



100 MW SOLAR POWER PLANT IN MAHARASHTRA

Project Title	100 MW Solar Power plant in Maharashtra
GS ID of Project	7533
Version of the Validation Report	03
Completion date of the Validation Report	17-October-2024
Date of Design Certification	16-June-2020
Version number of the corresponding Design Certification	NA
Project Representative	Infinite Environmental Solutions limited
Project Developer	Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd.
Project Participants and any communities involved	NA
Activity Requirements applied	Renewable Energy
Scale of the Project Activity	Large Scale

Methodology (ies) applied and version number	ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0 ¹
Product Requirements applied	GHG Emission Reduction & Sequestration
Project Cycle	Retroactive
Other Requirements applied	NA

VKU Project ID	VKU.VAL.15.24_GS_7533
Prepared By	VKU Certification Private Limited
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¹ <https://cdm.unfccc.int/UserManagement/FileStorage/R0IJ1X9LQ7W2GOYHSMBFCPE3VKZ685>

A. OBJECTIVE

Infinite Environmental Solutions Limited (Project Representative) and Juniper Green Energy Pvt. Ltd. (Project Developer) have contracted VKU Certification Private Limited to conduct validation of Design Certification Renewal for Crediting Period (31st December, 2024 to 30th December 2029 for the GS4GG project activity (GS_7533) Title- **“100 MW Solar Power plant in Maharashtra”**.

The objective of this Design Certification Renewal is to have an independent third-party assessment of the GS4GG PDD and compliance with the GS requirements /8//9//10//11//12//13//14//15//16//17//18//19//20/ as described in the Gold Standard documentation and supporting documents provided by the project representative /26//27//28//29//30//31//32//33//34//35//36//37//38//39//. The Project Activity (GS_7533) is applying for validation Design Certification Renewal of crediting period under the GS4GG programme requirement and it is seen as necessary to provide assumptions about the:

- Changes in the Project as related to the GS4GG General Eligibility Criteria.
- Incorporation of any relevant updates to the GS4GG Requirements.
- Re-definition of Baseline Scenario and any impact of change on the Eligibility Principles, Criteria, and Requirements.
- Any Gold Standard activity, product, and methodology-specific Requirements.
- Demonstration of Ongoing Financial Need.
- The impact of new relevant national and/or sectoral policies and circumstances on the baseline.
- The correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update.
- The estimation of emission reductions for the applicable crediting period.

The Project Activity is to generate electrical energy through sustainable means using solar power resources, the generated green electricity contributes to climate change mitigation efforts. This project activity is a large-scale solar project and requirements of the applied methodology “ACM0002 “Grid-connected electricity generation from renewable sources” Version 22.0 /21/. The project will replace anthropogenic emissions of greenhouse gases (GHGs) estimated to be approximately 216,494 tCO₂ per annum over the crediting period, thereon displacing 231,495.63MWh/year amount of electricity from the generation-mix of power plants connected to the Indian electricity grid, which is mainly dominated by thermal/ fossil fuel-based power plant

B. SCOPE AND CRITERIA OF THE VALIDATION

The validation scope is defined as the independent and objective review of the Key project information & project design document PDD /01/, monitoring plan, and other relevant supporting documents which is mentioned in section 3.1 of this report. The information in these documents is reviewed against all

applicable GS requirements including the baseline and monitoring methodology ACM0002 “Grid-connected electricity generation from renewable sources” Version 22.0/21/.

The documents /26/ /27/ /28/ /29/ /30/ /31/ /32/ /33/ /34/ /35/ /36/ /37/ /38/ / /39/ has submitted to the VKU Assessment team by project representative were reviewed against the following standards, methodology, tools and guidelines:

- GS4GG Principles and Requirements; Version 1.2, dated: 23-October-2019 /08/
- GS4GG Validation and verification standard; Version 1.0, dated: 06-March-2023 /12/
- CDM Validation and Verification standard for project activities; Version 3.0 /20/
- Renewable energy activity requirements; Version 1.4, dated: 16-August-2021 /16/
- GHG Emissions Reduction & Sequestration Product Requirements; Version 2.2, dated: 28-August-2023 / 17 /
- Safeguarding principles & requirements; Version 2.1, dated: 29-June-2023 / 10 /
- Stakeholder consultation and engagement requirements; Version 2.1, dated: 14-June-2022 /9/
- Design change requirements; Version 1.1, dated: 14-April-2023 /11/
- Site visit and remote audit requirements and procedures; Version 2.0, dated: 30-May-2023 /13/
- Applicability of minimum site visit requirement by VVB; Version 2.0, dated: 16-August-2021 /14/
- GS4GG Validation & verification body requirements; Version 2.0, dated: 14-January-2021 /12/
- Template Guide: Key Project Information & Project Design Document (PDD) Version 1.5, dated 29-June-2023 /19/
- Gold standard eligible impact quantification methodologies; Version 2.4, dated:22-June-2023 /18/
- ACM0002 “Grid-connected electricity generation from renewable sources” Version 22.0 /21/
- Tool 1: Tool for the demonstration and assessment of additionality Version 07.0.0 /22/
- Tool 7: Tool to calculate the emission factor for an electricity system Version 07.0.0 /23/
- Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the Design Certification Renewal Version 3.0.1 /24/

- CDM – CO₂ Baseline Database (CO₂ Baseline Database for Indian Power Sector); Version 19.0 /25/
- VKU QMS Procedures and SOPs – Internal procedural documents of VKU Certification Pvt. Ltd. /48/

Based on the recommendations in the GS4GG Validation and Verification Standard for Project Activities, Version 1.0/12/ the validation team has employed a rule-based approach, focusing on the identification of significant risks for the monitoring plan and the generation of GS-VERs.

The validation is not meant to provide any consulting to the project developer and project representative/coordinating managing entity. However, stated requests for clarifications and corrective actions/forward action requests may have provided input for the improvement of the project design. While carrying out the validation, VKU Certification Private Limited determines if the Project Activity complies with the requirements of GS4GG validation and verification standard v1.0/12/, GS4GG principle and requirements v1.2/8/, the applicability conditions of the selected methodology /21/, guidance issued by the Gold Standard and also assess the claims and assumptions made in the final GS4GG Key Project Information & Project Design Document (PDD) /1/ without limitation on the information provided by the project developer

C. VALIDATION METHODOLOGY AND PROCESS

The method and process are undertaken by a competent validation team (refer to Section 2.1) which involves the following steps:

1. The desk review of initial documents and evidence submitted by the project representative in the context of the GS4GG criteria along with CDM rules and guidelines issued by CDM EB.
2. SOP 4 of VKU QMS Process; Version 3.0, dated: 24-November-2023
3. Conducting remote audits, interviews/interactions, and documentation process with the project representatives, Project developer, site personnel, and other stakeholders.
4. Reporting audit findings with respect to non-conformities as CLs, CARs and FARs as well as closure of the findings, as appropriate, and preparing a draft validation report based on the auditing findings and conclusions.
5. Technical review of the draft validation report along with other documents as appropriate by an independent technical reviewer and approval of the validation report.

6. The resolution of outstanding issues and the issuance of the final validation report and opinion.

The report is based on the assessment of the final GS4GG Key Project Information & Project Design Document (PDD) /1/, ER Sheet/2/, remote audit, application of standard auditing techniques as per the GS4GG general requirement for all audit instances including but not limited to document reviews and stakeholder interviews, review of the applied methodology and their underlying formulae and calculations.

This report contains the findings in term of CARs, CLs or FARs and resolutions from the validation and a validation opinion on the implemented Project Activity thus confirming the monitoring plan is sound and reasonable and meets the stated GS4GG requirements, host country criteria and correctly applied the GS approved methodology /21/ and tools /22/ /23/ /24/

D. VALIDATION CONCLUSION

VKU Certification Pvt. Ltd. has successfully completed the validation(RCP) process for the GS Project Activity, namely the **"100 MW Solar Power plant in Maharashtra" (GS 7533)**, as outlined in the Project Design Document (PDD) /1/ and supporting document /26/ /27/ /28/ /29/ /30/ /31/ /32/ /33/ /34/ /35/ /36/ /37/ /38/ /39/. The validation confirms that the project adheres to all relevant GS requirements for Project Activities, also compliance with methodologies, tools, and guidelines.

The monitoring methodology ACM0002 "Grid-connected electricity generation from renewable sources" Version 22.0 has been appropriately applied to the project activity for the whole crediting period (5 years) and is deemed applicable/21/.

The validation (RCP) process was conducted in accordance with ISO 14064-03:2019 and GS standards, along with host country criteria. Our approach is risk-based, drawing on an understanding of the risks associated with estimated GHG emissions data.

VVB has conducted remote site visit as per Clause 3.1 of the "Site Visit and Remote Audit Requirements and Procedures" which stipulates that a Remote audit can be conducted for this validation (RCP). Despite a comprehensive review of documents of project activity, VVB has conducted remote visit and stakeholder interviews. VKU has found that the Project Developer (PD) has provided sufficient evidence for draw a conclusion at the project's current stage. As a result, VKU Certification Pvt. Ltd. asserts the issuance of a positive opinion based on our thorough validation process.

- Start date of the project activity: 10-July-2019 (date of issue of first purchase order).
- **1st Crediting period:** From 31-December-2019 to 30-December-2024 (Including the first date and last date).

Current Design Certification Renewal:

- **2nd Crediting Period:** From 31-December-2024 to 30-December-2029², (Including first date and last date).
- Crediting Period Length: 05 Years

Validated estimated GHG emission reductions and carbon dioxide removals for the project for 2nd crediting period:

YEAR of 2 nd crediting period	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
31-December-2024 to 30-December-2025	219,546 tCO ₂	0 tCO ₂	219,546 tCO ₂
31-December-2025 to 30-December-2026	218,010 tCO ₂	0 tCO ₂	218,010 tCO ₂
31-December-2026 to 30-December-2027	216,484 tCO ₂	0 tCO ₂	216,484 tCO ₂
31-December-2027 to 30-December-2028	214,968 tCO ₂	0 tCO ₂	214,968 tCO ₂
31-December-2028 to 30-December-2029	213,463 tCO ₂	0 tCO ₂	213,463 tCO ₂
Total	1,082,471 tCO ₂	0 tCO ₂	1,082,471 tCO ₂
Annual Average over the crediting period	216,494 tCO ₂	0 tCO ₂	216,494 tCO ₂

Sustainable Development Goals Targeted	Most Relevant SDG Target	SDG Impact (Indicator (proposed or SDG indicator))
SDG 13: Climate Action Take Urgent Action to combat climate change and its impacts (mandatory)	13.2: Integrate climate change measures into national policies, strategies and planning. Target: 216,494 tCO ₂ reductions per annum	Impact: Emission reductions in tCO ₂ e Indicator: 13.2.2 Total greenhouse gas emissions per year

The Crediting Period under GS4GG will be as follows:

1st Crediting Period – 31-December-2019 to 30-December-2024 (Both dates are inclusive)

2nd Crediting Period - 31-December-2024 to 30-December-2029 (Both dates are inclusive)

SDG 7: Affordable and Clean Energy Ensure access to affordable, reliable, sustainable and modern energy for all.	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix Target: 231,495 MWh per annum	Impact: MWh of renewable energy generation Indicator: 7.2.1 Renewable Energy share in total final energy consumption
SDG 8: Decent Work and Economic Growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. Target: Provide at least 38³ Employment/year 8.6: By 2030, substantially reduce the proportion of youth not in employment, education or training. Target: Provide a minimum 1 training/Year	Impact: Employment generated through the project. Indicator: 8.5.1 Avg. hourly earnings of female and male employees, age, and persons with disabilities. Impact: Number of Trainings provided. Indicator: 8.6.1 Proportion of youth (aged 15-24 yrs.) not in education, employment or training.

³ The value in PDD of CP1 is 67 which was overestimated so the estimation is revised as per the actual scenario of the project and the same can be verified from all the previous verification documents.

CONTENTS

1	EXECUTIVE SUMMARY.....	10
2	VALIDATION TEAM, TECHNICAL REVIEWER AND APPROVER.....	12
2.1	Validation team member	12
2.2	Technical Reviewer and Approver of the validation report.....	13
3	MEANS OF VALIDATION.....	14
3.1	Desk/Document Review	14
3.2	Remote Inspection	17
3.3	Interview	20
3.4	Sampling Approach	22
3.5	Clarification Requests, corrective action requests and forward action requests raised	22
4	VALIDATION FINDINGS.....	30
4.1	Purpose and General description of Project	32
4.2	Application and selection of methodologies and standardized baselines	36
4.3	Estimation of emission reductions (SDG 13) or net anthropogenic removals and other Sustainable Development Goals	44
4.4	Monitoring Plan	47
4.5	Project Start date, crediting period type and duration	51
4.6	Environmental Impacts	52
4.7	Local Stakeholder Consultation	52
4.8	Global Stakeholder Consultation	53
4.9	Safeguarding Principle and Gender Sensitive Assessment	54
5	INTERNAL QUALITY CONTROL	55
6	VALIDATION OPINION.....	55
7	MATERIALITY AND LEVEL ASSUMPTION APPLIED	56
7.1	Materiality	56
7.2	Level of Assumption	56
	APPENDIX 2: COMPETENCY STATEMENT	59
	APPENDIX 3: RESOLUTION OF FINDINGS	62
	HISTORY OF THE DOCUMENT	79

1 EXECUTIVE SUMMARY

Infinite Environmental Solutions Limited (Project Representative) and Juniper Green Energy Pvt. Ltd. (Project Developer) has appointed VVB, VKU Certification Pvt. Ltd., as the independent validator to conduct validation of Design Certification Renewal for Crediting Period (31st December, 2024 to 30th December 2029 for the Gold Standard Project Activity titled “**100 MW Solar Power plant in Maharashtra " (GS 7533)** at the State of Maharashtra in India (referred to as the "Project Activity"). This report summarizes the findings of the validation of the project, performed on the basis of Gold Standard criteria Gold standard for global goals (GS4GG), as well as criteria given to provide for ensuring consistent project operations, monitoring, and reporting. The report includes validation outcomes, resolutions, and a validation opinion.

