,548,601 to all the employees employed in the current monitoring period (SDG 8) throughout the project activity.		

¹ Team Leader is an approved GS Auditor for VKU.

² Technical Reviewer is an approved GS Auditor for VKU.

VKU Certification which is an approved ISO 14064-3:2019/9/ accredited Validation/Verification Body confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The verification includes confirmation about the implementation of the monitoring plan mentioned in the PDD/13/ and the application of the monitoring methodology. VKU Certification which is an approved ISO 14064-3:2019/9/ accredited Validation/Verification Body affirms that the monitoring system is in place along with the emission reductions are calculated without material misstatements and all the supporting documents including but not limited to ER Sheet /15/, PPA /27/, commissioning certificates /16/, calibration certificates /28/, JMRs /24/, invoices /25/, training records /21/, etc. were checked. VKU's verification approach is based on understanding the risks associated with reporting, analysing the data associated with GHG emission calculations to mitigate any sort of material misstatements. VKU planned and performed the verification by adopting an evidence-based approach to rely on different sorts of data, other information to verify the data related to this project activity and explanations. VKU assures to provide a **Reasonable level of assurance** that reported GHG emission reductions are fairly stated and correctly calculated. It is VKU's opinion that the GHG emission reduction stated in the monitoring report version 04 dated 10/06/2024/14/ for the "120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat" for the current monitoring period is fairly stated.

The assessment team meticulously followed several steps prescribed in the ISO standard 14064-3 /9/ to conclude, starting with Strategic Analysis, followed by Risk Assessment, and the development of an Evidence Gathering plan. Subsequently, the team diligently executed the planned activities to collect the necessary evidence. To ensure a comprehensive planned evaluation, an Audit plan was prepared before the remote site visit, and a remote visit was conducted accordingly. Remote site activities were carried out following the pre-established Evidence Gathering plan. Following the remote site inspection /29/, post-site evaluation was conducted adhering to verification values which involved scrutinizing supporting documents, and verifying the claims of Monitoring Reports (MR) /14/, along with calculations of Emission Reports (ER) /15/.

The final report prepared after following the previously mentioned procedure follows an Independent Technical review by an experienced Technical Reviewer. Adhering to the mandatory requirements of the standard, the assessment team established a positive opinion based on the findings raised and addressed them respectively.

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

Therefore, VKU certification recommends a request of Issuance to GS4GG.



H) Authorization	
Director	Vikas Kumar Aharwal
Date	21/06/2024
I) Distribution	
No public distribution without written confirmation from the client.	
J) Verification Status	
Findings closed	Yes
Draft report	No
Final report	Yes

Abbreviations

BM	Build Margin
CAR	Corrective Action Request
CERs	Certified Emission Reductions
CL	Clarification Request
CM	Combined Margin
EB	Executive Board
ERs	Emission Reductions
FAR	Forward Action Request
FVR	Final Verification Report
GHG	Greenhouse Gas(es)
GHG	Green House Gas
GS4GG VVS	Gold Standard Validation and Verification Standard
GSS	Grid Sub Station
	Gujarat Urja Vikas Nigam Limited
IPCC	Intergovernmental Panel on Climate Change
JGSPL	Juniper Green Sigma Private Limited
MR	Monitoring Report
O&M	Operation and Maintenance
OM	Operating Margin
PDD	Project Design Document
PE	Project Emissions
PPA	Power Purchase Agreement
PSA	Power Sale Agreement
PV	Photovoltaic
RCP	Renewable of Crediting Period
Ref.	Document Reference
RMP	Revised Monitoring Plan
SCADA	Supervisory Control and Data Acquisition
SECI	Solar Energy Corporation of India
TA	Technical Area
TR	Technical Reviewer
VERs	Verified Emission Reductions
VKU	VKU Certification Ltd.



VT	Verification Team
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

Table of Contents

Executive Summary:	2
Abbreviations	5
1. introduction	9
1.1 Executive Summary	9
1.2 Objective	10
1.3 Scope and Criteria	11
1.4 Level of Assurance and Application of Materiality	13
1.5 Basic information of project activity	14
2. Methodology	15
2.1 Desk Review or Document Review	16
2.2 Site Visits (Remotely conducted)	17
2.3 Reporting of Findings	19
2.4 Technical Review	20
3. Verification Findings	21
3.1 Description of project	22
3.1.1 General description of project	22
3.1.2 Location of Project	23
3.1.3 Reference of applied methodology	23
3.1.4 Crediting period of Project	23
3.2 Remaining Issues (FAR(s) from validation or previous verification)	24
3.3 Post registration changes	24
3.4 Description of monitoring system applied by the project	26
3.4.1 Compliance of monitoring activities with the registered Monitoring plan	26
3.4.2 Compliance with the calibration frequency requirements for measuring instruments	29
3.5 Assessment of data and calculation of emission reductions or net removals	31
3.5.1 Calculation of baseline values or estimation of baseline situation of each SDG Impact	31
3.5.2 Calculation of project value or estimation of project situation of each SDG Impact	31
3.5.3 Calculation of Leakage	32
3.5.4 Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks	32
3.5.5 Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD	33
3.5.6 Remarks on difference from estimated value in registered PDD	33
3.6 Safeguards Reporting	34
3.7 Stakeholder inputs and legal disputes	34
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.	34
3.7.2 Report on any stakeholder mitigations that were agreed to be monitored.	34
3.7.3 Details of legal contest that has arisen with the project during the monitoring period	35



3.8	Quality of evidence to determine emission reductions.....	35
3.9	Management system and quality assurance	36
3.10	Verification Assessment.....	36
3.11	Verification Opinion	37
4.	<i>Reference/Documents used in the verification.....</i>	38
5.	<i>Certification Statement.....</i>	41
6.	<i>VERIFICATION findings (CAR/CL/FAR).....</i>	42
7	<i>competence of verification team and technical reviewer</i>	50
	<i>History of the document.....</i>	58

1. INTRODUCTION

1.1 Executive Summary

The main purpose of the project activity “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” is to generate electrical energy through sustainable means by utilizing solar power resources, the generated green electricity is contributing to climate change mitigation efforts. This project activity is a large-scale grid-connected Solar PV power project. Juniper Green Sigma Private Limited is the project investor for this project activity. The project entails the installation of 431,284 photovoltaic modules with rated capacity of **405 Wp (Number of modules- 322,028 & 410 Wp Number of modules- 109,256)** respectively.

The project activity is located at Babsar Village of Sabarkantha District, Bhordu Village of Banaskantha District, Bilvaniya and Vantda Suka village of Aravalli District in the Gujarat state of India. The project activity is connected to Unified Indian Grid. Under this project activity, **120 MW_{AC}** of Solar PV technology is being implemented at the above-mentioned project locations.

For this monitoring period 01/07/2023 – 31/12/2023 (both dates included) project activity is reducing anthropogenic emissions of greenhouse gases (GHG's) **122,205 tCO₂e**, thereon displacing **130,539.05 MWh** 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. The project activity has also employed **22** peoples, provided **15** trainings and contributed to Salary INR **5,548,601** (SDG 8) in the current monitoring period. The given SDGs were verified via supporting documents and found in compliance as per the GS4GG requirements.

Below table mentions the Latitude and Longitude of the project location:

S.No.	Village	District	From		To	
			Latitude	Longitude	Latitude	Longitude
1	Babsar	Sabarkantha, Gujarat	23°58'32.67"N	72°54'26.79"E	23°58'35.60"N	72°54'41.21"E
2	Bhordu	Banaskantha Gujarat	24°25'33.88"N	71°44'21.61"E	24°25'36.10"N	71°44'07.59"E
3	Bilvaniya, Vantdu Suka	Aravalli Gujarat	23°19'36.21"N	73°17'00.03"E	23°19'27.63"N	73°16'52.46"E

PPA has been signed between Gujarat Urja Vikas Nigam Limited (GUVNL) and Juniper Green Sigma Private Ltd. (JGSPL) dated 21/05/2019 /27/ has been found correct during the desk review and remote inspection as well. The electricity generated from the project activity is evacuated through GUVNL (220kV) Substation which is a part of Indian Grid.

The project developer has undertaken this project under GS4GG solely. The project activity involves installation of 120 MW_{AC} grid connected solar photovoltaic power plant as crosschecked from the PPA. The start date of the project activity is 04/03/2020, i.e., the date of the earliest Purchase Order and 25 MW,

Bilvaniya, Vantda Suka, Tehsil- Dhansura, District- Aravalli site Commissioned earlier on 17/10/2020, therefore 17/10/2020 is commercial operation date. The PV system mainly consists of PV modules, module mounting structures, inverters, regulators, monitoring devices etc. Technical Specifications of the SPVs include- 3-phase alternating current, Nominal frequency is 50 Hz, Final Voltage at Delivery Point is 66kV.

The details of the project are mentioned in the table:

Project Name	investor's	Capacity in MW	District	State
Juniper Green Sigma Private Limited		120 MW	Sabarkantha, Banaskantha, Aravalli	Gujarat, India

The verification team has reviewed the commissioning certificates /16/ & PPA /27/ to conclude that the capacity of the project is same as mentioned in the registered GS4GG PDD and same is explained by PD during remote site interviews. The capacity of the project activity does not change after the registration of the project activity and same has been confirmed from the commission certificate, PPA and credit notes issued by State Utility and Invoices raised by the PD towards state utility. Also, from review of other documents such as Commissioning certificate, PPA & credit note, it was observed that the rated capacity of the project is 120 MW.

As per CDM project standard for project activities, the capacity of the project is more than 15 MW and thus it qualifies as large-scale project activity. Plant is located in Gujarat state of India. Assessment team also checked the locations of the project activity as mentioned in the registered PDD and the validation report. Thus, location provided in MR are found in line with registered documents of the project activity and are as stated in table above. The project is connected to Indian grid (as per the grid structure of India) and the same is found correct by the assessment team during the review of commissioning certificate, PPA and remote site interviews with PD.

The grid structure as mentioned in the PDD is still applicable for the project and ex-ante emission factor as in the PDD is used for emission reduction calculation. The assessment team noted that the project activity has entered a power purchase agreement with the state entity.

Thus, assessment team confirms that the project is implemented as per the registered PDD and there is correction in the Solar PV module details in the current monitoring report as compared to the registered PDD.

1.2 Objective

Infinite Environmental Solutions Limited (Project Representative) has contracted with VKU Certification Private Limited (VKU Certification) to conduct the verification and certification of emission reductions reported for the GS4GG project activity 7572 “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd.

in Gujarat” in India for the period 01/07/2023 – 31/12/2023 (both dates included). This report contains the findings of the verification process and a certification statement for the verified emission reductions.

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

The objective of this verification is to verify and certify emission reductions reported for the “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” for the period 01/07/2023 – 31/12/2023 under the first crediting period (09/11/2020-08/11/2025 both dates included). The project activity follows a renewable crediting period of 5 years, which can be extended a maximum of two times, as outlined in section A.3 of GS4GG PDD Version 6.0 dated 11/01/2021/13/.