The implemented Project Activity focuses on reducing emission reduction by use of solar resources for electricity generation which is connected to the Indian electricity grid. Its objectives include reducing fossil fuels, promoting sustainable practices in the power sector, and contributing to overall greenhouse gas emissions reduction. This project activity is a large-scale solar project. The project will replace anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 216,494 tCO₂e per annum over the crediting period, thereon displacing 231,495.63MWh/year amount of electricity from the generation-mix of power plants connected to the Indian Electricity grid, which is mainly dominated by thermal/ fossil fuel-based power plant.

The Project Activity employs the ACM0002, version 22: Grid-connected electricity generation from renewable sources. This CDM methodology is also approved under the Gold Standard. The project activity is a 100 MW^{AC} solar power project, promoted by Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd. and involves the installation of a 10 Plant of 10 MW each capacity at different dates and locations in Dhule, Nashik, and Jalgaon districts of Maharashtra, Country India, totaling 100 MW^{AC} solar power project. The electricity generated from the project activity is evacuated through the 33/11 kV sub-stations of different location (Indian Electricity Grid). The commissioning date of project activity for 100 MW is mentioned below in the table.

Commissioning date with the location of Project Activity:

Project Investors' Name	Commissioning Date	Capacity in MW _{AC}	Village/Taluka	District
Nisagra Renewable	31-December-2019	10 MW _{AC}	Indave, Sindhkheda	Dhule
	30-December-2019	10 MW _{AC}	Varul, Shirpur	Dhule

Energy Pvt. Ltd.	07-January-2020	10 MW _{AC}	Chhail, Sakri	Dhule
	29-March-2020	10 MW _{AC}	Mukti	Dhule
	08-January-2020	10 MW _{AC}	Bahirane, Baglan (Satana)	Nashik
	16-January-2020	10 MW _{AC}	Dahidi, Malegaon	Nashik
	07-March-2020	10 MW _{AC}	Vichkheda, Parola	Jalgaon
Juniper Green Energy Pvt. Ltd.	22-January-2020	10 MW _{AC}	Vahelgaon, Nandgaon	Nashik
	23-January-2020	10 MW _{AC}	Rajapur, Yeola	Nashik
	21-March-2020	10 MW _{AC}	Dahiwad, Deola	Nashik

Emission reductions attributable to the Project Activity adhere to Gold Standard for Global Goals (GS4GG) requirements for additionality. These project emission reductions are considered additional to what would have occurred in the absence of the Project Activity. The project activity is the installation of a grid-connected renewable power plant/unit and this is not a CPA that has been excluded from a registered CDM PoA as a result of erroneous inclusion of CPAs. A summary of estimated sustainable development contributions in the final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is as follows:

Sustainable Development Goals Targeted	SDG Impact	Estimated Annual Average	Unit or Products
SDG 13: Climate Action	Emission Reductions	216,494	GS-VERs
SDG 8: Decent Work and Economic Growth	Training	1	No. of Training /year
	Employee	38 ⁴	No. of Jobs /year
SDG 7: Affordable and Clean Energy	MWh of renewable energy generated	231,495.63	MWh/Annum

⁴ The value in PDD of CP1 is 67 which was overestimated so the estimation is revised as per the actual scenario of the project and the same can be verified from all the previous verification documents.

Validation serves as a thorough and independent assessment of the Project Activity against Gold Standard and GS requirements, monitoring plans, and compliance with relevant criteria. It ensures that the monitoring plan is sound and reasonable and meets the stated GS4GGG requirements. Validation (RCP) is a mandatory step for all Gold Standard Voluntary projects, providing assumptions to stakeholders regarding the project's quality and its intended generation of voluntary emission reductions (GS-VERs).

The Project Developer has provided a declaration for not participating and rejection in other GHG programs/39/The Same information has been also checked from the CDM registry along with another registry. The details of the registries checked are as follows:

- 1) <http://cdm.unfccc.int/>
- 2) <https://www.recregistryindia.nic.in/>
- 3) <https://verra.org/verra-standards-and-programs/>
- 5) <https://www.irecstandard.org/>
- 6) <https://cri.nccf.in/>
- 7) [International Carbon Registry](#)
- 8) [GCC Projects Portal](#)

2 VALIDATION TEAM, TECHNICAL REVIEWER AND APPROVER

2.1 Validation team member

S. No.	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk Review	Remote Inspection	Interview	Validation Finding
1.	Team Leader cum Technica	ER ⁶ (External Resource)	Kathuria	Sunil	Outsourced Entity	Y ⁷	Y	Y	Y

⁶ ER: External resource, IR: Internal Resource.

⁷ Y: Yes, N: No

	1 Expert TA.1.2 and Validator/ verifier ⁵								
2.	Validator/Verifier- Trainee	IR (Internal Resource)	Kumari	Komal	VKU Certification Private Limited	Y	Y	Y	N

2.2 Technical Reviewer and Approver of the validation report

S.No.	Role	Type of Resource	Last Name	First Name	Affiliation (e.g., name of central or other office of DOE or outsourced entity)	Signature
1.	Technical Reviewer & Technical Expert	ER (External Resource)	Kumar Ahirwar	Vivek	Outsourced Entity	 Date:17/10/2024
2.	Approver	ER (External Resource)	Kumar Ahirwar	Vivek	Outsourced Entity	 Date: 17/10/2024

2.3 Authorized signatory for VKU

S.No.	Role	Last Name	First Name	Affiliation (e.g., name of central or other office of DOE or outsourced entity)	Signature (Final version only)
1.	Director	Kumar Aharwal	Vikas	VKU Certification Pvt. Ltd.	

⁵ Team Leader is acting as a Validator/ Verifier for this project activity

3 MEANS OF VALIDATION

3.1 Desk/Document Review

List all documents reviewed or references during the validation.

Sl. No.	Title
1.	Key Project Information & Project Design Document (PDD) Version 01, dated 13-June-2024 Version 02, dated 23-July-2024 Version 03, dated 21-August-2024 Version 04, dated 04-October-2024 Prepared by Infinite Environmental Solutions Limited
2.	ER Sheet Version 01, dated 13-June-2024 Version 02, dated 23-July-2024 Version 03, dated 21-August-2024 Version 04, dated 04-October-2024 Prepared by Infinite Environmental Solutions Limited
3.	SDG Impact Tool Version 01, dated 13-June-2024 Version 02-date 23-july-2024 Version 03, dated 04-October-2024 Prepared by Infinite Environmental Solutions Limited
4.	Ongoing Finance Need Sheet: Calculation sheet to demonstrate Ongoing Finance Prepared by Infinite Environmental Solutions Limited
Certification document on the sustain-cert portal	
5.	Project Design Document (PDD) Version 04, dated 04-August-2020 Publicly Available on the Gold Standard for the Global Goals website
6.	Design certification Validation Version 03 dated 04-August-2020 Publicly Available on the Gold Standard for the Global Goals website
7.	1. Performance Review Report 1: Version 03 dated 16-September-2021 2. Performance Review Report 2: Version 2.0 dated 05-February-2022 3. Performance Review Report 3: Version 4.0 dated 26-August-2022 4. Performance Review Report 4: Version 03 dated 01-February-2023 5. Performance Review Report 5: Version 06 dated 21-November-2023

	6. Performance Review Report 6: Version 3.0 dated 02-March-2024 7. Performance Review Report 7: Version 2.0 dated 25-June-2024 Publicly Available on the Gold Standard for the Global Goals website
Guideline and Principal Requirement Document of GS4GG	
8.	<u>Principles and Requirements</u> Version 1.2, dated: 23-October-2019 Publicly Available on the Gold Standard for the Global Goals website
9.	<u>Stakeholder consultation and engagement requirements</u> Version 2.1, dated: 14-June-2022 Publicly Available on GS4GG Webpage
10	<u>Safeguarding principles & requirements</u> Version 2.1, dated: 29-June-2023 Publicly Available on GS4GG Webpage
11	<u>Design change requirements</u> Version 1.1, dated: 14-April-2023 Publicly Available on GS4GG Webpage
12	<u>Validation and verification standard</u> Version 1.0, dated: 06-March-2023 Publicly Available on GS4GG Webpage
13	<u>Site visit and remote audit requirements and procedures</u> Version 2.0, dated: 30-May-2023 Publicly Available on GS4GG Webpage
14	<u>Applicability of minimum site visit requirement by VVB</u> Version 2.0, dated: 16-August-2021 Publicly Available on GS4GG Webpage
15	<u>Validation & verification body requirements</u> Version 2.0, dated: 14-January-2021 Publicly Available on GS4GG Webpage
16	<u>Renewable energy activity requirements</u> Version 1.4, dated: 16-August-2021 Publicly Available on GS4GG Webpage
17	<u>GHG Emissions Reduction & Sequestration Product Requirements</u> Version 2.2, dated: 28-August-2023 Publicly Available on GS4GG Webpage
18	<u>Gold standard eligible impact quantification methodologies</u> Version 2.4, dated: 22-June-2023 Publicly Available on GS4GG Webpage
19	<u>Template Guide: Key Project Information & Project Design Document (PDD)</u> Version 1.5, dated 29-June-2023 Publicly Available on GS4GG Webpage
20	<u>CDM Validation and Verification standard for project activities</u> Version 3.0 Publicly Available on CDM Webpage
Methodology and Tool Applied	
21	ACM0002: <u>Grid-connected electricity generation from renewable sources - Version 22.0</u> Publicly Available on CDM Webpage
22	<u>Tool 1: Tool for the demonstration and assessment of additionality</u> Version 07

	Publicly Available on CDM Webpage
23	<u>Tool 7: Tool to calculate the emission factor for an electricity system</u> Version 07 Publicly Available on CDM Webpage
24	<u>Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period</u> Version 3.0 Publicly Available on CDM Webpage
25	Central Electricity Authority, Ministry of Power <u>CDM – CO₂ Baseline Database (CO₂ Baseline Database for Indian Power Sector)</u> Version 19.0 Publicly Available on CDM Webpage
Supporting Document submitted by PD	
26	Calibration Certificate and Meter replacement certificate by MSEDCL (Maharashtra State Electricity Distribution Company Limited)
27	Commissioning Certificate for 100 MW
28	SDG 8: 1. Employee Training Register 2. Training picture 3. List of No of employee 4. Expense declaration by Juniper green energy dated 05-February-2024 AT has cross-checked the training records of the 1 st crediting period to confirm the reasonableness of the assumptions made by the PD during the current 2 nd Crediting period
29	Company Balance sheets
30	Declaration- ODA (Official Development Association) For this whole crediting period.
31	Credit Note by MSEDCL (Maharashtra State Electricity Distribution Company Limited) AT has cross-checked the invoice of the 1 st crediting period to confirm the reasonableness of the assumptions made by the PD during the current 2 nd Crediting period
32	Invoices: Issued by PD AT has cross-checked the JMR of the 1 st crediting period to confirm the reasonableness of the assumptions made by the PD during the current 2 nd Crediting period.
33	Sale and purchase agreement between PD and Trina Solar Energy Development PTE Ltd.
34	Power Purchase Agreement (PPA) between PD and MSEDCL (Maharashtra State Electricity Distribution Company Limited Dated:12-january-2019
35	Cover Letter dated 14.10.2020 By the Gold Standard for the Global Goals.
36	Technical Details of Solar Panel (AT has cross-checked the previous registered PDD of the 1 st crediting period to confirm the technical details of the implemented project made by the PD during the current 2 nd Crediting period.

37	Grievance Register AT has cross-checked the grievance records of the 1 st crediting period to confirm the implementation of ongoing communication with local stakeholders.
38	Hazardous Waste Sheet N/A (AT has cross-checked the Hazardous Waste Register of the 1 st crediting period to confirm the reasonableness of the assumptions made by the PD during the current 2 nd Crediting period)
39	Declaration by Juniper Green energy dated 19-June-2024 for: - Juniper Green Energy Pvt. Ltd. is the Project Proponent/Developer of the project activity. - There is no use of ODA (Official Development Association) funds from Annex-1 (Developed) . - The project is not rejected by any other GHG program. - The project has not applied or registered to claim REC benefits or any other GHG Mechanism. - The project owner heard by confirming that there would not be double counting of the credit i.e., GS benefits will only be claimed. - The project owner confirms that no legal contest has arisen with the project .There is no double counting with national climate policies or programs for the project and is not included within and counted under a regulated domestic climate mitigation target or NDC target of India
Application and Evidence of remote audit	
40	Google Inc. <u>Google Earth Pro</u> Publicly Available
41	<u>GPS Map Camera</u> Publicly Available
42	Date of Remote audit:
43	VKU.F24W. Audit and Sampling Plan_VKU.VAL.15.24.GS_7533 prepared by VKU Certification Pvt. Ltd. Assessment team
44	VKU.F46W. Attendance Sheet for Audit_VKU.VAL.15.24.GS_7533 VKU Certification Pvt. Ltd.
45	Screenshots taken during remote audit on 03-July-2024 and 04-July-2024 VKU Certification Pvt. Ltd.
46	Recording of remote audit on 03-July-2024 and 04-July-2024 by VKU Certification Pvt. Ltd.
47	ISO Standards: <u>ISO 14064-2:2019</u> & <u>ISO 14064-3:2019</u>
48	QMS Procedures and SOPs of VKU Certification Pvt. Ltd.