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

- The project activity has been implemented and operating as per the registered GS4GG PDD/13/ and all physical features (technology, project equipment, and monitoring) of the project are in place;
- VKU assessed both quantitative and qualitative information on emission reductions/GHG Removals and SDG Impacts provided in the project documentation.
- VKU assessed and determined whether the implementation and operation of the design-certified project and the steps taken to report emission reductions/removals and other SDG Impacts comply with the applicable regulatory documents. This assessment involved a review of relevant documentation as well as remote-site inspection.
- VKU assessed whether the data collection system meets the requirements of the design-certified monitoring plan as per the applied methodology and related documents.
- Monitoring report and monitoring plan is verified and other than that Validation report, verification report, applied methodology and supporting documents are also reviewed;
- VKU determined whether the Project Developer has addressed the FARs identified during validation, design change, deviation requests, renewal of crediting period or previous verification /20/.

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 this project. The verification of this project was based on the validated & registered GS4GG PDD version 06., dated: 11/01/2021/13/, monitoring report version 04 dated 10/06/2024 /14/ and ER sheet version 2.1 dated 10/06/2024/15/ along with supporting documents /16/ /17/ /18/ /21/ /22/ /23/ /24/ /25/ /26/ /27/ /28/ submitted by the project developer to the VKU verification team.

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

1. GS4GG validation and verification standard v1.0 para 1.2 /5/
2. GS4GG validation and verification standard v1.0 para 9.7.2 and 17.2.8 for POA and VPA(S) /5/
3. GS4GG principles rules and requirements v1.2 /1/
4. CDM validation and verification standard for project activities v 3.0 para 2 /37/
5. VKU Quality Manual and Processes
6. Methodology applied by project- ACM0002- Grid-connected electricity generation from renewable sources V-20.0 /12/
7. Tools utilized by the project-
 - Tool to calculate the emission factor for an electricity system- V 07 /38/
 - Tool for the demonstration and assessment of additionality V 07 /39/

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 carbon units (GS-VERs) without any double counting.
- To verify that actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan.
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement & is sufficiently supported by evidence.
- The verification process ensures that the reported emission reductions are comprehensive and accurate in order to obtain certification.

The verification method and criteria encompassed several phases, including various audit techniques as listed below: -

- **Desk Review** of GS4GG project design document PDD, and supporting documents listed in section 04 of this report, which is provided by the Project developer to assessment team.
- **Remote-site Interviews** with site personnel and Stakeholders
- **Reporting**, calculation checks, QA/QC and resolution of findings

- Drafting of **verification report**
- VKU's **technical review** of project
- Completeness/ Quality Check, and
- The final issuance of the verification report

Outstanding issues were resolved, and during the process of resolving issues 02 CARs and 02 CLs were raised and were closed successfully, leading to the issuance of the final verification report. It is to be noted that there was no FAR (Forward Action Request) raised / unaddressed in the current monitoring period. However, there is one correction in previous monitoring period. The correction is the estimated value of Parameter EGfacility, y i.e. Quantity of net electricity supplied to the grid reported under SDG 7 in section B.7.1 of the registered GS PDD version 6.0 dated 11/01/2021 was mistakenly considered without using the degradation factor (0.70%) and it was corrected and approved in the previous monitoring period. It is important to note that the verification process does not involve providing consultancy to the project developer. 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 PD were subjected to an independent technical review to confirm that all verification activities had been completed according to the pertinent VKU's procedure, 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 is as per the GS4GG validation and verification standard v1.0, para 9.6. For the identification of the materiality threshold VVB referred to para 9.6.3 of validation verification standard v1.0 /5/ and applied to the total emission reduction achieved by the "120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat". As per the GS4GG validation verification standard /5/ section 9.6, the level of assurance of the verification report falls under reasonable assurance engagements concerning material errors, omissions, and misrepresentations.

Table 01: Description of materiality threshold of project:

Application of Materiality Threshold as per the GS4GG VVS v1.0 para 9.6.3	Materiality threshold value (tCO ₂ e)	Reported ERs (tCO ₂ e)		Justification (If any deviation)
		In Initial MR	In Final MR	
1.0%	1,222.05 tCO ₂ e	122,954 tCO ₂ e	122,205 tCO ₂ e	There is negligible deviation in ERs in the initial and final MR so there is no change in

				materiality threshold. There is only 749 tCO₂e increase in (0.61%) reported ERs between initial and final MR and it is still falling under the same materiality threshold i.e.- 3,00,000-5,00,000. Hence this section is not applicable.
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1.5 Basic information of project activity

Title of project activity	120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat
GS4GG Reg. No.	7572
Scale of project activity	Large Scale
Applied Methodology/ies	ACM0002 “Grid-connected electricity generation from renewable sources – Version 20.0”
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 Limited
Host Country	India
Location of project activity	The project activity is located at Babsar Village of Sabarkantha District, Bhordu Village of Banaskantha District, Bilvaniya and Vantda Suka village of Aravalli District in the Gujarat state of India.
Start date of crediting period (with reference to this monitoring period)	First Crediting Period - 09/11/2020 to 08/11/2025 (both dates included)
Type and length of crediting period	Type - Renewable Length - 5 years
Monitoring period	01/07/2023 – 31/12/2023 (both dates included)

Table 02. VVB Information

Name of the VVB	VKU Certification Private Limited
GS accreditation expiry date	20-June-2026
Is the VVB accredited for the applicable sectoral scope?	Yes
Name, position of the approver of the verification report <i>(Insert name of the technical reviewer)</i>	Sanjay Kumar K

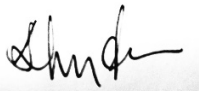
Signature <i>(Insert signature of technical reviewer)</i>	
Name, position of the authorized signatory for issuance of the verification report <i>(Insert name of the Director)</i>	Dr. Vikas Kumar Aharwal
Signature (Final version only) <i>(Insert signature of Director)</i>	

Table 03: Sustainable Development Contributions for verification

Sustainable Development Goals Targeted	SDG Impacts	Estimated Annual Average as per registered PDD	Units
7 Affordable and Clean Energy	MWh of renewable energy generated	292,072	MWh
8 Decent Work and Economic Growth	Training Employment	Training- 01 Employees- 15	No of Training/ monitoring period No. of Employee Income Generation
13 Climate Action (Mandatory)	Emission Reduction	275,350	tCO ₂ e (GS-VERs)

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 process involved a desk review of relevant documentation as well as a remote site visit /29/.

The personnel employed and their roles in this project's assessment are mentioned below;

Verification Team member(s)

S.No.	Full Name	Role(s)	Type of Resource	Type of Activity(ies) carried out
1.	Barun Kumar	Team Leader cum Technical Expert (TA 1.2)	Internal Resource	DR/RV/I/VF/FVR ³

³ DR- Desk Review
RV-Remote Visit
I-Interview
VF- Verification Findings
DVR- Draft Verification Report



	(Male)			
2.	Monika Jha (Female)	Validator/Verifier -Trainee	Internal Resource	DR/RV/I/VF
3.	Priyanshee Modi (Female)	Project Trainee	Internal Resource	DR/RV

Technical Reviewer 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 K (Male)	Technical Reviewer cum Technical Expert (TA 1.2)	External Resource	Technical Review

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

Verification milestones:

Monitoring report submission:	08/03/2024
Remote site assessment and Interview:	16/01/2024
Draft Verification Report	13/03/2024
Final Verification Report	21/06/2024

VKU Certification followed a rule-based verification approach, wherein, the contract review is undertaken as per valid/effective version of GS4GG validation/ verification Standard 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 described in Section 2.1 to 2.4 of this report.

2.1 Desk Review or Document Review

VKU Certification conducted a desk review of document as under;

During the document review, VKU has applied standard auditing techniques to assess the quality of information provided. The verification was performed primarily based on the review of monitoring report (MR) /14/ and emission reduction (ER) /15/ calculations spreadsheet were received from PD and assessed along with the monitoring reports as part of the verification. In addition, the registered GS4GG PDD version 6 of 11/01/2021 /13/ was also reviewed, for the baseline estimations and applicability of the monitoring plan.

As per section 9.3 and clause 9.3.2 of the GS4GG Validation and Verification standard version 1.0 /5/ the VVB shall assess the information provided by the Project Developer(s).

Document review involves:

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

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

- The GS4GG PDD version 6 of 11/01/2021 /13/and the monitoring plan, including any approved revised monitoring plan and/or changes from the registered PDD, and the corresponding validation opinion;
- The Validation Report Version 02 dated 11/09/2020 /19/;
- Previous verification reports/20/;
- The applied monitoring methodology (ACM0002 V.20) /12/ and, where applicable, the applied standardized baseline;
- The monitoring report (all versions, if available) 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).

The complete list of documents reviewed is included under Section 4.

2.2 Site Visits (Remotely conducted)

The project activity is located at Babsar Village of Sabarkantha District, Bhordu Village of Banaskantha District, Bilvaniya and Vantda Suka village of Aravalli District in the Gujarat state of India.

Company Name	Capacity	Site- Visit Dates	Project activity site	Project activity Name
Juniper Green Sigma Private Ltd	120 MW _{AC}	16/01/2024 (remotely conducted)	Village - Babsar, Tal - Vadali, Dist. - Sabarkantha	120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat.
			Village -Bhordu, Tal - Tharad, Dist.- Banas kantha	
			Village - Bilvaniya, Vantda Suka, Tal– Dhansura, Dist. -Aravalli	

Further the location along with longitude and latitude is mentioned in section 3.1.2. of this report. A remote site visit /29/ was undertaken by VKU Certification on 16/01/2024 as per the “GS4GG site visit and remote audit requirements and procedures” v 2.0 dated 30/05/2023 /6/ and “GS4GG applicability of minimum site visit requirement by VVB” dated 16/08/2021 v 2.0 /7/ and mentioned to carry out following;

- An assessment of the implementation and operation of the registered project activity as per the registered PDD /13/;
- A review of information flows for generating, aggregating, and reporting the monitoring parameters;
- Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PDD /13/;
- A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, JMRs /24/, Invoices 25/, PPA /27/ or other similar data sources listed in section 4;
- A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters as per the VVS v1.0 clause 9.3.2.

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

Interview: Inspection done remotely: 16/01/2024

A remote site inspection /29/was performed by the assessment team. Representatives of the PD were interviewed /32/ personally by the assessment team remotely on 16/01/2024. Personnel responsible for monitoring of project activity, data collection, management, and QA/QC were also interviewed remotely. 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.

The topics covered during remote interview covered- 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 remote interviews.

Interview: Technical Personnels

Name	Role	Location of Site
Milap Patel (Male)	Engineer	Babsar
Momin Abbasali (Male)	Engineer	Babsar
Sandeep Gohil (Male)	Assistant Manager	Khadol
Aditya Patel (Male)	Engineer	Khadol
Ashish Patel (Male)	Senior Engineer	Bhordu
Rajeev Gupta (Male)	Senior Analyst	Indore

Interview: Local Stakeholders / Non -Technical Personnels

Name	Role	Location of Site
Yogesh Chauhan (Male)	Labour	Babsar
Mahendra Chauhan (Male)	Farmer	Babsar
Pagi Naresh (Male)	Office boy	Khadol
Parmar Vijay (Male)	Security supervisor	Khadol
Narshi Makavana (Male)	Labour	Bhordu
Shanti Bhai Rathore (Male)	Security supervisor	Bhordu

VKU's Assessment Team included form VKU.F46W. Attendance Sheet of Remote audit /34/ with the names of personnel present during opening and closing meeting which is kept as evidence of the remote audit. Stakeholder consultation interview was also conducted by asking the site engineer to arrange some local stakeholders for maintaining the impartiality, Assessment team interviewed some people living nearby the site like farmer, labour, etc. and VKU confirms that there were no negative comments received during the current monitoring period as found during the site audit conducted remotely.

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.

Verification Team confirms that prior approval was taken from each individual interviewed as per the GS4GG requirements regarding recording and using their names and interviews for the reporting purposes.

2.3 Reporting of Findings

The objective of this step is to identify, discuss and conclude the issues related to the monitoring, implementation and operations of registered project activity that can influence the monitoring and reporting

of emission reductions. This is done based on the desk review and remote site assessment. The verification team prepares a verification protocol (internal document) that records the conformities and non-conformities, which may be of following types;

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

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

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

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

In summary, **02 CLs**, **02 CARs** and **00 FAR** were raised during this verification which were closed successfully, and details are provided under **section 06** of this report.

All the findings that are raised and communicated to project developer during the verification as part of process and are included under Section 06. The section also includes the response/changes/justifications if provided, by the project developer and an assessment of the response/changes/justifications provided by the PD conducted by the verification team if 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 (one or more members) to confirm if the internal procedures established and implemented by VKU Certification were duly complied with and such opinion/conclusion is reached in an objective manner that complies with the GS4GG rules and requirements. The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the 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 “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” for the current monitoring period 01/07/2023 - 31/12/2023 (both dates included).

The project has applied for registration under the Gold Standard (GS) exclusively with ID: 7572. This sole 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 like CDM (Clean Development Mechanism), 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 developer. 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 Verification through Declaration:

The Project Developer (PD) has also confirmed this claim of single-registration through a declaration document submitted to the assessment team, affirming that the GHG emission reductions achieved by the project during the current monitoring period are not be sought or claimed under any other registries apart from GS. Assessment team checked the Self- declaration for no double counting /36/ provided by PD. The project activity is an independent project developed by the PD and does not fall under any national climate change policies and also the claimed VERs that are included within are not regulated under any climate mitigation target or NDCs. Assessment team has verified the same via self-declaration/36/ provided by the PD and national polities were also verified which states that the project activity does not fall under any such targets.

Also confirmed that claimed VERs are not included within and counted under regulated domestic mitigation target or NDCs. Assessment team has cross verified the same through the website <https://climateactiontracker.org/countries/india/> and found that solar power projects ie., renewable energy sector itself are not part of the NDC of the Govt of India. The PD provided self-declaration/36/ to the effect that the present project is not part of NDC whose authenticity was checked by the AT and found to be appropriate. VVB also confirmed that claimed VERs are not included within and counted under regulated domestic mitigation target or NDC

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, 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. A declaration /36/ submitted by the PD claiming the same was duly verified and found to be accurate by the verification team. Additionally, an independent verification process was initiated with other relevant registries, which substantiated that there were no instances of project rejection by these entities.

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 \(irecstandard.org\)](http://irecstandard.org)
- 4) <https://cri.nccf.in/>
- 5) [International Carbon Registry - International Carbon Registry](#)
- 6) [GCC PROJECTS PORTAL \(globalcarboncouncil.com\)](http://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/>

This section summarises the findings from the verification of the emission reductions reported for this project activity for the current monitoring period i.e. 01/07/2023 – 31/12/2023 (both dates included).

3.1 Description of project

3.1.1 General description of project

Verification Means	During desk review and Remote site inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 03 dated 04/04/2024/14/ and MR version 04 dated 10/06/2024, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents /16/ /27/ /29/
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Findings	No findings raised in this parameter
Conclusions	Verification is done following the registered PDD and previous verification report. The general description of the project was verified via Commissioning certificates and PPA. The commissioning details of project activity is mentioned in appendix Since, all data was verified thoroughly, the Assessment Team can ascertain that the description of the project mentioned is in line with GS4GG standards Version 1.0. and Principle and Requirements v1.2.

3.1.2 Location of Project

Verification Means	During desk review and Remote site inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 03 dated 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents /30/ /31/& further with supporting documents submitted by the PD i.e., Last Verification Report /20/, Validation Report /19/, O & M Agreement /26/, Power Purchase Agreement /27/ etc.
Findings	CAR 01- was raised and further closed successfully. The details for the same are mentioned in section 6 of this report.
Conclusions	Verification is done following the registered monitoring plan mentioned in the PDD and MR and location was verified using Google earth /31/ during desk review and was cross verified during remote site visit by asking for site photographs from the PD along with the mentioned geocoordinates. Since, 100% data was verified, the assessment team can ascertain that the location of mentioned project is correct and found in compliance.

3.1.3 Reference of applied methodology

Verification Means	During desk review and Remote site inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 03 dated 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and applied methodology ACM0002 Version 20.0 as this a large-scale solar project. /12/
Findings	No findings raised
Conclusions	Verification is done in accordance with the registered PDD and applied methodology ACM0002 Version 20.0 as this a large-scale solar project. Since data mentioned in MR was verified thoroughly via registered PDD, the assessment team can ascertain that the description of the methodology used in the project mentioned is in line with GS4GG standards.

3.1.4 Crediting period of Project

Verification Means	During desk review and Remote Inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 03 dated 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and further with supporting documents submitted by the PD i.e., Last Verification Report /20/, Validation Report /19/
Findings	No findings raised in this parameter.
Conclusions	Verification Team assessed that this monitoring period falls under the 1st crediting period of the given project activity i.e., from 09/11/2020 to 08/11/2025 (Length of 5 years and renewable). This was verified via registered PDD and GS impact registry. Based on this, it can be concluded

	that crediting period start date and its duration is correct and is in line with GS4GG VVS/5/, GS4GG principles and requirements /1/.
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3.2 Remaining Issues (FAR(s) from validation or previous verification)

This is the sixth verification of the project activity. There is No FAR(s) from previous verification as per the last verification report version 1.2 dated: 05/02/2024 that need to be closed during this verification.

3.3 Post registration changes

Type of change(s)	Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline.
Description of change(s)	N/A
Assessment of change(s)	N/A
Opinion on change(s)	N/A

Type of change(s)	Corrections: There are no changes in the current monitoring period. However, there was correction required in estimated annual emission reductions as the degradation factor was neglected earlier. PD has already made changes and corrections in the previous monitoring period regarding the same.																																								
Description of change(s)	The estimated value of Parameter $EG_{\text{facility}, y}$ i.e. Quantity of net electricity supplied to the grid reported under SDG 7 in section B.7.1 of the registered GS PDD version 6.0 dated 11/01/2021 was mistakenly considered without using the degradation factor (0.70%). However, the baseline emission (BE_y) was calculated using the degradation factor, but the same has been reported erroneously (typographical error). The correct value of ER estimation can be referred from the ER sheet approved at the time of design certification. PP requested corrections during the previous MP to revise the estimated value Parameter $EG_{\text{facility}, y}$ and parameter BE_y. The calculation table for the same has also been updated in line with the last verification report. Please note that the correction is only related to reporting the parameters in the PDD and it does not affect the additionality, applicability of methodology and registered monitoring plan of the project as the correct values were reported in the IRR and ER sheet at the time of Design Certification. SDG 7: Affordable and Clean Energy <table><tr><th>Year</th><th>Baseline Estimate (MWh)</th><th>Project Estimate (MWh)</th><th>Net Benefit (MWh)</th></tr><tr><td>Year 1</td><td>0</td><td>2,98,120</td><td>2,98,120</td></tr><tr><td>Year 2</td><td>0</td><td>2,93,961</td><td>2,93,961</td></tr><tr><td>Year 3</td><td>0</td><td>2,91,903</td><td>2,91,903</td></tr><tr><td>Year 4</td><td>0</td><td>2,89,860</td><td>2,89,860</td></tr><tr><td>Year 5</td><td>0</td><td>2,87,831</td><td>2,87,831</td></tr><tr><td>Total</td><td>0</td><td>1,461,675</td><td>1,461,675</td></tr><tr><td>Total number of crediting years</td><td colspan="3">5 Years</td></tr><tr><td>Annual average over the crediting period</td><td>0</td><td>292,335 MWh</td><td>292,335 MWh</td></tr></table> SDG 13: Climate Action <table><tr><th>Year</th><th>Baseline Estimate (tCO₂e)</th><th>Project Estimate (tCO₂e)</th><th>Net Benefit (tCO₂e)</th></tr></table>	Year	Baseline Estimate (MWh)	Project Estimate (MWh)	Net Benefit (MWh)	Year 1	0	2,98,120	2,98,120	Year 2	0	2,93,961	2,93,961	Year 3	0	2,91,903	2,91,903	Year 4	0	2,89,860	2,89,860	Year 5	0	2,87,831	2,87,831	Total	0	1,461,675	1,461,675	Total number of crediting years	5 Years			Annual average over the crediting period	0	292,335 MWh	292,335 MWh	Year	Baseline Estimate (tCO ₂ e)	Project Estimate (tCO ₂ e)	Net Benefit (tCO ₂ e)
	Year	Baseline Estimate (MWh)	Project Estimate (MWh)	Net Benefit (MWh)																																					
	Year 1	0	2,98,120	2,98,120																																					
	Year 2	0	2,93,961	2,93,961																																					
	Year 3	0	2,91,903	2,91,903																																					
	Year 4	0	2,89,860	2,89,860																																					
	Year 5	0	2,87,831	2,87,831																																					
	Total	0	1,461,675	1,461,675																																					
	Total number of crediting years	5 Years																																							
	Annual average over the crediting period	0	292,335 MWh	292,335 MWh																																					
Year	Baseline Estimate (tCO ₂ e)	Project Estimate (tCO ₂ e)	Net Benefit (tCO ₂ e)																																						

	Year 1	2,80,799	0	2,80,799
	Year 2	2,76,881	0	2,76,881
	Year 3	2,74,943	0	2,74,943
	Year 4	2,73,019	0	2,73,019
	Year 5	2,71,108	0	2,71,108
	Total	1,376,750	0	1,376,750
	Total number of crediting years	5 Years		
	Annual average over the crediting period	275,350 (tCO ₂ e)	0	275,350 (tCO ₂ e)
Assessment of change(s)	The above stated corrections are assessed by VVB during the assessment stage and thus, it is to confirm that annual average values for estimation for both net electricity generation & emission reductions are now correctly used while calculating the emission reductions for the current monitoring.			
Opinion on change(s)	VVB's opinion is positive on the above correction by the PD and it is to confirm that above stated correction will only result in the accurate estimation of emission reductions for a given time frame/current monitoring period and it doesn't affect the additionality and baseline scenario of the implemented project activity.			