3.2 Remote Inspection

VKU Certification Pvt. Ltd.'s Assessment Team (AT) has conducted the remote audit on 03-July-2024 and 04-July-2024 using video calls over Microsoft Teams and the same has been recorded and stored /46/

for validation (RCP) of this project activity “**100 MW Solar Power plant in Maharashtra**” following “Remote audit techniques” mentioned in Clause 2. C of the GS4GG Site visit and remote audit requirements and procedures /13/ and Applicability of minimum site visit requirement by VVB /14/. The risk of remote audit assessed by AT is mentioned below:

Sl. No.	Scope of Assessment	Risks Identified	Conclusion
1.	Location of project	Low Risk	AT concludes that there is low risk in the location of this project as it was confirmed during the remote audit by interviewing PD representatives and local stakeholders along with Google Earth Pro/40/, Registered PDD /5/the same is assessed in section 4.1.4 of the final FVR; version 3.0 dated 17-October-2024
2.	Technologies and/or measures	Low Risk	AT concludes that there is low risk in technologies and/or measures applied in this project activity as this project activity is already registered under GS4GG. All the technologies and/or measures applied are confirmed during the remote audit through remote inspection, the same is assessed in section 4.1.5 of the final FVR; version 3.0 dated 15-October-2024
3.	Data and parameters fixed ex ante	Low Risk	AT concludes that there is low risk in fixed ex-ante parameters mentioned in Section B.6.2 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024 as these parameters are based on the applied latest CDM methodology/21/ and sourced from <u>CEA database/25/</u> .
4.	Data and parameters to be monitored	Low Risk	AT concludes that there is low risk in Data and parameters to be monitored mentioned in Section B.7.1 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024as these parameters are based on the applied latest CDM methodology and other elements of monitoring plan mentioned in section B.7.3 of the project activity
5.	Other elements of monitoring plan	Low Risk	AT concludes that there is low risk in other elements of the monitoring plan mentioned in section B.7.3 of the PDD/1/ project activity

6.	Assessment that project complies with GS4GG Gender Sensitive requirements	Low Risk	AT concludes that there is a low risk of compliance with GS4GG Gender Sensitive Requirements mentioned in section D.2 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024 as it complies with GS4GG Gender Equality Requirements & Guidelines.
7.	Stakeholder mitigation measures	Low Risk	AT concludes that there is low risk in Stakeholder mitigation measures as was confirmed by interviewing PD representatives and local stakeholders during the remote audit and the same is assessed in sections 4.7 and 4.8 of the final FVR; version 3.0 dated 17-October-2024

The details of activities performed during a remote audit, site location, date, and involved team members are mentioned below:

Date of Remote Audit: 03-July-2024 and 04-July-2024				
No.	Activity Performed during the remote audit	Mode of Audit	Date	Team Member
1.	- Introduction, scope, and objective of work, roles and responsibilities of the audit team, resources required, and timetable of the remote audit including time for closing meeting and any concerns from PP. Discussion over- - Project Activity (Technology, Location and Implementation) - Parameter fixed Ex-ante and Baseline emissions, Project emissions and Leakage calculation - Choice and applicability of baseline methodology(ies)	Remote audit conducted over Video Call using	Date: 03-July-2024 and 04-July-2024	Sunil Kathuria Komal Kumari

	• Project boundary and emission sources included in the project boundary • Applicability of baseline methodology(ies) • Monitoring plan (feasibility of monitoring plan described in PDD, QA/QC procedures, responsibility of implementation of monitoring plan, data recording & storage procedures) • Emergency Procedure • Operational lifetime of the project activity, Start date of the project activity, Crediting period • Ongoing Financial Need. • Grievance Redressal Mechanism (ongoing communication procedure with relevant local stakeholders) • Interview of relevant Local Stakeholders • Compilation of the findings raised by AT (CARs/CLs/FARs). • Discussion of the audit findings with the client and agreement on the issues raised and agreement on timelines.	Microsoft Teams		
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3.3 Interview

Following clause 7.16.6e of GS4GG Validation and Verification Standard; Version 1.0 dated 06-March-2023, the VKU assessment team has taken consent from all the interviewees present during remote audit (conducted on 03-July-2024 and 04-July-2024) to disclose their names and designation/affiliation in the final validation report of this project activity **“100 MW Solar Power plant in Maharashtra” (GS 7533)** and none of them have expressed any objection over this, hence there is no perceived or potential conflict of interest.

All the interviews were conducted during the remote audit for validation of this project activity as recorded in VKU.F46W. Attendance Sheet for Audit_VKU.VAL.15.24.GS_7533 /44/ is listed below:

No.	Interviewee				Date	Subject	Team Member
	Last Name (Gender)	First Name	Organization	Gender			
1.	Wagh	Sunil Bhausahab	Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd	Male	03-July-2024 and 04-July-2024	Implementation status of the project	Sunil Kathuria Komal Kumari
2.	Kumar	Jagdish		Male		Working process of the project	
3.	Sayyad	Sajid Ali		Male			
4.	Pagare	Jagdish Sanjay		Male		Baseline scenario	
5.	Singh	Tejpal		Male		Power Purchase agreement	
6.	Kumar	Vipin		Male			
7.	Borse	Amol		Male		Benefits of the project	
9.	Patidar	Lakhan		Male			
10.	Boese	Amol Rawsahab		Male		Location of implemented meters	
11.	Deore	Bhushan Yashwant		Male			
12.	Chauhan	Abhay		Male		Trainings mechanism	
13.	Patil	Sachin		Male			
14.	Yogi	Nitesh		Male		QA/QC procedure	
15.	Sadre	Rahul		Male			
16.	Pund	Satish Suresh		Male			
	Gadge	Niranjan Vitthal		Male			

	Mahajan	Rakesh		Male		Emergency Procedure	
	Bhamare	Akash		Male		Grievance mechanism	
						Roles and responsibility of Job	

N o.	Interviewee				Date	Subject	Team Member
	Last Name	First Name	Affiliation	Gender			
1.	Padmor	Ananda	Local Stakeholder	Male	03-July-2024 and 04-July-2024	Baseline scenario	Sunil Kathuria Komal Kumari
2.	Marathe	Manoj		Male			
3.	Koli	Prashant		Male			
4.	Ahire	Sharad		Male			
5.	Boi	Jitendra		Male		Grievance mechanism	
6.	Patil	Kieun		Male			
7.	Patil	Bandu Girdhar		Male		Benefits of the project	
8.	Ghuge	Bhagwat		Male			
9.	Darade	Amol		Male			
10.	Deore	Manoj		Male			

3.4 Sampling Approach

Not Applicable, this project is a renewable solar project so there was no sampling involved. 100% of data and records were checked.

3.5 Eligibility of the project under Gold Standard

As per **section 2.1.2 of Renewable Energy Activity Requirement**, in order to be eligible for gold standard certification, all Renewable Energy Projects shall meet the following Eligibility Criteria:

S. No.	Description	Justification from PD	VKU Assessment
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1	Projects shall generate and deliver energy services (e.g., mechanical work/electricity/heat) from non-fossil fuel and renewable energy sources.	The project activity is Solar Power Plant Project is conceived as a grid connected solar power plant which means generate electricity from renewable energy sources.	AT confirms that it is a solar power project conceived as a grid-connected solar power plant, generating electricity from renewable energy sources, as confirmed PPA /34/ Commissioning certificate /27/registered PDD/5/
2	Projects shall comprise of renewable energy generation units, such as solar photovoltaic, tidal/wave, wind, hydro, geothermal, waste to energy and renewable biomass, that are: • Supplying energy to a national or a regional grid; OR • Supplying energy to an identified consumer facility via national/regional grid through a contractual agreement such as wheeling. • Any Project supplying electricity to a mini-grid shall refer to Community Services Activity Requirements. • Projects generating on-site energy for captive consumption at an	The project activity is photovoltaic Solar Power plant hence, comprises following points: • The project is supplying energy to a national grid hence applicable. • The project is supplying energy to a national grid via long term contractual agreement which is PPA hence applicable. • The project is supplying energy to a national grid there is no involvement of mini grid hence, the point is not relevant to the project activity. • The project is supplying energy to a national grid via PPA and there is no captive consumption hence, the point is not relevant to the project activity.	AT confirms that it is a solar power project The project activity is photovoltaic Solar Power plant hence, comprises to the following:- • The project is supplying energy to a national grid. • The project is supplying energy to a national grid via long term contractual agreement which is PPA. • The project is supplying energy to a national grid & there is no involvement of mini grid y. The project is supplying energy to a national grid via PPA and there is no captive consumption hence, the is not relevant to the project activity as confirmed through. PPA /34/ Commissioning certificate /27/registered PDD/5/

	industrial facility shall refer to the requirements in this document.		
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The General Eligibility Criteria under 3.1.1 of GS4GG Principles & Requirements are as follows:

Eligibility Criteria	Description	Justification by PD	VKU Assessment
Types of Projects	The project type is a Solar Power Plant which generates power using solar Energy. The project activity belongs to the type of Renewable energy that generate and delivers power to the Indian grid. The project applies methodology ACM0002 Version 22.0. which is an approved methodology under the Gold Standard.	The Solar Power Plant Project is conceived as a grid connected solar power plant within the category of renewable energy supply. See section A.1. of the PDD/1/.	AT confirms that it is a solar power project which harness renewable energy and supplies electricity to the Indian grid. AT has cross checked and confirmed this through Commissioning Certificate /27/ and Power purchase agreement (PPA) between the Project Proponent and Maharashtra State Electricity Distribution Co. Ltd/34/
Location of Project:	The Project activity is located in various villages of Nashik, Jalgaon & Dhule districts in Maharashtra state of India. Further details have been provided in section A.2 of this report on the PDD/1/.	The Power purchase agreement between Project Developer and Maharashtra State Electricity Distribution Co. Ltd (MSEDCL)	AT confirms that this project activity is located in different districts of Maharashtra on the basis of the location mentioned in Commissioning Certificate /27/, PPA between Project Developer and Maharashtra State Electricity Distribution Co. Ltd /34/ and remote audit.
Project Area, Project Boundary and Scale:	Project Area and Boundary are defined in line with the applicable Methodology ACM0002 Version 22.	Please refer to section A.2 of PDD /01/ for the Geographical coordinates. The project has an install capacity of 100 MW which is more	The project area and project boundary include the project power plant and all power plants connected physically

	The project activity includes 100 MW installed capacity and is Large Solar power plants with an installed capacity above 15 MW to be qualified as a large-scale solar plant (in accordance with UNFCCC rules).	than 15 MW, therefore applies as a Large-Scale project. See section A.4. of the PDD/1/.	to the electricity system that the project power plant is connected to. This includes the solar panel installation and sub-stations. The project activity evacuates the power to the INDIAN grid. Therefore, all the power plants contributing electricity to the Indian grid have been considered in the project boundary. AT confirms that the project area and project boundary are in line with the applied Methodology ACM0002; Version 22./21/ AT confirms that it is a large-scale project activity as per the GHG Emissions Reduction & Sequestration Product Requirements /17/
Host Country Requirements:	The project activity follows the social wellbeing, Environmental wellbeing, Economic wellbeing and Technological wellbeing.	Projects is in compliance with India's legal, environmental, ecological and social regulations.	AT confirms that this project activity complies with India's legal, environmental, ecological, and social regulations as per the interview conducted during the remote audit.
Contact Details:	Project Developer: Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd. Name of the contact person: Mr. Ankush Malik Email:	GS4GG-Cover Letter	AT confirms that the contact details are correct as per the GS4GG cover letter /35/ and remote audit.

	ankush.malik@junipergreenenergy.com		
Legal Ownership and Other Rights:	The project activity is being developed by the PD.	The commissioning certificates and the Power Purchase Agreement (PPA) is in the name of the project developer.	AT confirms that the legal owners Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd. of this project activity as per GS4GG Cover Letter /35/, Commissioning Certificate /27/ The Power purchase agreement between Project Proponent and Maharashtra State Electricity Distribution Co. Ltd /34/. Hence, Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd. are the legal owners of this project activity.
Official Development Assistance (ODA) Declaration:	The project had private funding and funding from bank. The PD hereby confirms that there is no public funding from Annex 1 countries and no diversion of Official Development Assistance (ODA) involved in the project activity. The project is funded by bank.	The Project Developer declares that the project has not directly or indirectly received or benefited from official development assistance. An Official Development Assistance (ODA) declaration (i.e., GS Annex D).	AT confirms that this project activity has not received funding from Annex 1 countries as per the interview conducted during remote audit and ODA declaration /30/ given by PD.

The eligibility criteria as per section 4 Eligible Principles & Requirements of GS4GG are described as follows:

Eligibility Criteria	Justification by PD	VKU Assessment
1. Demonstrate if the project is pre-identified as eligible by being referenced in Gold Standard Activity Requirements, Impact Quantification	The Project activity is already registered in GS4GG, and it meets all eligibility criteria as mentioned below.	AT confirms that this project activity is already registered in GS4GG and it complies with all GS4GG requirements and guidelines. /08/ /09/ /10/ /11/ /12/ /13/ /14/ /15/ /16/ /17//18//19//.