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

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

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

Type of change(s)	Corrections
Description of change(s)	N/A
Assessment of change(s)	N/A
Opinion on change(s)	N/A

3.4 Description of monitoring system applied by the project

The monitoring plan is developed following the modalities and procedures for GS4GG project activity and is proposed for grid-connected solar power projects being implemented in Gujarat, India. The monitoring plan, describes the monitoring organization, parameters to be monitored, monitoring practices, quality assurance, quality control procedures, data storage and archiving. The authority and responsibility for registration, monitoring, measurement, reporting and reviewing of the data rests with the PD. The estimated emission reduction during the current monitoring period is 138,806 tCO₂e displacing 147,368.88 MWh, and the actual emissions reductions are achieved as 122,205 tCO₂e thereon displacing 130,539.05 MWh amount electricity. The export and import energy are measured continuously using above mentioned Main & Check meters installed at GETCO (Gujarat Energy transmission Corporation Ltd.) Sub-station located at following locations: -

Site	Final Delivery Points	Final Voltage
Babsar	66 kV Babsar S/s	66 kV
Bhordu	66 kV Bhordu S/s	66 kV
Khadol	66 kV Khadol S/s	66 kV

During the verification process, all relevant monitoring parameters listed in the GS4GG PDD /13/ have been checked for appropriateness of the applied measurement/determination method, correctness of the values used for ER calculation, accuracy, and applied QA/QC measures.

Based on our assessment, we believe that the monitoring mechanism is in line with the methodology and is effective and reliable. The monitoring plan mentioned in the GS4GG PDD is in accordance with the applied methodology, i.e. ACM0002, version 20.0 and the approved standardized baseline applied by the registered GS4GG project.

3.4.1 Compliance of monitoring activities with the registered Monitoring plan

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

Verification Means	During desk review and Remote site inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 03 dated 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents /5/		
Findings	No findings raised in this parameter.		
Conclusions	Details of ex-ante parameters		
	Parameter	Unit	Description
	EF _{OM, y}	tCO ₂ e/ MWh	Operating Margin CO ₂ emission factor in year y
	EF _{BM, y}	tCO ₂ e/ MWh	Build Margin CO ₂ emission factor in year y
	EF _{CM, y}	tCO ₂ e/ MWh	Combined Margin CO ₂ emission factor in year y
			Value
			0.9622
			0.8811
			0.9419

	Verification is done following the registered PDD and applied methodology ACM0002 Version 20.0 /12/. The values are obtained from the CO ₂ Baseline Database for Indian Power Sector” version 15.0, published by the Central Electricity Authority /35/, Ministry of Power, Government of India as mentioned in MR /14/ and verified as per registered PDD /13/.
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3.4.1.2 Data and Parameters monitored

Verification Means	During desk review and Remote Inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 03 dated 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents /24/ /25/			
Findings	CL 01- was raised and was further closed successfully.			
Conclusions	Details of the monitored parameter			
	Parameters	Source	Value Applied	Purpose of Data
	EG _{facility,y}	Monthly JMR, cross-verification with invoices raised.	130,539.05 MWh	Monitoring and data verification regarding implication of SDG 7.
	ER _y	The baseline emissions are the product of electrical energy baseline EG _{PJ,y} , expressed in MWh of electricity produced by the renewable generating unit multiplied by an emission factor.	122,205 tCO ₂ e	Monitoring and data verification regarding implication of SDG 13.
	Quantitative employment, Quality of Employment, Income generation.	Training Records (HSE & HR) Salary Slip of the project employees.	22 people Employed 15 trainings provided Salary 5,548,601 INR Total income generated during the current monitoring period.	Monitoring and data verification regarding the implication of SDG 8.
	SDG Indicator 7.2: Affordable and Clean Energy EG_{facility,y}: Quantity of net electricity supplied by the project plant/unit to the grid in year y (MWh)			

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:

$$EG_{\text{facility}, y} = EG_{\text{Export}} - EG_{\text{Import}}$$

The net energy exported to the grid is measured every month using a calibrated energy meter by the State Electricity Board authorities in the presence of the project implementer. The meter/s are jointly inspected and sealed by authorized representatives of the company and the state utility.

The Energy meters of accuracy class 0.2s are used to measure the net electricity generated. The electricity generated was verified via JMRs /24/ and crosschecked with the invoices /25/ provided by the PD. The meters are calibrated once in a year and the calibration of the meters are verified from calibration certificates provided /28/.

Hence, the value of 130,539.05 MWh, as specified in MR version 4 and the emission sheet, is validated as accurate and complies with the stipulations outlined in Para 364 and 395 (e) of the "CDM validation and verification standard for project activities, Version 03.0." /37/.

Additionally, the assessment team scrutinized the Joint Monitoring Reports (JMRs) issued /24/. They also cross-checked the power exported values with the invoices submitted by the (PD) /25/ and found them to be consistent with the JMRs issued.

The meters are calibrated once in every three years and the calibration of the meters (calibration details added in appendix 3) are verified from calibration certificates provided and is still applicable for current monitoring period /28/. The calibration is done by State electricity boards of the respective states for all the 3 sites.

During remote inspection of the site, the assessment team also interviewed the site in-charge, O&M representative /26/, plant manager along with other technical and non-technical staff, and confirmed the calibration details, technical specifications (added in appendix 2) /17/, O&M details, etc. It is to note that arrangement of meters, accuracy class of meters and calibration frequency is under the purview of state electricity boards in all the three project implemented states and PD has no control over meter calibration.

The total maintenance and downtime for the current MP is 34:12:00 hours and this was verified by AT via breakdown details provided by PD. Also, for the calendar year 2023, the actual PLF is 27.63% which is 2.66% lesser compared with registered PLF. Breakdown time and lower PLF resulted in lower generation by 0.38% as compared to the estimated generation annually.

SDG Indicator SDG 8.5.1: Decent Work and Economic Growth

- Regarding quantitative employment and income generation, this involves tracking the number of project employees, their gender, employment type (permanent/temporary), age, disability status, and the salaries paid to them.
- The parameter is determined by the total number of individuals employed directly as a result of the project's activities, and it takes into account the improved salary provided to these

	employees, as well as the income from the O&M contract during the current monitoring period. - In this specific case, the data reveals that there was a total of 22 employees during this monitoring period. This workforce consisted of 22 skilled employees in permanent positions and 00 unskilled employees in temporary roles. PD has provided salary slips and employment agreement of persons directly getting employment opportunity from the project activity. - Further VVB has crosschecked the number of persons employed during the remote site visit by means of attendance register, remote interviews /32/ and Salary Slips /22/. The Project thus provides employment opportunities and pays salaries and welfares and also helps to increase the income and living standards of the employees. SDG indicator 8.6.1: Quality of employment A total of 15 total trainings were provided during the current monitoring period and Total income generated for the employees is INR 5,548,601. The assessment team found this information acceptable and verified it using the salary slips, Training Attendance sheets & Employee Records submitted. Details of training topics are mentioned in the table below: SDG Indicator 13.2.1: Climate Action ER_y: Emission reductions achieved The baseline emissions are the product of electrical energy baseline $EG_{\text{facility},y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the emission factor. The calculation is clearly presented in the Emission Reduction Sheet, and it indicates that the emission reduction achieved during the current monitoring period is 122,205 tCO₂e. 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. Additionally, employee interviews /32/ were conducted during remote audit as part of the verification procedure. Verification is done in accordance with the registered monitoring plan and monitoring frequency mentioned is as per MR /14/ and registered PDD /13/ i.e. Since 100% data was verified, the assessment team can ascertain that the values for the SDG7, SDG 8 and SDG 13 are accurate.
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3.4.1.2 Implementation of Sampling Plan

Verification Means	N/A
Findings	N/A
Conclusions	N/A

3.4.2 Compliance with the calibration frequency requirements for measuring instruments

Verification Means	During desk review and Remote Inspection, the Assessment Team verified MR version1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 3 dated: 04/04/2024 and MR version 04 dated
--------------------	---

	10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents /28/																								
Findings	CAR 01- was raised and was further closed successfully.																								
Conclusions	Verification is done in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.																								
	Calibration is done once in every three year as per registered PDD /13/ and PPA /27/. Calibration frequency was cross verified via calibration certificates and was found to be in line with the registered PDD /13/ and PPA /27/. Calibration is conducted by State Electricity Board and Calibration records are maintained at the plant site as was confirmed during the remote site visit. The data is cross-verified against values of sold electricity in the joint meter reading statement issued by the Gujarat Urja Vikas Nigam Limited (GUVNL). The meter is in control and supervision of GUVNL and are calibrated only as and when GUVNL so desires.																								
	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. A standby meter is also present at sites to compensate any calculation loss due to any mishap with both the main and check meter.																								
	Calibration Details of meters:																								
	1. For 35 MW solar plant connected to Babsar Substation:																								
	<table><tr><th>S.No.</th><th>Meter Number</th><th>Type</th><th>Accuracy class</th><th>Date of calibration</th><th>Due date</th></tr><tr><td>1</td><td>GJ4583A</td><td>Main meter</td><td>0.2s</td><td>20/06/2023</td><td>19/06/2026</td></tr><tr><td>2</td><td>GJ4584A</td><td>Check meter</td><td>0.2s</td><td>20/06/2023</td><td>19/06/2026</td></tr><tr><td>2</td><td>GJ4585A</td><td>Standby meter</td><td>0.2s</td><td>20/06/2023</td><td>19/06/2026</td></tr></table>	S.No.	Meter Number	Type	Accuracy class	Date of calibration	Due date	1	GJ4583A	Main meter	0.2s	20/06/2023	19/06/2026	2	GJ4584A	Check meter	0.2s	20/06/2023	19/06/2026	2	GJ4585A	Standby meter	0.2s	20/06/2023	19/06/2026
	S.No.	Meter Number	Type	Accuracy class	Date of calibration	Due date																			
	1	GJ4583A	Main meter	0.2s	20/06/2023	19/06/2026																			
	2	GJ4584A	Check meter	0.2s	20/06/2023	19/06/2026																			
	2	GJ4585A	Standby meter	0.2s	20/06/2023	19/06/2026																			
2. For 40 MW solar plant connected to Bhordu Substation:																									
<table><tr><th>S.No.</th><th>Meter Number</th><th>Type</th><th>Accuracy class</th><th>Date of calibration</th><th>Due date</th></tr><tr><td>1</td><td>GJ4603A</td><td>Main meter</td><td>0.2s</td><td>21/07/2020 08/07/2023</td><td>20/07/2023 07/07/2026</td></tr><tr><td>2</td><td>GJ4604A</td><td>Check meter</td><td>0.2s</td><td>21/07/2020 08/07/2023</td><td>20/07/2023 07/07/2026</td></tr><tr><td>2</td><td>GJ4605A</td><td>Standby meter</td><td>0.2s</td><td>21/07/2020 08/07/2023</td><td>20/07/2023 07/07/2026</td></tr></table>	S.No.	Meter Number	Type	Accuracy class	Date of calibration	Due date	1	GJ4603A	Main meter	0.2s	21/07/2020 08/07/2023	20/07/2023 07/07/2026	2	GJ4604A	Check meter	0.2s	21/07/2020 08/07/2023	20/07/2023 07/07/2026	2	GJ4605A	Standby meter	0.2s	21/07/2020 08/07/2023	20/07/2023 07/07/2026	
S.No.	Meter Number	Type	Accuracy class	Date of calibration	Due date																				
1	GJ4603A	Main meter	0.2s	21/07/2020 08/07/2023	20/07/2023 07/07/2026																				
2	GJ4604A	Check meter	0.2s	21/07/2020 08/07/2023	20/07/2023 07/07/2026																				
2	GJ4605A	Standby meter	0.2s	21/07/2020 08/07/2023	20/07/2023 07/07/2026																				
3. For 45 MW solar plant connected to Khadol Substation:																									
<table><tr><th>S.No.</th><th>Meter Number</th><th>Type</th><th>Accuracy class</th><th>Date of calibration</th><th>Due date</th></tr><tr><td>1</td><td>GJ4606A</td><td>Main meter</td><td>0.2s</td><td>18/08/2020 08/08/2023</td><td>17/08/2023 07/08/2026</td></tr><tr><td>2</td><td>GJ4607A</td><td></td><td>0.2s</td><td>18/08/2020</td><td>17/08/2023</td></tr></table>	S.No.	Meter Number	Type	Accuracy class	Date of calibration	Due date	1	GJ4606A	Main meter	0.2s	18/08/2020 08/08/2023	17/08/2023 07/08/2026	2	GJ4607A		0.2s	18/08/2020	17/08/2023							
S.No.	Meter Number	Type	Accuracy class	Date of calibration	Due date																				
1	GJ4606A	Main meter	0.2s	18/08/2020 08/08/2023	17/08/2023 07/08/2026																				
2	GJ4607A		0.2s	18/08/2020	17/08/2023																				



			Check meter		08/08/2023	07/08/2026
	2	GJ4608A	Standby meter	0.2s	18/08/2020	17/08/2023
					08/08/2023	07/08/2026

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	During desk review and Remote Inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 3 dated: 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents.
Findings	No findings raised
Conclusions	Verification is done in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. SDG 13- The baseline emissions are the product of electrical energy baseline $EG_{PJ,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by an emission factor. $BE_y = EG_{facility,y} * EF_{grid,CM,y}$ $= 130,539.05 * 0.9419$ $= 122,205 \text{ tCO}_2\text{e}$ SDG 7- The Values estimated in ex ante calculation of approved PDD for this monitoring period is 0 MWh as per the baseline estimates. SDG 8- Total 0 training was to be conducted and 0 employees were to be hired as per ex-ante values estimated in ex ante calculation of approved PDD for this monitoring period as per the baseline estimates. The Data given in the MR /14/ section E.1 and ER sheet was verified via Registered PDD /13/ during desk review stage and was found to be correct and in compliance with ISO 14064-2 clause 6.4 and 6.5 /9/.

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

Verification Means	During desk review and Remote Inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 3 dated: 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents /24/ /25/
Findings	No findings raised
Conclusions	As per the PDD the project estimated 5 training and 15 jobs as annual average over the crediting period. Verification is done in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. Monitored parameters for the project is- ER_y: As per the ACM0002 V-20.0 /12/, Project Emission for most renewable energy power generation project activities, PE_y = 0.

	Hence, $ER_y = BE_y$ Therefore, $ER_y = 122,205 \text{ tCO}_2\text{e}$ EG_{facility, y}: During current monitoring period, the project has generated 129,743.08 MWh affordable and clean energy. Number of employment generation: Number of people employed- 22, Trainings provided- 15, Total income generated for the employees INR 5,548,601. The electricity generated was verified via JMRs /24/ and crosschecked with the invoices /25/ provided by the PD and the employment generated was checked via the employment records /22/, training records /21/ and salary slips /22/ of employees. Since 100% data was verified, the assessment team can ascertain that the values for the emission reductions calculated are accurate and in line with ISO 14064- 2 clause 6.7 /9/.
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3.5.3 Calculation of Leakage

Verification Means	During desk review and Remote Inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 3 dated: 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents
Findings	No findings raised
Conclusions	Verification is done in accordance with the registered PDD /13/ and applied methodology ACM0002 Version 20.0 /12/. Leakage (LE_y) = 0 As per Paragraph 53 of the consolidated methodology ACM0002 V 20 /12/, there is no leakage emission through the renewable project electricity generation.

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 Benefit	Conclusion
13- Climate Action	122,205 tCO ₂ e	0	122,205 tCO ₂ e	Assessment team conducted desk review and a remote site inspection and verified the data reported in the ER sheet /15/ and MR /14/ for current monitoring period via JMRs /24/ and invoices /25/ raised monthly and found it to be correct.
7- Affordable and Clean	0	130,539.05 MWh	130,539.05 MWh	Assessment team verified Net Electricity generated in the current monitoring period via JMRs /24/ that were further crosschecked via invoices /25/ and DGRs present remotely and found it to be correct.

8- Decent Work and Economic Growth	0	15 Trainings 22 employees INR 5,548,601	15 Trainings 22 employees INR 5,548,601	Assessment team verified total employment generated and trainings conducted in the current monitoring period via employment records, salary slips /22/ of employees and training records /21/ and were found to be correct.
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3.5.5 Comparison of actual emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

SDG and SDG Impact	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period	Conclusion
13- Climate Action	138,806 tCO ₂ e	122,205 tCO ₂ e	Assessment team conducted desk review and a remote site inspection and verified the Net Electricity generation reported in the ER sheet /15/ and MR /14/ for current monitoring period via JMRs /24/ and invoices /25/ raised monthly. Total employment generated and trainings conducted in the current monitoring period were verified via employment records, salary slips /22/ of employees and training records /21/ and were found to be correct.
7- Affordable and Clean	150,260.95 MWh	130,539.05 MWh	
8- Decent Work and Economic Growth	1 training and employment to 15 persons	Total 22 skilled people employed, 15 trainings conducted, and total income generated INR 5,548,601 for this monitoring period.	

3.5.6 Remarks on difference from estimated value in registered PDD

Verification Means	During desk review and Remote Inspection, the Assessment Team verified MR version 1.0 dated: 04/01/2024, MR version 2.0 dated 09/02/2024, MR version 3 dated: 04/04/2024 and MR version 04 dated 10/06/2024/14/, PDD version 6.0 dated: 11/01/2021/13/, and other supporting documents
Findings	No findings raised
Conclusions	The ex-ante estimates value of the emission reductions for the monitoring period as per the registered PDD /13/, is 130,539.05 tCO₂e and the actual emission reductions achieved for the monitoring period is 122,205 tCO₂e. For SDG 13, since actual emission reduction is lower than the estimated value by 12.87% This is because of lower yield months and other climatic factors observed which was beyond the control of PD and hence it is acceptable to the verification team. The monitoring report provides reason for decrease in the actual emission reduction and the same was confirmed by the verification team by interviewing the representatives of PD and by reviewing the actual implementation status of the project. For other SDG parameters, PD has provided justification in the Monitoring report and assessment of the same is provided below:

	• SDG 13: Actual emission reductions are significantly lower than the estimated ones. The reason for this decrease has been provided in the MR; checked and found justified. • SDG 7: The actual value is slightly lower than the estimated value. The reason for such decrease has been provided in the MR; checked and found justified. • SDG 8: Verification team based on review of documents and interview with PD confirms that the actual value of this SDG exceeds the estimated value. This is subjective to needs of the plant and it can vary accordingly. Hence found to be justified.
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3.6 Safeguards Reporting

The verification Team confirmed that the project developer provides a report on the safeguarding principles that are added to the monitoring plan. There is one safeguarding principle (4.3.5: Hazardous and Non-hazardous Waste) which is included in the monitoring plan. The Verification Team concluded that the project developer provided all the required information as per the Template Guide- MR v1.1 and that is correct and in compliance with GS4GG Safeguarding Principles Requirement v 2.1 dated: 29/06/2023/3/.

3.7 Stakeholder inputs and legal disputes

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

During desk review, the Assessment team checked the procedures mentioned in MR and during remote site inspection cross verified the same via interviews of site personnel and stakeholders /32/ that-

As a part of the continual improvement process- PD has kept the grievance register /23/ at the project site which is accessible to stakeholders to provide their feedback on the project and this is confirmed during the remote site audit by actual verification of the grievance register and also by the confirming about the same with the project developer. It is placed appropriately at a publicly accessible location (at the security gates) where local stakeholders can provide their feedback. 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 a regular basis.

In the current monitoring period, no grievances have been received and this was verified during remote site inspection /29/ via the grievance register copy submitted with the supporting documents /23/.

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

During remote site inspection Assessment Team verified the grievance register /23/ placed and conducted personnel interviews remotely /32/ 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

The Assessment Team confirms that the given GS4GG project “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” 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 the certification process. Assessment team visited the website “Indiankanoon” and “livelaw” searching for any legal dispute regarding this project activity and found no such case against them.

3.8 Quality of evidence to determine emission reductions

As per the verification of ER calculation process, assessment team confirmed that all the parameters required for determination of emission reductions has been included in the Monitoring report version 04 dated 10/06/2024/14/ and corresponding ER calculation spread-sheets Version 2.1 dated 10/06/2024/15/ and are consistent with the applied methodology ACM0002 Version 20.0 /12/ and the monitoring plan contained in the registered PDD /13/. The parameters used are completely monitored as per the registered PDD /13/ in this monitoring period.

During desk review and remote inspection, the assessment team verified the reported ERs with the help of supporting documents e.g., JMRs, Invoices, and DGR and conducted personnel interviews remotely to check the sufficiency of data and its aggregation.

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

Emission reductions is calculated by the “Quantity of net electricity supplied from the project (solar) plant/unit to the grid in year y”, $EG_{\text{facility},y}$ (MWh) (SDG Indicator 7). This parameter is monitored through the reading of Energy meters installed. The meters have an accuracy of class 0.2s.