Methodologies or Product Requirements		
2. If not pre-identified as eligible, provide evidence of Gold Standard approval	No applicable	AT confirms that this project activity is eligible under GS4GG as it meets all of the GS4GG criteria and the project is already registered in GS.
3. Demonstrate how the project meets the General Eligibility criteria of the applicable Activity Requirements	General Eligibility criteria have been justified in the above table.	AT confirms that this project activity meets the General Eligibility criteria of the applicable Renewable Energy Activity Requirements version 1.4 , It can be referred from the table below.
4. Confirm that the project is not registered with any other voluntary or compliance schemes.	The project activity is not registered with any other voluntary or compliance schemes. declaration for no double counting has been provided by the PD.	AT confirms that this project activity is not registered under any other voluntary or compliance schemes. The details of the registries checked are as follows: 1) http://cdm.unfccc.int/ 2) https://www.recregistryindia.nic.in/ 3) https://verra.org/verra-standards-and-programs/ 5) https://www.irecstandard.org/ 6) https://cri.nccf.in/ 7) International Carbon Registry 8) GCC Projects Portal PD has also submitted a declaration that states that this project activity has neither applied nor registered to claim REC benefits under any other GHG Mechanism nor it is rejected by any other GHG program. /39/
5. Demonstrate the activity is NOT located in a host country, region, locality or state that has an emission	The Project is not registered in any other mechanism. Also, self-declaration for no double counting has been provided by the PD	AT confirms that this project activity is implemented in the state of Maharashtra in India which is a non-annex I Country and hence, no emission reduction cap is enforced as well as no emission trading system is implemented in the host country. The location of this project activity is confirmed based on the

reduction cap enforced OR has the possibility to trade emissions that include the scope of the proposed project		location mentioned in Commissioning Certificate /27/, The Power purchase agreement between the Project Proponent and Maharashtra State Electricity Distribution Co. Ltd /34 and the remote audit.
6. Demonstrate that no potential for double counting of impacts if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature.	The project activity has obtained all the authorities' approvals to comply with legal, environmental, ecological and social regulations before begin the implementation.	AT has cross-checked the following registries: 1) http://cdm.unfccc.int/ 2) https://www.recregistryindia.nic.in/ 3) https://verra.org/verra-standards-and-programs/ 5) https://evident.app/IREC/device-register/table/ 6) https://cri.nccf.in/ 7) International Carbon Registry 8) GCC Projects Portal This project activity is not registered in any of the above registries, hence, the potential for double counting of impacts is zero. PD has also submitted a declaration /39/ which states that this project activity has neither applied nor registered to claim REC benefits under any other GHG Mechanism nor it is rejected by any other GHG program and confirms that there would not be any double counting of the SDG Impacts. The validation team concluded that the electricity generated from the given project activity is not claimed by the DISCOM as an RPO commitment as per the PPA/34/, this is also cross-verified by interviewing the project representative during the remote audit. AT independently cross-verified the publicly available weblink https://evident.app/IREC/device-register/table and found that this project activity is not registered under I-REC. Furthermore, AT also independently cross verify the https://climateactiontracker.org/countries/india/ And https://pib.gov.in/PressReleaseIframePage.aspx?PRI

		<u>D=1847812#:~:text=As%20per%20the%20updated%20NDC,based%20energy%20resources%20by%202030</u> and found that the given project activity is also not considered under the India NDC target. However, if there should any guidelines be published in the future, the Project Developer (PD) will ensure that GS project activities are not used for double accounting.
7. Demonstrate that the project is in compliance with applicable Host Country's legal, environmental, ecological and social regulation.	The project activity has obtained all the authorities' approvals to comply with legal, environmental, ecological and social regulations before begin the implementation.	AT confirms that this project activity complies with India's legal, environmental, ecological, and social regulations as per the interview conducted during the remote audit.

The general eligibility criteria under Renewable Energy Activity Requirements version 1.4 are mentioned below:

Eligibility Criteria	Justification by PD	VKU Assessment
Project Type	As discussed above, the project type is eligible.	AT confirms that it is a solar power project which harness renewable energy and supply electricity to the Indian grid as per the Commissioning Certificate /27/ and Power Purchase Agreement (PPA) between Project Developer and Maharashtra State Electricity Distribution Co. Ltd /34/.
Project Location:	The project is located in a district in state of Maharashtra Country India.	AT confirms that this project activity is located in in state of Maharashtra Country India. based on the location mentioned in the Commissioning Certificate /27/, and the Power Purchase Agreement (PPA) between the Project Developer and Maharashtra State

		Electricity Distribution Co. Ltd /34/ and remote audit.
Project Scale	The project activity includes 100MW installed capacity and is Large Solar power plants with an installed capacity above 15 MW to be qualified as a large-scale solar plant (by UNFCCC rules).	As per GS4GG GHG Emissions Reduction & Sequestration Product Requirements /17/ - “All Projects exceeding the small-scale thresholds are defined as large-scale. Small-scale projects are defined following CDM project standards for project activities, as below; a) Type 1: Renewable energy Projects: maximum output capacity of 15 MW(e) or 45 MW (th).” As per renewable energy activity requirement /16/ any renewable energy Project with a maximum output capacity of 15 MW (or an appropriate equivalent) is defined as small scale project. Since this project activity has the capacity of 100 MW that is more than 15 MW hence, it comes under large scale project activity.

4 VALIDATION FINDINGS

Sustainable Development Goals Targeted	SDG Impact	Estimated Annual Average	Unit or Products
SDG 7: Affordable and Clean Energy	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	231,495.63 MWh per annum.	MWh of renewable energy generated
SDG 8: Decent Work and Economic Growth	8.5: By 2030, achieve full and productive employment and decent work for all women	1. Training: 1 no's annually project leads to	1. No. of trainings provided to the employees/year

	and men, including for young people and persons with disabilities, and equal pay for work of equal value.	workplace Health & Safety training along with other Trainings & workshops. 2. Employment of 38 staff.	2. Employment generated due to project activity.
SDG 13: Climate Action	13.2: Integrate climate change measures into national policies, strategies and planning.	216,494 tCO ₂ per annum	Emission reductions in tCO ₂ e

This report contains the findings in the term of CL, CAR and FAR where:

Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs) raised by the VVB	
1.	A corrective action request Corrective Action Request (CAR) is raised in validation findings if one of the following occurs: • Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient; • Mistakes have been made in applying assumptions, data or calculations of emissions reductions that will impair the estimate of emission reductions; • Issues identified in a FAR during validation to be verified during verification have not been resolved by the project developer.
2.	The VVB shall raise a Clarification Request (CL) if the information is insufficient or not clear enough to determine whether the applicable GS4GG requirements and procedures have been met.
3.	The VVB shall raise Forward Action Request (FAR) is also raised in cases where any required deviation/information is not fulfilled in current validation and thus needs to be taken up in consequent verification for better transparency thus holding the applicability of the methodology eligible to the project activity and there is no impact of the same on additionality, baseline scenario & emission reduction calculation of the project.

A total of **08** findings were raised, which include: **05 Corrective Action Requests (CARs)**; **02 Clarification Requests (CLs)**, and **01 Forward Action Request (FAR)**. All the findings except FAR have been successfully resolved by PD. The same are discussed in detail in Appendix 3 of this validation report

4.1 Purpose and General description of Project

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 10-May-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); /1/, ER Sheet; Version 01, dated: 10-May-2024, Version 02 dated: 23-July-2024 Final Version 03, dated 21-August-2024/2/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020/5/ and remote audit.
Findings	CAR #02 was raised and closed successfully. For more details, please refer to Appendix 3
Conclusion	Assessment Team confirms that purpose and general description of the project mentioned in Section A.1 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024 /1/ is correct and it complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/ previously registered Project Design Document (PDD); Version 05, dated 04-August-2020/05/ and fulfils the requirements of Gold Standard for Global Goals.

4.1.1 Identification of project type

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 10-May-2024, Version 02, dated 23-July-2024 , Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); /1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020/5/ and remote audit.
Findings	No findings have been raised for the identification of project type.
Conclusion	Assessment Team confirms that it is a renewable energy project as mentioned in Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ and it is correct as per previously registered Project Design Document (PDD); Version 05, dated 04-August-2020/5/, Commissioning Certificate issued by Maharashtra Energy Development Agency/27/, Power Purchase Agreement (PPA) between Juniper Green Energy Pvt.

	Ltd. and Nisagra Renewable Energy Pvt. Ltd. and Maharashtra State Electricity Distribution Co. Ltd /34/. And Technical Details of the Solar panel /36/.
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4.1.2 Eligibility of the project under Gold Standard

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024 /1/, ER Sheet Version 01, dated: 13-June-2024, version 02 dated 23-July-2024, Final Version 03, dated 21-August-2024 /2/, supporting documents (Section 3.1) and remote audit/42/
Findings	CAR #02 was raised and closed successfully. For more details, please refer to Appendix 3
Conclusion	AT confirms that this project is eligible under Gold Standard as mentioned in Section A.1.1: Eligibility of the project under Gold Standard, of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ and it complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/, GS4GG Principles and Requirements; Version 1.2, dated: 23-October-2019 /8/, GS4GG Renewable energy activity requirements; Version 1.4, dated: 16-August-2021 /16/ and Gold standard eligible impact quantification methodologies Version 05, dated 30-December-2019 /18/.

4.1.3 Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024 /1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	No findings have been raised for legal ownership of the product.
Conclusion	Assessment Team confirms that legal ownership of products generated by the project and legal rights to alter use of resources

	required to service the project mentioned in Section A.1.2 of Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is correct Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd are the legal owner of products generated by the project. This has been cross checked and confirmed through previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ Commissioning certificate/27/ PPA /34/ and GS4GG cover letter /35/. It complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.
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4.1.4 Location of Project

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024,Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/and remote audit.
Findings	No findings have been raised for the Location of Project of the product.
Conclusion	AT confirms that location of project mentioned in Section A.2 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/is correct as per the Commissioning Certificate issued by Maharashtra Energy Development Agency /27/, Power Purchase Agreement (PPA) between Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd. and Maharashtra State Electricity Distribution Co. Ltd /34/ previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/. It complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.

4.1.5 Technologies and /or measures

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024,Version 03, dated 21-August-2024 and Final
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	Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit/42/
Findings	No findings have been raised for the Technologies and /or measures
Conclusion	AT confirms that the technology and/or measures mentioned in Section A.3 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is correct as per Commissioning Certificate of Maharashtra Energy Development Agency/27/ and Technical Specification of Solar panel /36/ previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/. It complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.

4.1.6 Scale of Project

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/and remote audit.
Findings	No findings have been raised for scale of the project.
Conclusion	AT confirms that the project has an installed capacity of 100 MW which is more than 15 MW, therefore applies as a Large-scale project and also mentioned in Section A.4 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/and it is correct as per Commissioning Certificate issued by Maharashtra Energy Development Agency /27/, Power Purchase Agreement (PPA) between Juniper Green Energy Pvt. Ltd. and Nisagra Renewable Energy Pvt. Ltd and Maharashtra State Electricity Distribution Co. Ltd /34/ and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/. It complies with the guidelines mentioned in the template guide of Key Project Information &

	Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/ and GS4GG GHG Emissions Reduction & Sequestration Product Requirements; Version 2.2, dated: 28-August-2023 /17/.
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4.1.7 Funding sources of project

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	No findings have been raised for funding sources of the project.
Conclusion	AT confirms that no public funding from Annex 1 countries and no diversion of Official Development Assistance (ODA) /30/ is involved in this project activity as mentioned in Section A.5 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/. It is correct as per the declaration given by the project developer previously registered Project Design Document (PDD); Version 05, dated 04-August-2020/5/. It also complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.