The electricity generated was checked via JMRs /24/ and was crosschecked with records of electricity sale (e.g., sales receipt/Invoices) /25/. Calibration of all the meters is undertaken once in every three years as per PPA /27/. Remote-site personnel interview /32/ with the site personnel of the project activity confirms that the necessary QA/QC procedures are in place. Data management system is effective and reliable for the net electricity supplied by the project plant/unit to the grid in year y. Hence, assessment can conclude that the data and its management is in compliance with GS4GG validation/ verification standard /5/.

3.9 Management system and quality assurance

The final verification report passed a technical review and completeness check/ Quality check before being submitted to the client for forward submission to GS. A technical reviewer qualified in accordance with VKU certification competency form which VKU.F8A. Competency Evaluation of Personnel (Internal Document) for validation and verification of GHG projects performed the technical review.

The comments raised during the technical review stage is thoroughly addressed by the assessment team.

After the comments raised during this stage is successfully addressed, the Final verification report undergo VKU's Completeness/Quality Check before issuance.

3.10 Verification Assessment

All the data have been made available to the assessment team by PD during remote site visit /29/ and as supporting evidences during verification assessment which have been monitored as per required monitoring frequency. The means of verification for the values of parameters, used for baseline emission calculation, is described above in the report.

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 01/07/2023 – 31/12/2023 is:

SDG 13- Actual emission reduction achieved is 122,205 tCO₂e calculated by multiplying the unit of MWh produced by an emission factor. The value of emission factor is verified from the PDD /13/ and is calculated as per “Tool to calculate the emission factor for an electricity system version 7.0,”. The data is obtained from “CO₂ Baseline Database for Indian Power Sector” version 15.0, /35/ published by the Central Electricity Authority, Ministry of Power, Government of India.

SDG 7- Amount of net electricity generated is 130,539.05 MWh. Value calculated was verified via JMRs /24/ and was further cross verified by Invoices /25/.

SDG 8- Employment generated- 22 verified via employment records and total income generated INR 5,548,601 verified via salary slips and 15 trainings conducted were verified via training records provided by PDD /13/.

The verification consisted of the following phases:

- **Document Review:** Relevant documents, such as the verification report, monitoring plan, methodology, GS PDD, QA/QC procedures and supporting documents were thoroughly reviewed.
- **Remote 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 Request :02, CL: Clarification Request :02** were raised and resolved. No FAR was raised.

Description of the findings raised is provided in Section 6 of this verification report.

3.11 Verification Opinion

VKU Certification, contracted by Infinite Environmental Solutions Limited., has performed the independent verification of the emission reductions for the GS Project ID 7572 “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” for the monitoring period 01/07/2023 – 31/12/2023 as reported in the Monitoring Report, version 04 dated 10/06/2024 /14/. VKU commenced the verification against the baseline and monitoring methodology ACM0002, version 20.0 /12/ the monitoring plan contained in the PDD Version 06 dated 11/01/2021/13/ and Monitoring Report version 04 dated 10/06/2024/14/.

During remote site audit site in charge is found responsible for the collection of data following the monitoring plan and the reporting of GHG emissions reductions from the project activity.

VKU Certification confirms that the monitoring system is in place and the emission reductions are calculated without any 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 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 7572 “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” are correctly reported in the Monitoring Report version 04 dated 10/06/2024/14/ and corresponding ER sheet /15/ for the monitoring period 01/07/2023 – 31/12/2023 (both dates included) amounted to 122,205 tCO₂e.

VVB opinion on issuance as per the ISO 14064-3 /9/, clause 9 which is in compliance with GS4GG principles and requirement v1.2 /1/ and GS4GG validation and verification standard v1.0 /5/. The VVB hereby issues a resolutely positive opinion meticulously drafted in strict accordance with ISO 14064-3:2019, /9/ Section



09, and the precise provisions of Clause 9.7.1.6 & 9.7.2 of ISO 14065:2020. This opinion stands in full alignment with the exacting requirements delineated in ISO/IEC 17029:2019, Section 9.7./9.4

Our verification process provides a robust and reasonable level of assurance regarding the truthfulness of the reported GHG emission reduction data. This data is devoid of any material misstatements and is steadfastly supported by the evidence furnished by the Project Developer (PD), comprehensively presented in this report.

VVB opinion on issuance as per the ISO 14064-3, 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	☐

4. REFERENCE/DOCUMENTS USED IN THE VERIFICATION

S.No	AUTHOR	TITLE	REFERENCE TO THE DOCUMENT	PROVIDER
/1/	Gold Standard	<u>Principles and Requirements</u>	Version 1.2 and Dated: 23/10/2019	Gold Standard Website
/2/	Gold Standard	<u>Stakeholder consultation and engagement requirements</u>	Version 2.1 and Dated: 14/06/2022	Gold Standard Website
/3/	Gold Standard	<u>Safeguarding principles & requirements</u>	Version 2.1 and Dated: 29/06/2023	Gold Standard Website



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VKU.F27W. Verification Report

/4/	Gold Standard	<u>Design change requirements</u>	Version 1.1 and Dated: 14/04/2023	Gold Standard Website
/5/	Gold Standard	<u>Validation and verification standard</u>	Version 1.0 and Dated: 06/03/2023	Gold Standard Website
/6/	Gold Standard	<u>Site visit and remote audit requirements and procedures</u>	Version 2.0 and Dated: 30/05/2023	Gold Standard Website
/7/	Gold Standard	<u>Applicability of minimum site visit requirement by VVB</u>	Version 2.0 and Dated: 16/08/2021	Gold Standard Website
/8/	Gold Standard	<u>Validation & verification body requirements</u>	Version 2.0 and Dated: 14/01/2021	Gold Standard Website
/9/	ISO	ISO- 14064-2 ISO- 14064- 3	Dated: 04-2019 Dated- 31/05/2019	ISO Website
/10/	Gold Standard	<u>Renewable energy activity requirements</u>	Version 1.4 and Dated: 16/08/2021	Gold Standard Website
/11/	Gold Standard	<u>Gold standard eligible impact quantification methodologies</u>	Version 2.4 and Dated: 22/06/2023	Gold Standard Website
/12/	UNFCCC CDM	<u>Methodology- ACM0002 “Grid-connected electricity generation from renewable sources</u>	Version 20.0 and Dated: 28/11/2019	CDM Website
/13/	Infinite Environmental Solutions Limited	GS4GG PDD	Version 06 and Dated 11/01/2021	Gold Standard Website
/14/	Infinite Environmental Solutions Limited	Monitoring Report	Version 01 and Dated 24/01/2024 Version 02 and Dated 09/02/2024 Version 03 and Dated 04/04/2024 Version 04 and dated 10/06/2024	Infinite Environmental Solutions Limited
/15/	Infinite Environmental Solutions Limited	ER Sheet	Version 01 and Dated 24/01/2024 Version 02 and Dated 09/02/2024 Version 2.1 dated 10/06/2024	Infinite Environmental Solutions Limited
/16/	Juniper Green Sigma Private Limited	Commissioning certificates	Dated: 17/10/2020, 19/10/2020, 28/11/2020, 09/12/2020 and 17/12/2020	Infinite Environmental Solutions Limited
/17/	Juniper Green Sigma Private Limited	Technical specifications	N/A	Infinite Environmental Solutions Limited
/18/	Juniper Green Sigma Private Limited	Single Line diagram of the project (SLD)	N/A	Infinite Environmental Solutions Limited



/19/	LGAI Technological Center, S. A	Design Certification (Validation) Report	Version 02 and Dated 11/09/2020	Gold Standard Website
/20/	LGAI Technological Center, S.A	Registered previous Verification report	Version 1.2 and Dated 05/02/2024	Gold Standard Website
/21/	Juniper Green Sigma Private Limited	Training Records applicable for current monitoring period	N/A	Infinite Environmental Solutions limited
/22/	Juniper Green Sigma Private Limited	Employment records and salary slips of personnels applicable for the current monitoring period	N/A	Infinite Environmental Solutions limited
/23/	Juniper Green Sigma Private Limited	Grievance Register Photograph	N/A	Infinite Environmental Solutions limited
/24/	GUVNL	Joint Monitoring Report	N/A	Infinite Environmental Solutions limited
/25/	Juniper Green Sigma Private Limited	Invoices	N/A	Infinite Environmental Solutions limited
/26/	Juniper Green Sigma Private Limited	O&M Agreement	N/A	Infinite Environmental Solutions limited
/27/	Govt. Entity	Power Purchase Agreement	Dated: 21/05/2019	Infinite Environmental Solutions limited
/28/	Hi-Tech Meter Laboratory	Calibration Certificates of energy meters installed	Dated: 08/07/2023, 08/08/2023, 20/06/2023	Infinite Environmental Solutions limited
/29/	VKU Certification	Remote Inspection- Site Photographs	Dated: 16/01/2024	N/A
/30/	N/A	GPS Map Camera app	N/A	N/A
/31/	N/A	Google Earth Software	N/A	N/A
/32/	VKU Certification	Remote Personnel and Stakeholders Interview	Dated: 16/01/2024	N/A
/33/	VKU Certification	VKU.F62W.Field Assessment Checklist for Remote Visit	Dated: 16/01/2024	N/A
/34/	VKU Certification	VKU.F46W. Attendance Sheet of Remote audit	Dated: 16/01/2024	N/A
/35/	Central Electricity Authority	<u>CO2 Baseline Database for Indian Power Sector</u>	Version 15 and Dated: 12/2019	Central Electricity Authority website
/36/	Juniper Green Sigma Private Limited	Self- declaration for no double counting	12/01/2024	Infinite Environmental Solutions limited



/37/	UNFCCC CDM	<u>CDM validation and verification standard for project activities</u>	Version 3.0 Dated- 09/09/2021	CDM Website
/38/	UNFCCC CDM	<u>Tool to calculate the emission factor for an electricity system</u>	Version 7 and Dated: 31/08/2018	CDM Website
/39/	UNFCCC CDM	<u>Tool for the demonstration and assessment of additionality</u>	Version 7.0 and Dated: 23/11/2012	CDM Website

5. Certification Statement

VKU Certification Private Limited (VKU Certification), contracted by Infinite Environmental Solutions Limited, has performed the independent verification of the emission reductions for the GS4GG project activity 7572 “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” in India for the monitoring period 01/07/2023 – 31/12/2023 (both dates included) as reported in the Monitoring Report (public) version 04 dated 10/06/2024/14/. Infinite Environmental Solutions 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 V 20.0 /12/ the monitoring plan contained in the PDD Version 06 dated 11/01/2021/13/, Monitoring Report (public) version 04 dated 10/06/2024/14/ 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 01/07/2023 – 31/12/2023 (both dates included) are fairly stated in the Monitoring Report (final) Version 4 dated 10/06/2024 /14/. The GHG emission reductions were calculated correctly based on the approved baseline and monitoring methodology ACM0002 V 20.0 /12/ and the monitoring plan contained in the PDD Version 06 dated 11/01/2021/13/.