4.2 Application and selection of methodologies and standardized baselines

4.2.1 Reference of approved methodology(ies)

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, ER Sheet; Version 01, dated: 13-June-2024, Version 02 dated 23-July-2024, Final Version 03, dated 21-August-2024/2/, supporting documents (Section 3.1) and remote audit/42/
Findings	No findings have been raised for reference of approved methodology.
Conclusion	AT confirms that methodology /21/ and tools /22/ /23/ /24/ mentioned in Section B.1 of Key Project Information & Project

	Design Document (PDD); Version 04, dated 04-October-2024/ is the latest one and these are as follows: Methodology: 1. ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0/21/ 2. Tool 1: Tool for the demonstration and assessment of additionality; Version 07.0.0 (EB 70, Annex 08) /22/ 3. Tool 7: Tool to calculate the emission factor for an electricity system; Version 07.0.0 (EB 100, Annex 4) /23/ 4. Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period; Version 3.0.1 (EB 66, Annex 47) /24/ It is correct as per the GS4GG Validation and verification standard Version 1.0, dated: 06-March-2023 /12/, Gold standard eligible impact quantification methodologies; Version 2.4, dated: 22-June-2023 /18/, GHG Emissions Reduction & Sequestration Product Requirements, Version 2.2, dated: 28-August-2023 /17/ and also cross verify with CDM website, CEA database. It complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.
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4.2.2 Applicability of methodology (ies) and standardized baselines

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, ER Sheet; Version 01, dated: 13-June-2024, Version 02 dated 23-July-2024, Final Version 03, dated 21-August-2024 /2/ supporting documents (Section 3.1) previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	CAR 03 was raised and closed successfully. For more details, please refer to Appendix 3.
Conclusion	AT confirms that the applicability criterion of methodology /21/ and tools /22/ /23/ /24/ as mentioned in Section B.1 of the Key

	Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ The project is voluntary and the project is not claiming any carbon benefits in any other mechanism like REC and not a part of compliance with NDC target. There are no new relevant national and/or sectoral policies and/or circumstances in the electricity sector applicable to the Project Activity, in comparison to the time of the submission of the project activity for validation, which could impact the validity of the current baseline for the next crediting period. Therefore, the current baseline scenario does not need to be updated for this crediting period.is correct and this project activity fulfils all the requirements of GS4GG Validation and verification standard; Version 1.0, dated: 06-March-2023 /12/ Gold standard eligible impact quantification methodologies; Version 2.4, dated: 22-June-2023 /18/, GHG Emissions Reduction & Sequestration Product Requirements; Version 2.2, dated: 28/08/2023 /17/. It also complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.
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4.2.3 Deviation from methodology and/or methodology tool

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024,Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, ER Sheet; Version 01, dated: 13-June-2024 ,Version 02 dated Final Version 03, dated 21-August-2024/2/, supporting documents (<u>Section 3.1</u>) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	No findings have been raised for Deviation from methodology and/or methodology tool.
Conclusion	AT confirms that the methodology and tools mentioned in Section B.1 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is the latest one and these are as follows: Methodology: ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0/21/

	1. Tool 1: Tool for the demonstration and assessment of additionality; Version 07.0.0 (EB 70, Annex 08) /22/ 2. Tool 7: Tool to calculate the emission factor for an electricity system; Version 07.0.0 (EB 100, Annex 4) /23/ 3. Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period; Version 3.0.1 (EB 66, Annex 47) /24/ It is correct as per the GS4GG Validation and verification standard Version 1.0, dated: 06-March-2023 /12/, Gold standard eligible impact quantification methodologies; Version 2.4, dated: 22-June-2023 /18/, GHG Emissions Reduction & Sequestration Product Requirements, Version 2.2, dated: 28-August-2023 /17/. It also complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/. No deviation has been found either in methodology /21/ or tools /22/ /23/ /24/ used in the Final Key Project Information & Project Design Document (PDD); Version 01, dated 08-August-2024.
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4.2.4 Project Boundary, sources and GHGs

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	No findings have been raised for Project Boundary
Conclusion	Assessment Team confirms that the project boundary and sources of GHGs mentioned in Section B.3 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is correct as per the applied methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0/21/, GS4GG Validation and verification standard; Version 1.0, dated: 06-March-2023 /12/ and also complies with the guidelines mentioned in the template guide of Key Project

	Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.
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4.2.5 Establishment and description of baseline scenario

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, ER Sheet; Version 01, dated: 13-June-2024, Version 02 dated 23-July-2024, Final Version 03, dated 21-August-2024/2/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.										
Findings	CAR #03 was raised and closed successfully. For more details, please refer to Appendix 3.										
Conclusion	Assessment Team confirms that the baseline scenario established in Section B.4 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is correct as per Tool 11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period; Version 3.0.1 /24/, para 24 of the applied methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0 /21/ and GS4GG Validation and verification standard; Version 1.0, dated: 06-March-2023 /12/. The baseline emission factor is calculated as per the latest CDM – CO₂ Baseline Database; Version 19.0 /25/ released by Central Electricity Authority, Ministry of Power, GoI, available at the time of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ submission for renewal. The OM, BM & CM of the INDIAN grid used for the project activity is as follows: <table border="1"> <thead> <tr> <th>Parameter</th><th>Value</th><th>Nomenclature</th><th>Source</th></tr> </thead> <tbody> <tr> <td>EF_{grid,OM,y}</td><td>0.9580 tCO₂/MWh</td><td>Operating margin CO₂ emission factor for the project electricity system in year y</td><td>Calculated as the last 3-year (2020-21, 2021-22 and 2022-23) generation-weighted average, sourced from</td></tr> </tbody> </table>			Parameter	Value	Nomenclature	Source	EF _{grid,OM,y}	0.9580 tCO ₂ /MWh	Operating margin CO ₂ emission factor for the project electricity system in year y	Calculated as the last 3-year (2020-21, 2021-22 and 2022-23) generation-weighted average, sourced from
Parameter	Value	Nomenclature	Source								
EF _{grid,OM,y}	0.9580 tCO ₂ /MWh	Operating margin CO ₂ emission factor for the project electricity system in year y	Calculated as the last 3-year (2020-21, 2021-22 and 2022-23) generation-weighted average, sourced from								

				Baseline CO ₂ Emission Database; Version 19.0 /25/, December 2023 published by Central Electricity Authority (CEA), Government of India
	EF _{grid,BM,y}	0.8670 tCO ₂ /MWh	Build margin CO ₂ emission factor for the project electricity system in year y	Baseline CO ₂ Emission Database; Version 19.0 /25/, December 2023 published by Central Electricity Authority (CEA), Government of India
	EF _{grid,CM,y}	0.9352 tCO ₂ /MWh	Combined margin CO ₂ emission factor for the project electricity system in year y	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Baseline CO ₂ Emission Database; Version 19.0 /25/, December 2023 published by Central Electricity Authority (CEA), Government of India
It also complies with the guidelines mentioned in the template guide of Key Project Information & Project Design Document				

	(PDD); Version 1.5, dated 29-June-2023 /19/. AT has confirmed that the baseline submitted at the time of design certification continues to remain the same with the acceptance of changing baseline emission factor which has been updated with the CEA data base and methodological tool 11 version 3. .0.1 Step 1.1. AT has cross check this with the existing Indian electricity act 2003. In addition, this project also compliance AT has also independently checked and could confirm that the project is in line with “India’s Renewable Electricity Roadmap 2030” ⁸ .
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4.2.6 Demonstration of additionality

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024 Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020/5/ ER Sheet; Version 01, dated: 13-June-2024, version 02, dated 23-July-2024, Final Version 03, dated 21-August-2024/2/ and Plant Generation data and OFN (Ongoing Financial Need) sheet, /04/.and remote audit/42/
Findings	CAR #03 was raised and closed successfully. For more details, please refer to Appendix 3.
Conclusion	It is a retroactive project and already registered under the gold standard. Assessment Team (AT) confirms that this project is additional as per Tool 1: Tool for the demonstration and assessment of additionality; Version 07.0.0 (EB 70, Annex 08) /22/. It also complies with GS4GG Validation and verification standard Version 1.0, dated: 06-March-2023 /12/ and the guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/Section B.5 of GS-PD details the Investment analysis carried out at the time of Design Certification Ongoing Financial Need AT found that PD has incorporated information regarding ongoing financial need and demonstrated the role of carbon revenue in the

⁸ [Report-onIndiaRenewableElectricityRoadmap2030.pdf \(niti.gov.in\)](#)

continued operation of the project. Section B.5.2 of the Project Design Document (PDD); Version 04, dated 04-October-2024/1/ has been updated & a financial analysis calculation sheet for OFN has been submitted. A summary of the ongoing financial need is as follows:

Revenue Sources:

Income from Project Activity	Amount in percentage
Revenue from the Sale of Electricity	95.73%
Revenue from Gold Standard Verified Emission Reductions (GSVERs)	4.27%
Total	100 %

Expenses Breakdown:

Expense of Project activity	Amount in percentage
Certification costs (Gold Standard).	0.78%
Employee benefits	9.63%
Depreciation and amortization (related to asset value reduction)	30.90%
financial costs (like loan interest).	45.30%
other expenses	13.39%

The project still incurred a 7.57% loss during a period of 31-December-2019 to 31-March-2024. The income from electricity sales and carbon credits together does not cover the total expenses. This clearly shows that the project relies on carbon credits to help offset the costs and remain financially viable. Without the income from carbon credits, the project would face a significant shortfall

Cross Checking

AT has cross-checked the calculation sheet of Ongoing Financial Needs submitted by PD with supporting evidences Consisting of Company's Balance sheet/29/ & previous registered MRs/7/. On reviewing these documents.

	AT could conclude that the project has demonstrated ongoing finances needs for sustainable operations of its activities.
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4.2.7 Prior Consideration

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Key Project Information & Project Design Document (PDD); Version 02, dated 23-July-2024 and Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD) Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit/42/
Findings	No findings have been raised for prior consideration.
Conclusion	The project is undergoing a renewal of crediting period. Hence prior consideration is not required.

4.3 Estimation of emission reductions (SDG 13) or net anthropogenic removals and other Sustainable Development Goals

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024 , Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, ER Sheet; Version 01, dated: 13-June-2024, Version 02 dated 23-July-2024, Final Version 03, dated 21-August-2024/2/ supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit/42/		
Findings	No findings have been raised for the estimation of emission reductions (SDG 13) or net anthropogenic removals and other Sustainable Development Goals.		
Conclusion	PD has considered 3 SDGs under this project activity. The Sustainable Development Goals targeted, their most relevant SDG targets and SDG impacts are mentioned below:		
	Sustainable Development Goals Targeted	Most Relevant SDG Target	SDG Impact
	SDG 13: Climate Action	Integrate climate change measures into national	Emissions Reductions in tCO ₂

		policies, strategies and planning		
	SDG 8: Decent Work and Economic Growth	8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	1.Training 2. Employees	
	SDG 7: Affordable and Clean Energy	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	MWh of renewable energy generated.	
	Summary of ex ante estimates of each SDG Impacts are as follows:			
	SDG 7: Affordable and Clean Energy			
</				

	31-December-2024 to 30-December-2025	0 Trainings, 0 Jobs	1 Training, 38 Jobs	1 Training, 38 Jobs
	31-December-2025 to 30-December-2026	0 Trainings, 0 Jobs	1 Training, 38 Jobs	1 Training, 38 Jobs
	31-December-2026 to 30-December-2027	0 Trainings, 0 Jobs	1 Training, 38 Jobs	1 Training, 38 Jobs
	31-December-2027 to 30-December-2028	0 Trainings, 0 Jobs	1 Training, 38 Jobs	1 Training, 38 Jobs
	31-December-2028 to 30-December-2029	0 Trainings, 0 Jobs	1 Training, 38 Jobs	1 Training, 38 Jobs
SDG 13: Climate Action				
	YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
	31-December-2024 to 30-December-2025	219,546 tCO ₂ e	0 tCO ₂ e	219,546 tCO ₂ e
	31-December-2025 to 30-December-2026	218,010 tCO ₂ e	0 tCO ₂ e	218,010 tCO ₂ e

	31-December-2026 to 30-December-2027	216,484 tCO ₂ e	0 tCO ₂ e	216,484 tCO ₂ e
	31-December-2027 to 30-December-2028	214,968 tCO ₂ e	0 tCO ₂ e	214,968 tCO ₂ e
	31-December-2028 to 30-December-2029	213,463 tCO ₂ e	0 tCO ₂ e	213,463 tCO ₂ e
AT confirms that the estimation of emission reductions (SDG 13) or net anthropogenic removals and other Sustainable Development Goals (SDG 7 and SDG 8) mentioned in Section B.6 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is correct as per the applied methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0/21/ and it complies with the GS4GG Validation and verification standard Version 1.0, dated: 06-March-2023 /12/ and guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/. AT concluded that parameters and values mentioned under SDGs 7, 8, and 13 of the updated SDG Impact Tool submitted by PD are consistent and correct with the Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024 which are validated above.				

4.4 Monitoring Plan

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, ER Sheet; Version 01, dated: 13-June-2024 ,Version 02 dated 23-July-2024 Final Version 03, dated 21-August-2024/2/ supporting documents (Section 3.1)
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	and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.														
Findings	CAR#03 was raised and closed successfully. For more details, please refer to Appendix 3.														
Conclusion	As part of the monitoring plan, these are the following data/parameters which will be monitored under 3 SDGs (SDG 7, SDG 8 & SDG 13): SDG 7.2.1: Affordable and Clean Energy <table border="1"> <tr> <td>Data / Parameter</td><td>$EG_{PJ,grid,y}$⁹</td></tr> <tr> <td>Unit</td><td>MWh/Year</td></tr> <tr> <td>Description</td><td>Quantity of net electricity supplied to the grid during the year y.</td></tr> <tr> <td>Source of data</td><td>Generation statement provided by MSEDCL every month</td></tr> <tr> <td>Value(s) applied</td><td>231,495.63</td></tr> <tr> <td>Measurement methods and procedures</td><td> The Net electricity supplied to the grid by the project activity is 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: $EG_{PJ,grid,y} = EG_{Export} - EG_{Import}$ The export and import of electricity reading are sourced from the monthly generation statement/JMR. The electricity is evacuated to the GSS and has a dedicated set of main and check meter. The details of the calibration of the meters are mentioned in Appendix 5 of the PDD 23-July-2024/1/ </td></tr> <tr> <td>Monitoring frequency</td><td>Measurement: Continuous Recording: Monthly Monitoring Method: Recording in JMR (Join Meter Reading)</td></tr> </table>	Data / Parameter	$EG_{PJ,grid,y}$ ⁹	Unit	MWh/Year	Description	Quantity of net electricity supplied to the grid during the year y.	Source of data	Generation statement provided by MSEDCL every month	Value(s) applied	231,495.63	Measurement methods and procedures	The Net electricity supplied to the grid by the project activity is 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: $EG_{PJ,grid,y} = EG_{Export} - EG_{Import}$ The export and import of electricity reading are sourced from the monthly generation statement/JMR. The electricity is evacuated to the GSS and has a dedicated set of main and check meter. The details of the calibration of the meters are mentioned in Appendix 5 of the PDD 23-July-2024/1/	Monitoring frequency	Measurement: Continuous Recording: Monthly Monitoring Method: Recording in JMR (Join Meter Reading)
Data / Parameter	$EG_{PJ,grid,y}$ ⁹														
Unit	MWh/Year														
Description	Quantity of net electricity supplied to the grid during the year y.														
Source of data	Generation statement provided by MSEDCL every month														
Value(s) applied	231,495.63														
Measurement methods and procedures	The Net electricity supplied to the grid by the project activity is 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: $EG_{PJ,grid,y} = EG_{Export} - EG_{Import}$ The export and import of electricity reading are sourced from the monthly generation statement/JMR. The electricity is evacuated to the GSS and has a dedicated set of main and check meter. The details of the calibration of the meters are mentioned in Appendix 5 of the PDD 23-July-2024/1/														
Monitoring frequency	Measurement: Continuous Recording: Monthly Monitoring Method: Recording in JMR (Join Meter Reading)														

⁹ If the project activity is the installation of a Greenfield power plant, then: $EG_{PJ,y} = EG_{facility,y}$ and the monitoring of this parameter is as per para 83 of methodology ACM00002 version 22.0 that is “requirement for the $EG_{PJ,grid,y}$ should apply to parameters $EG_{facility,y}$ ” Which refers to tool 05.

		The JMR includes, monthly recording of electricity export & import. Energy meters of accuracy class 0.2s are used at site. Net electricity supplied to the grid by the project activity is cross-checked with invoices submitted MSEDCL (Maharashtra State Electricity Distribution Company Limited).
	QA/QC procedures	Calibration of all the meters will be undertaken at required intervals and faulty meters will be duly replaced immediately. The meters will be of accuracy class 0.2s
SDG 8.5.1: Decent Work and Economic Growth		
	Data / Parameter	- Quantitative employment - Quality of employment
	Unit	- Number (Trainings) - Number (employees)
	Description	- Number of Training provided to employees & O&M staff - Number of project employees
	Source of data	- Training Records (HSE & HR) - Employee Records.
	Value(s) applied	A minimum of 38 employees will be maintained during the crediting period. All the 38 employees are local working in the site. The trainings & workshops are given to the O&M staff are: - HSE Training Record - Soft Skill Training It is expected that a minimum of 1 training (either of the above) is carried out annually. Further, Workplace Health & Safety trainings are also conducted annually. The training

		programs help in making the workforce efficient and skilled at their job. This not only helps the company but adds to the growth of individual employees. Thus, the project has a positive impact on the parameter.
	Measurement methods and procedures	Together with the technology supplier, the project organize training for the staff on the technology and the monitoring of the plant operation, and the emergency and safety procedures.
	Monitoring frequency	Annually
	QA/QC procedures	The number of persons employed is mentioned in the plant register, which can be crossed checked with daily attendance register.
SDG 13.2.1: Climate Action		
	Data / Parameter	Emissions Reduction
	Unit	tCO ₂ /year
	Description	Reduction in CO ₂ emission reduction due to implementation of project activity.
	Source of data	Calculated as per “Tool to calculate the emission factor for an electricity system,”. The data are obtained from “CO ₂ Baseline Database for Indian Power Sector” version 19.0, published by the Central Electricity Authority, Ministry of Power, Government of India
	Value(s) applied	216,494 tCO ₂ e emission reductions estimated per annum
	Measurement methods and procedures	Calculated from CEA database and Energy Generation.
	Monitoring frequency	The energy meters are calibrated once in every 5 years by an independent testing laboratory. The calibration of the meters will be done once in 5 years as per CEA guidelines. The accuracy

		class of meters, feeder arrangements, metering and determination of net electricity supplied to grid and calibration interval are under purview of state electricity board and PP do not have any control on it.
	QA/QC procedures	A check meter is also installed near to the main meter to cross-check the electricity exported to the grid. The check meter reading is also used in case of failure of the main meter.
Assessment Team confirms that the monitoring plan mentioned in Section B.7 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is correct as there is no change from the previous monitoring plan in registered PDD /5/ mentioned in previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and it also complies with the GS4GG Validation and verification standard Version 1.0, dated: 06-March-2023 /12/ and guidelines mentioned in the template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.		

4.5 Project Start date, crediting period type and duration

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	No findings have been raised for project Start date, crediting period type and duration.
Conclusion	Assessment Team confirms that start date of this project activity is 10-July-2019 and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/. The 2 nd crediting period for this project activity as mentioned in section C.2 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024 is from 31-December-2024 to 30-December-2029 (Inclusive of both dates). It

	is renewable and length of this crediting period is 5 years. It is correct as per the GS4GG Validation and verification standard Version 1.0, dated: 06-March-2023 /12/.
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4.6 Environmental Impacts

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated 13-June-2024 , Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	No findings were raised.
Conclusion	AT confirms that this project activity does not harm the environment as mentioned in Appendix-1: Safeguarding Principles Assessment of Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/. It is correct as per the Environment and Social Impact Assessment.

4.7 Local Stakeholder Consultation

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 24-May-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.
Findings	CAR#05 was raised and closed successfully. For more details, please refer to Appendix 3
Conclusion	As per clause 5.1.47 of GS4GG Principles & Requirements; Version 1.2, the scope of Design certification renewal is limited to: a) Changes in the Project as related to the General Eligibility Criteria. b) Incorporation of any relevant updates to the Gold Standard Requirements. c) Re-definition of Baseline Scenario and any impact of change on the Eligibility Principles, Criteria and Requirements.

	d) Any Gold Standard activity, product and methodology-specific Requirements. e) Demonstration of Ongoing Financial Need, where relevant This project activity is already registered in GS4GG and PD had conducted the Stakeholder consultation physical meeting retroactively and for the renewal of the crediting period under GS4GG, it is not required to conduct new or separate LSC/SFR reports. The data from the originally registered PDD is considered sufficient, as there are no specific guidelines demanding additional stakeholder consultations solely for the renewal purpose. Also, the Project Developer (PD) has established a Continuous Input / Grievance mechanism for continuous input or to record ongoing communication with local stakeholders a grievance register /37/ is available at the project site office of 100 MW Solar Power plant in Maharashtra state of India to allow stakeholders to register grievances or provide comments. This mechanism ensures that stakeholders can continuously offer input throughout the project's lifecycle. It is correct as per the actual site scenario and complies with GS4GG Principles and Requirements; Version 1.2, dated: 23-October-2019 /8/, Validation and verification standard; Version 1.0, dated: 06-March-2023 /12/, guidelines of template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /5/.
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4.8 Global Stakeholder Consultation

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/, supporting documents (Section 3.1) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/and remote audit/42/.
Findings	CAR#05 was raised and closed successfully. For more details, please refer to Appendix 3
Conclusion	PD had conducted the Stakeholder consultation physical meeting in line with the GS4GG requirements and guidelines. The local stakeholder consultation meeting was applicable as the project is

	retroactive registration project. Table 2.8 of the GS toolkit was used to identify the stakeholders. The identified stakeholders were the ones local people impacted by the project and then were local NGOs, International NGOs, GS representatives local govt etc. Also, PD had conducted a physical Stakeholder consultation meeting from 31-January-2019 and 01-February-2019 at two separate locations in a way to cover all individual project locations. All the stakeholders were invited through public notice which was displayed in the nearby areas. AT confirms that the stakeholder consultation mentioned in section E of Final Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ is correct as per the previously registered Project Design Document (PDD); Version 05, dated 04-August-2020/5/ and fulfils the GS4GG principles and requirements /8/ and also complies with the guidelines of template guide of Key Project Information & Project Design Document (PDD); Version 1.5, dated 29-June-2023 /19/.
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4.9 Safeguarding Principle and Gender Sensitive Assessment

Means of Validation	Desk Review of Key Project Information & Project Design Document (PDD); Version 01, dated: 13-June-2024, Version 02, dated 23-July-2024, Version 03, dated 21-August-2024 and Final Key Project Information & Project Design Document (PDD), Version 04, dated 04-October-2024/1/, supporting documents (<u>Section 3.1</u>) and previously registered Project Design Document (PDD); Version 05, dated 04-August-2020 /5/ and remote audit.		
Findings	CAR#05 was raised and closed successfully. For more details, please refer to Appendix 3		
Conclusion	PD has assessed Safeguarding principles in Appendix-1 of Key Project Information & Project Design Document (PDD); Version 04, dated 04-October-2024/1/ and the summary of safeguarding principles that be monitored is summaries as follows:		
	S. No.	Principles	Mitigation measures added to the monitoring plan
	1.	Principle 6.1 Labor Rights	The project as fulfilling the requirement of Safeguarding Principles & Requirements version 2.1. The Project

			Developer ensures the training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures. There is no forced labour and all employees are working as per national labour and occupational health and safety laws ¹⁰ .
	2.	Principle 9.5 Hazardous and Non-hazardous Waste	The project as fulfilling the requirement of Safeguarding Principles & Requirements version 2.1. The waste is disposed to the waste handlers and the firm complies with all the local laws for monitoring and disposal. Also, the project developer is trying to minimize the generation of hazardous and non-hazardous waste materials.

5 INTERNAL QUALITY CONTROL

The final validation report has undergone a technical review and quality review before being submitted to the project participant(s)/coordinating managing entity and GS4GG registry. Technical reviewer is qualified in accordance with VKU Certification Private Limited., the qualification scheme for GS4GG validation and verification performed the technical review.

6 VALIDATION OPINION

VKU Certification Pvt. Ltd. is contracted by Juniper Green Energy Pvt. Ltd.(Project Developer) and Infinite Environmental Solutions Limited (Project Representative) for validation (RCP) of the project activity **“100 MW Solar Power plant in Maharashtra” (GS 7533)** for 2nd crediting period from 31-December-2024 to 30-December -2029 (Inclusive of both dates).

¹⁰ https://ncib.in/pdf/ncib_pdf/Labour%20Act.pdf

The validation was performed following requirements and guidelines defined by Gold Standard for the Global Goals and UNFCCC criteria, Clean Development Mechanism (CDM), latest version of Validation and Verification Standard and related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change, as stated in the final Key Project Information and Project Design document (PDD)/5. In the opinion of the validation team, the project meets all relevant GS4GG, UNFCCC, CDM criteria and all relevant host country.

The review of the final Key Project Information and Project Design document (PDD)/5/ and the subsequent follow-up interviews have provided validation team with sufficient evidence to determine the validity of the original baseline. The key project information & project design document (PDD)/1/ and ER Sheet/2/ correctly applies the valid version of the methodology ACM0002: Grid-connected electricity generation from renewable sources - Version 22.0 /21/ and meets all relevant criteria therein. The monitoring arrangements described in the monitoring plan are feasible within the project, and it is the validation team's opinion that the project developer is able to implement the monitoring plan and it is deemed likely that the forecasted emission reductions of 216,494 tCO₂e per year from the project during the second crediting period will be achieved, given that the underlying assumptions do not change.

During the course of validation total of 08 findings have been raised, which include: 05 CARs, and 02 CLs and were identified in the Key Project Information and Project Design document (PDD) /1/, ER Sheet/2/, remote-inspection/42/and 01 FAR has been raised for the next verification. All the CAR and CL have been successfully resolved by the project developer.

In summary, it is the validation team's opinion that the project activity **“100 MW Solar Power plant in Maharashtra” (GS 7533)** meets all relevant GS4GG and UNFCCC requirements for the renewal of the crediting period. Hence, VKU Certification Pvt. Ltd. recommends the renewal of the second crediting period from 31-December-2024 to 30-December-2029 (Inclusive of both dates)

7 MATERIALITY AND LEVEL ASSUMPTION APPLIED

7.1 Materiality

As per the ISO 14063-3:2019 /23/, VKU validation team has applied materiality thresholds for the purpose to reach at the conclusion on the GHG statement about the estimated SDG Impacts due to the project activity **“100 MW Solar Power plant in Maharashtra” (GS 7533)**. Hence, to assess the baseline

scenario and estimation, the validation team has applied qualitative materiality over the assumptions and information presented in the final Key Project Information and Project Design document (PDD)/1/.

7.2 Level of Assumption

All the revisions in the validation report before being submitted to the project representative were subject to an independent internal technical review to confirm that all validation activities had been completed according to the pertinent VKU's internal procedure and with a **“Reasonable Level of Assumption”** as per the ISO Standard 14064-2 and ISO 14064-3 /47/.