VKU Certification Private Limited is able to certify that the emission reductions from the GS4GG project activity 7572 “120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat” in India during the period 01/07/2023 – 31/12/2023 (both dates included) amount to **122,205 tCO₂e**.

Verified and certified emission reductions as per commitment period:

Commitment period	Amount
From: 01/07/2023 – 31/12/2023 (both dates included)	122,205 tCO ₂ e

Dr Vikas Kumar Aharwal
Founder and Director
VKU Certification Private Limited

21/06/2024
Indore, India

6. VERIFICATION FINDINGS (CAR/CL/FAR)

Project Title: 120 MW Solar PV Plant by Juniper Green Sigma Private Ltd. in Gujarat

CL: Clarification Request **02**

CAR: Corrective Action Request **02**

FAR: Forward Action Request **00**

Type	Date	19/01/2024			
CL#01	Reference	Section A of verification protocol /DR/RSV/AT Section B of verification protocol /DR/RSV/AT			
Description of the Non-Conformance					
1. Section B.1. of MR: Declaration for no other form of credit received for current monitoring period 2. Section C of MR: - PD needs to provide the document to substantiate the claim - Are the dates Inclusive of both dates? 3. Section D.2 of MR: - PD needs to provide document to verify the same - PD needs to provide work contract for the same - PD needs to provide supporting documents for the same					
1 st Response from PD		Date	09/02/2024		
1. Section B.1. of MR: Declaration of no double counting for the current monitoring period is provided. 2. Section C of MR: - JMR / Invoices are shared for cross verification. - Yes, monitoring period dates are mentioned inclusive of both dates. 3. Section D.2 of MR: - Salary slips are provided for cross verification. - Offer letters are provided for cross verification. - Offer letters & salary slips are provided.					
1 st Assessment Team	by Audit	Status	Closed	Date	16/02/2024
1. Section B.1. of MR: During verification assessment team found that declaration of no double counting for the current monitoring period is now provided. Hence accepted. 2. Section C of MR: During verification assessment team found that JMR / Invoices are now provided. Hence accepted.					

- During verification assessment team found that monitoring period dates mentioned are inclusive of both dates. Hence accepted.

3. Section D.2 of MR:

- During verification assessment team found that Salary slips are now provided. Hence accepted.
- During verification assessment team found that offer letters are now provided. Hence accepted.
- During verification assessment team found that required documents are now provided. Hence accepted.

Hence Accepted #CL01 Closed.

Type	Date	01-April-2024
CL#02	Reference	Section B of verification protocol /TR comments Section C of verification protocol /TR comments Section D of verification protocol /TR comments Section E of verification protocol /TR comments
Description of the Non-Conformance		
1. Key Project Information: Proof of the PDC not provided by the PD. 2. In section B.1 of MR: Total DC capacity is coming to 175.213 MW. 3. In section B.1.1 of MR: As per previous VR, FAR was closed and it was related to annual report non submission. The point under discussion was mentioned as CAR 04 in previous verification and was closed successfully. 4. In section B.2.2 of MR: However, there is a correction mentioned in previous MP FVR and approved by GS4GG. 5. In section C of MR: - Approximate distance from the plant. - What procedures or standard is applied for the same. 6. In section D of MR: - Is it for the monitoring period? For 22 employees it comes to Rs 1371/- per day. What is the basis and how is it complying with state government norms as per		

minimum wages act 1948. State government because there are only 45 trades under central government while under state government jurisdiction it is more than 1500.

- Are 22 employees fixed? Are there any turnover rates or attrition? What system is at place to record these situations.

7. In section SDG indicator 4.3.5 of MR:

- Since the parameter is measured why is the units NA?
- Transformer oil is a hazardous waste. How is it disposed.

8. In section E.6 of MR:

Please provide the records.

9. Appendix-1:

What is the previous calibration date in order to check if the calibration is performed within 3 years duration.

10. Appendix-2:

What is the total number of employees at site? Are all employees given at least one training?

1 st Response from PP	Date	04-April-2024
1. Key Project Information: The webpage screenshot is submitted with the responses as a proof of design certification date. 2. In section B.1 of MR: Yes, DC capacity of the project activity is 175.213 MW and AC capacity is 120 MW. 3. In section B.1.1 of MR: The included FAR is mentioned in previous performance review feedback and as per TEMPLATE GUIDE - Monitoring Report V.1.1 Declare any Forward Action Requests from Design Certification (1st Monitoring Period) or previous Performance Certifications hence, this FAR is included. 4. MR: In section B.2.2 of MR: The correction mentioned in previous performance review is added in the section. 5. In section C of • The information is not required as per TEMPLATE GUIDE - Monitoring Report V1.1. • The procedures to maintain the accuracy is added. 6. In section D of MR: Minimum wage rates in India are fixed under the Code on Wages, 2019. the provisions of the Minimum Wages Act, 1948, have been rationalized and subsumed under the Code on Wages, 2019. Since labour is a concurrent subject under the Indian Constitution, minimum wage rates are determined both by the Central Government and the Provincial Governments. The Wage Code prohibits employers from paying workers less than the minimum wages. Since in the project activity the employer (PD) is paying wages more than the		

Minimum Wages notified by the Chief Labour Commissioner, Govt. of India; it is in line with the Code on Wages, 2019.

Also, the minimum wage rates notified by the Chief Labour Commissioner, Govt. of India are higher than the minimum wage rates notified by Gujarat government. Therefore, the same has been considered for comparison.

7. In section SDG indicator 4.3.5 of MR:

- The unit is added.
- The waste has been disposed by the 3rd party waste handler.

8. In section E.6 of MR: The monitoring period consist of July, Aug, Sept, Oct, Nov and Dec. months and the mentioned months are comes in winter and rainy season in India hence this is lower yield months.

9. Appendix-1: The mentioned calibration details are covering the whole monitoring period hence the previous calibration date is not required.

10. Appendix-2: The training details are site wise so no of attendees are for given site only.

1stAssessment by Audit Team	Status	Closed	Date	24-April-2024
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1. Key Project Information: Proof of design certification date is now provided. Hence Accepted.

2. In section B.1 of MR: DC capacity of the project activity is 175.213 MW and AC capacity is 120 MW. Hence Accepted.

3. In section B.1.1 of MR: The FAR is now included. Hence Accepted.

4. In section B.2.2 of MR: Correction is now added. Hence Accepted.

5. In section C of MR:

- Mentioned by PD as per requirement. Hence Accepted.
- The procedures to maintain the accuracy is added. Hence Accepted.

6. In section D of MR: Minimum wages requirement is followed. Hence Accepted.

7. In section SDG indicator 4.3.5 of MR:

- The unit is added. Hence Accepted.
- The waste has been disposed by the 3rd party waste handler. Hence Accepted.

8. In section E.6 of MR: PD has mentioned details for lower generation. Hence Accepted.

9. Appendix-1: The mentioned calibration details are covering the whole monitoring period. Hence Accepted.

10. Appendix-2: The training details are site wise so no of attendees are for given site only. Hence Accepted.

Hence Accepted #CL 02 Closed.

Type	Date	19/01/2024
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CAR#01	Reference	Section A of verification protocol /DR/RSV/AT Section B of verification protocol /DR/RSV/AT		
Description of the Non-Conformance				
1. Key Project Information: Write in terms of standard units and not GS units. 2. Section A.2 of MR: - During assessment via google earth assessment observed that the coordinates provided here is showing Bhordu and not Babsar. PD to mention the same - During assessment via google earth assessment observed that the coordinates provided here is showing Babsar and not Bhordu. PD to mention the same 3. Section B.1. of MR: Not consistent as per registered PDD 4. Section E.5 of MR: How the no. of employees in the current monitoring period can be 22 since only 19 employees were hired and there is no hiring done in current monitoring period. 5. Appendix section of MR: Calibration is not covering monitoring period. PD to provide details of calibration for current monitoring period.				
1 st Response from PD	Date	09/02/2024		
1. Key Project Information: Corrected in revised MR. 2. Section A.2 of MR: - The coordinates were interchanged for Babsar & Bhordu site therefore it is corrected in revised MR. - The coordinates were interchanged for Babsar & Bhordu site therefore it is corrected in revised MR. 3. Section B.1. of MR: The capacity and Commissioning dates were expected at the time of Registration hence registered PDD has expected capacities & commissioning dates. In MR same are mentioned in line with commissioning certificates. 4. Section E.5 of MR: There are 22 employees working in current monitoring period since 20 are old employees and 2 employees are hired during the current monitoring period. 5. Appendix section of MR: The latest calibration details are updated and the it is covering the complete monitoring period.				
1 st Assessment by Audit Team	Status	Closed	Date	16/02/2024
1. Key Project Information: During verification assessment team found that units are ccorrected in revised MR. Hence accepted. 2. Section A.2 of MR: - During verification assessment team found that the coordinates were interchanged for Babsar & Bhordu site therefore it is now corrected in revised MR. Hence accepted. - During verification assessment team found that the coordinates were interchanged for Babsar & Bhordu site therefore it is now corrected in revised MR. Hence accepted. 3. SectionB.1. of MR: During verification assessment team found that the capacity and Commissioning dates are now made consistent. Hence accepted.				

4. **Section E.5 of MR:** During verification assessment team found that PD has now about the total employees. Hence accepted.
5. **Appendix section of MR:** During verification assessment team found that the latest calibration details are updated and it is covering the complete monitoring period. Hence accepted.

Hence Accepted #CAR 01 Closed.

Type	Date	01-April-2024
CAR#02	Reference	Section A of verification protocol /TR comments Section B of verification protocol /TR comments Section E of verification protocol /TR comments Section G of verification protocol /TR comments

Description of the Non-Conformance

1. **Key Project Information:** Update at the time of submission.
2. **In table 1:** Units not mentioned as GS product label.
3. **In section A.4 of MR:** State the crediting period order number.
4. **In section B.1 of MR:**
 - Transformer details, voltage details of the inverters not given and transformation from panels to switchyard.
 - Total number of panels not given.
 - Make not given.
 - Two type is written while only type is mentioned.
5. **In section E.1 of MR:**
 - Inclusive of both the dates.
 - Refer comment above.
6. **In section G.1 of MR:** Please mention the specific location within the plant.

1 st Response from PP	Date	04-April-2024
1. Key Project Information: The version number of the monitoring report and Completion date of the monitoring report is updated at the time of submission. 2. In table 1: The mentioned unit is consistent with table 1 of TEMPLATE GUIDE - Monitoring Report V1.1. 3. In section A.4 of MR: The crediting period order number is incorporated. 4. In section B.1 of MR: • The information is not required as per TEMPLATE GUIDE - Monitoring Report V1.1. • The information is not required as per TEMPLATE GUIDE - Monitoring Report V1.1. • The make is mentioned in just above row please refer the same.		