APPENDIX 1: Abbreviations

Abbreviations	Full texts
AT	Assessment Team
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon Dioxide
CO_{2e}	Carbon Dioxide equivalent
CME	Co-ordinating/ Managing Entity
EB	Executive Body
EF	Emission Factor
FAR	Forward Action Request
FVR	Final Validation Report
GS	Gold Standard
GS4GG	Gold Standard for Global Goals
GHG	Greenhouse Gas
PD	Project Developer
QC/QA	Quality Control/Quality Assurance
SDG	Sustainable Development Goal
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VER	Verified Emission Reductions
VVB	Validation and Verification Body
VVS	Validation and Verification Standard
N/A	Not Applicable
RCP	Renewal of crediting Period
PDD	Project Design Document
COD	Date of commissioning
ER	Emission Reduction
CEA	Central Electricity Authority
PPA	Power Purchase Agreement
ODA	Official Development Assistance
MOU	Memorandum of Understanding
MSEDCL	Maharashtra State Electricity Distribution Company Limited

APPENDIX 2: COMPETENCY STATEMENT

Team Leader-



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Sunil Kathuria
Nationality	Indian
Countries of Experience	Malaysia, Uganda, Kenya, South Africa, Nigeria Bangladesh, China, Vietnam, Thailand, Philippines, United Kingdom, Germany, USA
Education Qualification	B.E. (Electrical Power)
Year of Experience	40 Years
Area of Expertise	Climate Change & Environment Energy Generation / Distribution GHG Footprints Manufacturing Sector
Eligible Sectoral Scope	TA 1.1 – Thermal energy generation TA 1.2 – Renewables TA 2.1 - Energy distribution TA 3.1 - Energy Demand TA 4.1 – Cement and lime production (Manufacturing Industries) TA 13.1 Solid Waste & Wastewater

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (1.1, 1.2, 2.1, 3.1, 4.1, 13.1)	YES
Financial Expert	NO

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

Validator/Verifier – Trainee-



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Komal Kumari
Nationality	Indian
Countries of Experience	India
Education Qualification	M.Sc. (Environmental Science) B.Sc. (Zoology)
Year of Experience	1 Year
Area of Expertise	Climate Change & Environment / Industry
Eligible Sectoral Scope	NA

Roles

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

Reviewed by	Apoorva Gupta (Quality Manager)	Date	26.02.2024
Approved by	Barun Kumar (Technical Manager)	Date	26.02.2024

Independent Technical Reviewer-



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Vivek Kumar Ahirwar
Nationality	Indian
Countries of Experience	India, Madagascar, Thailand, Nepal, South Africa, Vietnam, Mozambique, Kenya, Ethiopia, Spain, Singapore, Zimbabwe, Columbia, Zambia, Libya, Indonesia, Myanmar
Education Qualification	B.E.(Mechanical) M.Tech.(Energy Management)
Year of Experience	15 Years +
Area of Expertise	Climate Change & Environment & Industry
Eligible Sectoral Scope	TA 1.1 Thermal Energy & Biomass TA 1.2 Renewables/Non-renewables TA 2.1 Energy Distribution TA 3.1 Energy Demand TA 13.1 Solid waste and Wastewater

Roles

Project Trainee	NO
Validator/Verifier Trainee	NO
Validator	YES
Verifier	YES
Team Leader	YES
Technical Reviewer	YES
Local Expert (Country Wise)	YES
TA Expert (TA 1.1, 1.2, 2.1, 3.1, 13.1)	YES
Financial Expert	YES

Reviewed by	Apoorva Gupta (Quality Manager)	Date	11/10/2023
Approved by	Barun Kumar (Technical Manager)	Date	11/10/2023

APPENDIX 3: RESOLUTION OF FINDINGS

Finding No. 01	Date: 05-July-2024
Finding Type- CAR ☐ CL ☒ FAR ☐	
Stage of funding raised:	
Desk Review	☒
Remote assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
1. Stakeholder Consultation and Engagement Requirements.	
Non-Conformity	
1. Document: All documents as per the List of Documents need to be provided. 2. Table 1: As per the previous registered PDD dated 04-August-2020 SDG 8 claims for 1 training and 67 jobs/annually but in Design Certification Renewal SDG 8 claims for 1 training and 15 jobs/annually please describe transparently for such drop in SDG target. Also, substantiate your claim with requisite evidence.	
Evidence	
1. Key Project Information & Project Design Document (PDD) Version 01, Dated 13-june-2024 /Table 1 /.	
1st Response from PD	Date: 23/07/2024
1. All the supporting documents are submitted with the response. 2. The value in PDD of CP1 is 67 which was over estimated so the estimation is revised as per actual scenario of the project and the same can be verified from all verification documents.	
Documents provided by PD for review	
1. PDD version 2.0	
1st Review by Assessment Team	Date:08-August-2024
1. Document: All documents as per the List of Documents need are submitted and same has been reviewed by the assessment team and found to be sufficient.	

- 2. Table 1:** PD has clarified that the value in PDD of CP1 is 67 which was over estimated so the estimation is revised as per actual scenario of the project and the same has been verified with the Employment record and revised in Updated PDD.
Hence CL#01 is closed

Finding No. 02	Date: 05-July-2024
Finding Type- CAR ☒ CL ☐ FAR ☐	
Stage of finding raised: Desk Review ☒ Remote assessment ☐ Technical Review ☐ Project Review Report by Registry ☐	
Requirement 1. Template guide- Project Design Document Version1.4 for table 1 Section /A.1/A.1.1/ 2. Renewable Energy activity requirements v1.4	
Non-Conformity 1. PD Document: The font colour and formatting of the report should be within the guidelines stated in the template guide. 2. Section A.1: It does not include information in chronological order about the key activities/details of the project milestone achieved including Validation and post-validation activities. 3. Section A.1.1 does not include a. How the Project activity meets the eligibility criteria for GS renewable energy requirements. b. Inconsistencies observed with the references of Eligibility criteria need to be corrected. 4. As part of the Project Documentation the Project Developer shall provide (i) name and (ii) contact details of Gold Standard all Project Participants; AND in case of an organization (iii) the legal registration details and (iv) documentation by the governing jurisdiction.	
Evidence 1. Key Project Information & Project Design Document (PDD) Version 01, Dated 13-june-2024 Table 1, /Section A.1/Section A1.1/.	
1st Response from PD	Date: 23/07/2024

1. The font colour and formatting has been updated as per the guidelines. 2. The key activities/details of the project milestone achieved has been incorporated in a chronological order in the given section in a tabular format. 3. a) As mentioned in the section A.1.1 paragraph the project was submitted to GS4GG for preliminary review before 24/01/2020 as per paragraph 2.1.5. So, it meets the eligibility criteria and in case if projects submitted for preliminary review after 24/01/2020 than only it shall demonstrate compliance with the requirements as per paragraph 2.1.3 of “Renewable Energy Activity Requirement” and PD has demonstrated the requirement of paragraph 2.1.2 in Updated PDD. b) The statement and the footnote weblink have been corrected. Also, it covers all the eligibility criteria points mentioned in the given section of project design document template filling version 1.3 4. As per general eligibility criteria of Principles-Requirements Version 1.2 GS4GG-Cover Letter is submitted with the response which has all the mentioned information.	
Documents provided by PD for review	
1. PDD version 2.0 2. GS4GG-Cover	
1st Review by Assessment Team	Date: 08-August-2024
1. PD Document: The updated PDD has been reviewed and confirms that the font colour and formatting of the report are made inline within the guidelines stated in the template guide. 2. Section A.1: The updated PDD has been reviewed and confirms that information in chronological order about the key activities/details of the project milestone achieved including Validation and post-validation activities has been now incorporated. 3. Section A.1.1 a. The updated PDD has been reviewed and confirms that PD has demonstrated the requirement of paragraph 2.1.2 in Updated PDD b. The updated PDD has been reviewed and confirms that the statement and the footnote weblink have been corrected. Also, it covers all the eligibility criteria points mentioned in the given section of project design document template filling version 1.3 4. As per general eligibility criteria of Principles-Requirements Version 1.2GS4GG-Cover Letter is submitted same has been reviewed and found to be correct. Hence CAR#02 is closed	

Finding No. 03	Date: 05-July-2024
Finding Type- CAR ☒ CL ☐ FAR ☐	
Stage of finding raised:	
Desk Review	☒
Remote assessment	☐

Technical Review	☐
Project Review Report by Registry	☐
Requirement	
1. Template guide- Project Design Document Version 1.4 Section/B.4/ B.5.2/B.7.1/B.7.3/ 2. Methodology ACM0002: Grid-connected electricity generation from renewable sources Version 21.0 3. GS Principles & Requirement Version 1.2 section 4.1.52 and 4.1.53	
Non-Conformity	
1. Section B.4.: Step 1.1: PD has not demonstrated how the original baseline continues to remain valid in view of the present policies of the country and the project's compliance with the same. and how the project complies to the same eg. NDC target and REC etc. 2. Section B.5.2.: Ongoing financial Needs have not been demonstrated as per the requirement of GS Principles & Requirement Version 1.2 sections 4.1.52 and 4.1.53. 3. Section B.7.1 does not include the following: a. The SLD of the monitoring system along with the location of energy meters and sub-station/grid connection points is missing. b. Information regarding Non-hazardous Waste generation and its management Process/mechanism has not been included. 4. Section B.7.3: Information on the roles and responsibilities of each stakeholder involved in the data collection, data archiving, Calibration, monitoring, measurement, emission reduction calculation, reporting, and reviewing of the data is not included.	
Evidence	
1. Key Project Information & Project Design Document (PDD) Version 01, Dated 13-june-2024 Section /B.4/B.5.2/B.7.1 /B.7.3.	
1st Response from PD	Date: 23/07/2024
1. There are no new relevant national and/or sectoral policies and/or circumstances in the electricity sector applicable to the Project Activity, in comparison to the time of the submission of the project activity for validation, which could impact the validity of the current baseline for the next crediting period. Therefore, the current baseline scenario does not need to be updated for this crediting period. Thus, the baseline scenario remains unchanged and also is in compliance with all the relevant mandatory national and/or sectoral policies. Also, the project is voluntary and is not claiming any carbon benefits in any other mechanism like REC and not a part of compliance with NDC target. 2. OFN sheet is submitted with the response along with all the supporting documents. 3. A) The SLD of the monitoring system along with the location of energy meters has been demonstrated in section B.3 and also in section B.7.3 of the revised PDD version 2.0. B) The safeguarding principle assumed as 4.3.5 in the registered PDD was based on the previous versions available at that time and as it is renewal of crediting period so in this RCP it has been revised and corrected as 9.5 and it will be maintained during the crediting period. 4. The roles and responsibilities for emission reduction calculation, reporting and reviewing of the data of each stakeholder has been included in section C of revised MR.	

Documents provided by PD for review	
1. PDD version 2.0 2. OFN sheet and all the supporting documents.	
1st Review by Assessment Team	Date: 08-August-2024
1. Section B.4.: Step 1.1: PD has now incorporated the information regarding the original baseline continues to remain valid in view of the present policies of the country and the project's compliance with the same. and the project complies to the same eg. NDC target and REC etc. same has been revied in the updated PDD and found correct. 2. Section B.5.2.: The updated PDD has been reviewed and confirms that Ongoing financial Needs has been demonstrated as per the requirement of GS Principles & Requirement Version 1.2 sections 4.1.52 and 4.1.53. 3. Section B.7.1 does not include the following: c. The updated PDD has been reviewed and confirms that the SLD of the monitoring system along with the location of energy meters and sub-station/grid connection points is incorporated. d. The updated PDD has been reviewed and confirms that the information regarding Non-hazardous Waste generation and its management Process/mechanism has been included. 4. Section B.7.3: The updated PDD has been reviewed and confirms that Information on the roles and responsibilities of each stakeholder involved in the data collection, data archiving, Calibration, monitoring, measurement, emission reduction calculation, reporting, and reviewing of the data has included Hence CAR#03 is closed	

Finding No. 04	Date: 05-July-2024
Finding Type- CAR ☒ CL ☐ FAR ☐	
Stage of finding raised:	
Desk Review	☒
Remote assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
1. Template guide- Project Design Document Version1.4 Section E 2. Stakeholder Consultation and Engagement Requirements.	
Non-Conformity	

1. Section E.1: a. PD shall discuss if and why there is or is not a need to conduct a complementary stakeholder consultation for the renewal of the crediting period. PD can choose to invite relevant stakeholders for comments electronically or via a physical meeting but will be required to justify the same. b. PD is requested to clarify how the stakeholder feedback Round conducted through physical meetings on 31-January-2019 & 01-February-2019 meets stakeholder consultation engagement Requirements. 2. In Section E.2: a. Mitigation mechanisms for complaints and grievances received from local and Global stakeholders are not stated in this section as per the guidelines provided in the Template. 3. APPENDIX 5: The serial no of the meters are not found to be consistent with serial no. mentioned in JMR	
Evidence	
1. Key Project Information & Project Design Document (PDD) Version 01, Dated 13-june-2024 section E.1/E.2/Appendix 5/.	
1st Response from PD	Date: 23/07/2024
1. As per Stakeholder Consultation and Engagement Requirements version 2.1. It is clearly stated that “The stakeholder consultation report shall be submitted to Gold Standard at the time of first submission (preliminary review)” as per para 3.9.2. Also, it is stated that “The project developer may organize the Stakeholder Feedback Round in parallel to the validation process.” as per para 3.6.13. Therefore, no separate LSC/SFR reports are not required in renewable of crediting period as per GS4GG rules and requirements and the data mentioned has been taken from the registered PDD but PP is maintaining Continuous Input / Grievance mechanism where the Stakeholder may register the Grievance/comments and the information of Continuous Input / Grievance is incorporated in the section E.2 of the RCPPDD. 2. The mechanism for complaints and Grievance Mitigation Mechanism is incorporated. Further there were no grievances received by the local stakeholders during the current renewal of crediting period. 3. Meter details are updated as per actual case and now it is in line with JMRs.	
Documents provided by PP/PD for review	
1. PDD Version 2.0 2. Sample JMRs 3. Calibration certificates of all energy meters.	
1st Review by Assessment Team	Date: 08-August-2024
1. Section E.1: As per Requirement: According to paragraph 3.9.2, of Stakeholder Consultation and Engagement Requirements version 2.1. “the stakeholder consultation report must be submitted to the Gold Standard during the first submission (Preliminary review), which occurs during the preliminary review phase of the project. This ensures that stakeholder feedback is considered early in the project development process. Stakeholder Feedback Round (SFR): Paragraph 3.6.13 of Stakeholder Consultation and Engagement Requirements version 2.1.	