- The make of modules is different but rating for both the makes is same which is 405 Wp. 5. In section E.1 of MR: - Yes, it is Inclusive of both the dates and the same is added. - Yes, it is Inclusive of both the dates and the same is added. 6. In section G.1 of MR: The location of grievances register is added.
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1stAssessment by Audit Team	Status	Closed	Date	24-April-2024
1. Key Project Information: The version number of the monitoring report and Completion date of the monitoring report is updated. Hence Accepted. 2. In table 1: The mentioned unit is consistent. Hence Accepted. 3. In section A.4 of MR: The crediting period order number is incorporated. Hence Accepted. 4. In section B.1 of MR: - The information is as per requirement. Hence Accepted. - The information is as per requirement. Hence Accepted. - The make is mentioned in just above row please refer the same. Hence Accepted. - Types of modules are now mentioned. Hence Accepted. 5. In section E.1 of MR: - Dates are inclusive of both the dates and the same is added. Hence Accepted. - Dates are inclusive of both the dates and the same is added. Hence Accepted 6. In section G.1 of MR: The location of grievances register is added. Hence Accepted. Hence Accepted #CAR 02 Closed.				

Type		Date	DD-Month-YYYY	
FAR		Reference	Section of Val/Ver protocol	
Description of the Non-Conformance				
1 st Response from PP		Date	DD-Month-YYYY	
1 st Assessment by Audit Team	Status	Open/Closed	Date	DD-Month-YYYY



2nd Response from PP			Date	<u>DD-Month-YYYY</u>
2nd Assessment by Audit Team	Status	<u>Open/Closed</u>	Date	<u>DD-Month-YYYY</u>

Declaration

All CARs, CLs, and FARs from the Verification

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 REVIEWER

Team Leader-

COMPETENCE STATEMENT

Name	Barun Kumar
Nationality	Indian
Countries of Experience	India, South Africa, Kenya, Uganda, DR Congo, Zambia
Education Qualification	B.Sc. (Environmental Science & 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

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	NO
Verifier	NO
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	NO
TA Expert (1.2, 3.1, 6.1, 7.1)	YES
Financial Expert	NO

Reviewed by	Vandana Gupta (Quality Manager)	Date	06/12/2022
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	06/12/2022

Validator/ Verifier- Trainee

COMPETENCE STATEMENT

Name	Monika Jha
Nationality	India
Countries of Experience	India
Education Qualification	M.Sc. - Environmental Sciences PG Diploma - Environmental Sciences and Sustainable Development B.Sc. – CBZ
Year of Experience	2 Years
Area of Expertise	Climate Change & Environment Industry
Eligible Sectoral Scope	N/A

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	Apoorva Gupta (Quality Manager)	Date	23/10/2023
Approved by	Barun Kumar (Technical Manager)	Date	23/10/2023

COMPETENCE STATEMENT

Name	Priyanshee Modi
Nationality	Indian
Countries of Experience	India
Education Qualification	M.Sc. (Biotechnology) B.Sc. (Biotechnology)
Year of Experience	Fresher
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	05/06/2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	05/06/2023

Technical Reviewer

COMPETENCE STATEMENT

Name	Sanjay Kumar K
Nationality	Indian
Countries of Experience	India
Education Qualification	B.E. (Civil Engineering) M. Tech (Environmental Engineering)
Year of Experience	20 Years +
Area of Expertise	Climate Change & Environment Sustainable Development GHG Footprints
Eligible Sectoral Scope	TA 1.2 - Renewables TA 3.1 - Energy Demand TA 6.1 - Construction

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)	YES
Financial Expert	YES

Reviewed by	Vandana Gupta (Quality Manager)	Date	03.03.2023
Approved by	Vivek Kumar Ahirwar (Technical Manager)	Date	03.03.2023

Appendix 1: Training Details

Total No. of Trainings Given - 15

Khadol site: -

S. No	Date	Topic of training	No. of Attendees
1.	10-Aug-23	Electrical Safety Training	4
2.	11-Sep-23	Special EHS Training (Electrical Safety, LOTOTO, BBS, Emergency Response, CEA)	5
3.	21-Sep-23	5S Training	6
4.	19-Dec-23	Material Handling Training	5

Babsar site: -

S. No	Date	Topic of training	No. of Attendees
1.	9-Aug-23	Electrical Safety Training	4
2.	12-Sep-23	Special EHS Training (Electrical Safety, LOTOTO, BBS, Emergency Response, CEA)	5
3.	18-Sep-23	5S Training	4
4.	26-Oct-23	Height Work Training	5
5.	13-Dec-23	Material Handling Training	5

Bhordu site: -

S. No	Date	Topic of training	No. of Attendees
1.	27-Jul-23	Electrical Safety Training	3
2.	23-Aug-23	Emergency drill & evacuation	4
3.	5-Sep-23	5S Training	4
4.	13-Sep-23	Special EHS Training (Electrical Safety, LOTOTO, BBS, Emergency Response, CEA)	9
5.	28-Oct-23	Height Work Training	4
6.	18-Dec-23	Material Handling Training	5

Appendix 2: Technical Details

The technical specifications are given below:

For Village Bilvaniya, Vantda Suka, Tal. - Dhansura, Dist.-Aravali

Capacity	25 MW (AC) / 36.247 MW (DC)
SPV Modules – Type/make	Monocrystalline / Trina Solar
No. of Photovoltaic Modules / Rating	72492 / 405 Wp, 16800 / 410 Wp
Inverters – Type/make	String/Sungrow

No. of Inverter / Rating	125 /200 KW
ABT Meter – Make / Serial No.	Secure / GJ-4608 - A
Name of Substation	66 kV GETCO Substation, Khadol

For Village Babsar, Tal-Vadali, Dist. -Sabarkantha

Capacity	25 MW (AC) / 36.41 MW (DC)
SPV Modules – Type/make	Monocrystalline / JA Solar & Trina Solar
No. of Photovoltaic Modules / Rating	52192 / 405 Wp, 19656 / 410 Wp & 3640 / 405 Wp, 14000 / 410 Wp
Inverters – Type/make	String/Sungrow
No. of Inverter / Rating	125 /200 KW
ABT Meter – Make / Serial No.	Secure / GJ-4585 - A
Name of Substation	66 kV GETCO Substation, Babsar

For Village Babsar, Tal-Vadali, Dist. -Sabarkantha

Capacity	10 MW (AC) / 14.696 MW (DC)
SPV Modules – Type/make	Mono PERC / JA Solar & Trina Solar
No. of Photovoltaic Modules / Rating	36288 / 405 Wp
Inverters – Type/make	String/ Sungrow
No. of Inverter / Rating	50 /200 KW
ABT Meter – Make / Serial No.	Secure / GJ-4585 - A
Name of Substation	66 kV GETCO Substation, Babsar

For Village Bilvaniya, Vantda Suka, Tal–Dhansura, Dist. - Aravalli

Capacity	20 MW (AC) / 29.459 MW (DC)
SPV Modules – Type/make	Mono PERC / Trina Solar
No. of Photovoltaic Modules / Rating	50064 / 405 Wp, 22400 / 410 Wp
Inverters – Type/make	String/ Sungrow
No. of Inverter / Rating	100 /200 KW
ABT Meter – Make / Serial No.	Secure / GJ-4608 - A
Name of Substation	66 kV GETCO Substation, Khadol

For Village-Bhordu, Tal-Tharad, Dist.- Banas kantha

Capacity	25 MW (AC) / 36.541 MW (DC)
SPV Modules – Type/make	Mono PERC / JA Solar
No. of Photovoltaic Modules / Rating	71092 / 405 Wp, 18900 / 410 Wp

Inverters – Type/make	String/ Sungrow
No. of Inverter / Rating	125 /200 KW
ABT Meter – Make / Serial No.	Secure / GJ-4605 - A
Name of Substation	66 kV GETCO Substation, Bhordu

For Village-Bhordu, Tal-Tharad, Dist.- Banas kantha

Capacity	15 MW (AC) / 21.86 MW (DC)
SPV Modules – Type/make	Mono PERC / JA Solar
No. of Photovoltaic Modules / Rating	36260 / 405 Wp, 17500 / 410 Wp
Inverters – Type/make	String/ Sungrow
No. of Inverter / Rating	75 /200 KW
ABT Meter – Make / Serial No.	Secure / GJ-4605 - A
Name of Substation	66 kV GETCO Substation, Bhordu

Appendix 3: Calibration Details

1. For 35 MW solar plant connected to Babsar Substation:

S.No.	Meter Number	Type	Make	Accuracy class	Date of calibration	Due date
1	GJ4583A	Main meter	Secure	0.2s	20/06/2023	19/06/2026
2	GJ4584A	Check meter	Secure		20/06/2023	19/06/2026
3	GJ4585A	Standby meter	Secure		20/06/2023	19/06/2026

2. For 40 MW solar plant connected to Bhordu Substation:

S.No.	Meter Number	Type	Make	Accuracy class	Date of calibration	Due date
1	GJ4603A	Main meter	Secure	0.2s	21/07/2020	20/07/2023
					08/07/2023	07/07/2026
2	GJ4604A	Check meter	Secure	0.2s	21/07/2020	20/07/2023
					08/07/2023	07/07/2026
3	GJ4605A	Standby meter	Secure	0.2s	21/07/2020	20/07/2023
					08/07/2023	07/07/2026

3. For 45 MW solar plant connected to Khadol Substation:

S.No.	Meter	Type	Make	Accuracy	Date of	Due date
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Certification Pvt. Ltd.

VKU.F27W. Verification Report

	Number			class	calibration	
1	GJ4606A	Main meter	Secure	0.2s	18/08/2020	17/08/2023
					08/08/2023	07/08/2026
2	GJ4607A	Check meter	Secure	0.2s	18/08/2020	17/08/2023
					08/08/2023	07/08/2026
3	GJ4608A	Standby meter	Secure	0.2s	18/08/2020	17/08/2023
					08/08/2023	07/08/2026

Appendix 4: Commissioning Details

S.No.	Organization name	Location	Capacity (AC)	Date of Commissioning
1	Juniper Green Sigma Private Limited	Village Bilvaniya, Vantda Suka, Tal. - Dhansura, Dist.-Aravali	25 MW	17/10/2020
2		Village Babsar, Tal-Vadali, Dist. - Sabarkantha	25 MW	19/10/2020
3			10 MW	28/11/2020
4		Village Bilvaniya, Vantda Suka, Tal–Dhansura, Dist. - Aravalli	20 MW	28/11/2020
5		Village-Bhordu, Tal-Tharad, Dist.- Banas kantha	25 MW	09/12/2020
6			15 MW	17/12/2020

**History of the Document**

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

*Amendment Summary adopted in VKU System on 12.10.2022