“The project developer may organize the Stakeholder Feedback Round in parallel to the validation process, however before concluding the validation opinion, the VVB shall take into account the feedback and how the comments were addressed and any potential revision in the project design and documentation” which allows project developers to organize the Stakeholder Feedback Round (SFR) concurrently with the validation process. This flexibility is intended to streamline the process, enabling projects to progress without unnecessary delays while still ensuring stakeholder engagement.

For Renewal of Crediting Period:

There are no explicit guidelines in GS4GG that mandate the preparation and submission of separate Local Stakeholder Consultation (LSC) or Stakeholder Feedback Round (SFR) reports specifically for the renewal of the crediting period. Instead, the initially registered Project Design Document (PDD) data can be used for the renewal process. This implies that the initial stakeholder consultation data remains valid and applicable throughout the project's lifecycle, including during the crediting period renewal.

In essence, for the renewal of the crediting period under GS4GG, it is not required to conduct new or separate LSC/SFR reports. The data from the originally registered PDD is considered sufficient, as there are no specific guidelines demanding additional stakeholder consultations solely for the renewal purpose. This approach helps in maintaining consistency and reducing redundancy in stakeholder engagement efforts.

Also, the Project Developer (PD) has established a Continuous Input / Grievance mechanism to allow stakeholders to register grievances or provide comments. This mechanism ensures that stakeholders can continuously offer input throughout the project's lifecycle. The details of this mechanism are incorporated into section E.2 of the Revised Project Design Document (RCPDD)

2. In Section E.2:

- a. Assessment team has review the updated PDD and found that the Mitigation mechanisms for complaints and grievances received from local and Global stakeholders are now incorporated in this section as per the guidelines provided in the Template.

3. APPENDIX 5: Assessment team has review the updated PDD and found that the serial no of the meters are made consistent with serial no. mentioned in JMR.

Hence CAR#04 is closed

Finding No. 05	Date: 05-July-2024
Finding Type- CAR ☒ CL ☐ FAR ☐	
Stage of finding raised:	

Desk Review	☒
Remote assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
1. CEA Database version 19	
Non-Conformity	
1. ER Sheet: The values of Emission data for years 2019-20 and 2020-2021 are inconsistent with CEA Database version 19.	
Evidence	
1. ER sheet Values of Emission data for years 2019-20 and 2020-2021.	
1st Response from PD	Date: 23/07/2024
1. The values of Emission data for years 2019-20 and 2020-2021 are updated as per CEA Database version 19.	
Documents provided by PD for review	
1. PDD version 2.0. 2. ER sheet version 2.0	
1st Review by Assessment Team	Date: 08-August-2024
1. The assessment team has cross-verified ER sheet version 02 with CEA database version 19 and found that the values of Emission data for years 2019-20 and 2020-2021 are now made consistent with CEA Database version 19. Hence CAR#05 is closed	

Finding No. 06	Date: 05-July-2024
Finding Type- CAR ☐ CL ☐ FAR ☒	
Stage of finding raised:	

Desk Review	☒
Remote assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
1. Site Visit and Remote Audit Requirements v.02 §3.2.2	
Non-Conformity	
1. As per Site Visit and Remote Audit Requirements v.02 §3.2.2 “A physical site visit by VVB is mandatory at the first verification of a project” within 2 years after design renewal certification.	
Evidence	
1. NA	
1st Response from PP/PD	Date: 23/07/2024
1. The last physical site visit was conducted on 24/07/2023 to 27/07/2023 and in future PD will take care of physical site visit of 1 st verification within 2 years after design renewal certification.	
Documents provided by PD for review	
NA	
1st Review by Assessment Team	Date: 08-August-2024
1. PD has confirmed that they will follow the guideline mentioned in FAR. FAR # 1 is Open	

Finding No. 07	Date: 20-August-2024
Finding Type- CAR ☐ CL ☒ FAR ☐	

Stage of funding raised:	
Desk Review	☒
Remote assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
1. ACM0002: Grid-connected electricity generation from renewable sources.	
Non-Conformity	
1. In section B.2 of PDD: The validity of ACM0002, Version 21.0 is from 02-Nov-22 to 30 May 24. Latest version 22.0 is now available on CDM website which is valid from 31st May 2024 onwards. It is not clear why PD has not used the latest available methodology. 2. In section B.7.1 of PDD: a) Please clarify which plant record will be used or being used for this data/parameter since there are several records are maintained at plant site. b) Hazardous Waste: Please clarify how the value 50 is taken for this data/parameter	
Evidence	
Key Project Information & Project Design Document (PDD) Version 02, Dated 23-july-2024 section B.2//Section B.7.1//.	
1st Response from PD	Date: 21/08/2024
1. Now the version of methodology is updated and latest version 22.0 of ACM0002 is used. 2. In section B.7.1 of PDD: a) PD is mentioning a separate record of waste so here plant records mean Plant records of waste. b) The value is estimated based on the experience of previous crediting period and applicable for next 5 years of the crediting period.	

Documents provided by PD for review	
PDD Version 3.0.	
1st Review by Assessment Team	Date: 22-August-2024
1. In section B.2 of PDD: The latest version of the methodology ACM0002 version 22 is now followed by PD, also they have demonstrated all the applicability criteria assessment team has review them and found to be correct. 2. In section B.7.1 of PDD: a. Pd has clarified that they have separate record of waste so plant records mean Plant records of waste. b. Estimation is based on experience of previous crediting period and the value is applicable for next 5 years of the crediting period.	

Finding No. 08	Date: 20-August-2024
Finding Type- CAR ☒ CL ☐ FAR ☐	
Stage of funding raised:	
Desk Review	☒
Remote assessment	☐
Technical Review	☐
Project Review Report by Registry	☐
Requirement	
1. Template guide- Project Design Document Version1.4 Section B.7.1//Section B.7.3//.	
Non-Conformity	
1. In section A.1 of PDD: Ratings mentioned PV modules of 325/230 Wp are inconsistent with the ratings of SPV modules mentioned in section A.3 of this report	

2. In section A.3 of PDD: 325/330/375 Wp Total: 44,313 it is also a type of SPV module installed in this project activity. It is not mentioned in the above table and project boundary on page 6 of the PDD. 3. In section B.7.1of PDD: Value of $EG_{facility,y}$ is not correct. 4. In section B.7.3 of PDD: The position of the standby meter is not clear and it is not shown in the SLD and in section B.3 project boundary of this report.	
Evidence	
Key Project Information & Project Design Document (PDD) Version 02, Dated 23-july-2024 section A.1//Section A.3//Section B.7.1 // Section B.7.3//.	
1st Response from PD	Date: 21/08/2024
1. The module rating is updated as per actual scenario and section A.3 of the PDD. 2. The module rating in section A.1.is updated as per actual scenario and section A.3 of the PDD. 3. Value of $EG_{facility,y}$ is updated as per ER sheet. 4. There is only two meters i.e., main meter and check meter. Here standby meter is a typographical mistake hence the para is updated.	
Documents provided by PD for review	
PDD Version 3.0.	
1st Review by Assessment Team	Date: 22-August-2024
1. In section A.1 of PDD: Ratings mentioned has been revised by the PD has same has been checked in the revised PDD and found correct. 2. In section A.3 of PDD: Ratings mentioned has been revised by the PD has same has been checked in the revised PDD and found correct. 3. In section B.7.1of PDD: Value of $EG_{facility,y}$ is now corrected same has been checked and found correct. 4. In section B.7.3 of PDD: PD has clarified that there is no standby meter.	

APPENDIX 4: TECHNICAL SPECIFICATION OF MODULE

A. Solar PV Modules

Modules Make	Trina Solar
Module Model	Poly C-Si
Technology Used	Multi Crystalline
Ratings	330 Wp, 325 Wp 375 Wp
Capacity, MW (AC)	100
Capacity, MW (DC)	145 MWp

The total number of modules installed along with the date of commissioning are as per the table mentioned below:

S. No	Plant Site	Date of commissioning	Number of Modules installed of each type
Juniper Green Energy Pvt. Ltd.			
1.	Dahiwad, Deola	21/03/2020	325/330/375 Wp Total: 44,313
2.	Yeola, Rajapur	23/01/2020	325/330 Wp Total 44,100
3.	Vahelgaon, Nandgaon	22/01/2020	325/330 Wp Total 44,064
Nisagra Renewable Energy Pvt Ltd.			
4.	Indave, Sindh Kheda	31/12/2019	325/330 Wp Total: 44,232
5.	Chhail, Sakri	07/01/2020	325/330 Wp Total: 44,232
6.	Mukti	29/03/2020	325/330 Wp Total: 44,400
7.	Parola, Vichkheda	07/03/2020	325/330 Wp Total: 43,584
8.	Bahirane, Baglan	16/01/2020	325/330 Wp Total: 44,232
9.	Dahidi, Malegaon	08/01/2020	325/330 Wp Total: 44,232
10.	Varul, Shirpur	30/12/2019	325/330 Wp Total: 44,064

B. Invertor

S. No.	Make	Details
1.	Manufacturer	Huawei
2.	Model	SUN2000 – 185KTL - INHO

3.	DC Max Input current	9*26 A
4.	AC Max Output current	134.9 A
5.	Rated capacity	160 KW
6.	No. of inverters	63

C. Transformer

S. No.	Make	Details
1.	Manufacturer	Sudhir
2.	Type	ONAN Step-Up
3.	Capacity	5 MVA Each
4.	No. of Transformers	2

*Applicable to all 10 sites

D. Metering equipment details

S. No.	Make	Solar Plant End
1.	Manufacturer	Secure Make
2.	Type	ABT Meters
3.	Accuracy Level	0.2s

APPENDIX 5: LOCATION OF PROJECT WITH GEO-COORDINATE

Project Investors' Name	Capacity in MW _{AC}	Village	District	Latitude	Longitude
Nisagra Renewable Energy Pvt. Ltd.	10 MW	Indave, Sindh Kheda	Dhule	21° 14'09.6"N	74° 26' 24.0"E
	10 MW	Varul, Shirpur	Dhule	21° 24' 46.8"N	74° 45'28.8"E
	10 MW	Chhail, Sakri	Dhule	20° 55' 26.4"N	74° 16'40.8"E
	10 MW	Mukti	Dhule	20° 52' 41.7"N	74° 57'40.896"E

	10 MW	Bahirane, Baglan (Satana)	Nashik	20° 47' 31.2"N	74° 21' 10.8"E
Juniper Green Energy Pvt. Ltd.	10 MW	Rajapur, Yeola	Nashik	20° 10' 48.0"N	74° 37'12.0"E
	10 MW	Vahelgaon, Nandgaon	Nashik	20° 25' 55.2" N	74° 45' 50.0"E
Nisagra Renewable Energy Pvt. Ltd.	10 MW	Vichkheda, Parola	Jalgaon	20° 52'31.548"N	75° 4' 6.96"E
	10 MW	Dahidi, Malegaon	Nashik	20° 43' 12.0"N	74°35'24.0"E
Juniper Green Energy Pvt. Ltd.	10 MW	Dahiwad, Deola	Nashik	20° 25'54.912"N	74° 15'25.668"E

APPENDIX 6: METER AND CALIBRATION DETAILS

The total capacity of the project activity is 100 MW. Each project site has one main meter, and one check meter.

Project Proponent	Location		Main Meter	Check Meter	Calibration Date	Calibration Due date
Nisagra Renewable Energy Pvt. Ltd.	Indave	(5 MW - BAY1)	02872718	02872719	15-March-2021	14 March-2026
		(5 MW - BAY2)	-	02872737	15 March-2021	14-March-2026
			Q0804130	-	22-June-2023	21-June-2028
	Varul	(5 MW - BAY1)	02872720	02872721	12 March-2021	11 March-2026
		(5 MW - BAY2)	02872722	02872723	12-March-2021	11-March-2026
	Sakri	(5 MW - BAY1)	02872726	02872725	03-March-2021	02-March-2026

		(5 MW - BAY2)	02872724	02872727	03-March-2021	02-March-2026
	Mukti	(5 MW - BAY1)	02872728	02872729	15-March-2021	14-March-2026
		(5 MW - BAY2)	02874871	02874872	15-March-2021	14-March-2026
	Bahirane	(5 MW - BAY1)	02872741	02874840	05-February-2021	04-February-2026
		(5 MW - BAY2)	02874845	02872643	27-December-2019	26-December-2024
	Dahidi	(5 MW - BAY1)	02874788	02868876	03-February-2021	02-February-2026
		(5 MW - BAY2)	02872626	02872742	03-February-2021	02-February-2026
	Parola	(5 MW - BAY1)	Q0832263	Q0431116	23-March-2023	22-March-2028
		(5 MW - BAY2)	02892222	02892221	15-January-2020	14-January-2025
	Juniper Green Energy Pvt. Ltd.	Vahelgaon	(5 MW - BAY1)	Q0832266	Q0832267	02-December-2023
(5 MW - BAY2)			-	Q0431119	06-February-2023	05-February-2028
			Q0804127	-	22-June-2023	21-June-2028
Rajapur		(5 MW - BAY1)	Q0431120	02892213	18-July-2022	17-July-2027
		(5 MW - BAY2)	Q0592097	-	24-April-2023	23-April-2028
			-	Q0804128	22-June-2023	21-June-2028
Dahiward		(5 MW - BAY1)	Q0430220	Q0431118	11-October-2022	10-October-2027

		(5 MW - BAY2)	02892234	02892233	11-October- 2022	10-October- 2027
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HISTORY OF THE DOCUMENT

Version	Date	Amendment Summary*	Prepared By	Approved By
3.1	21.05.2024	Signature section added for Approver and Authorized signatory	Apoorva Gupta	Dr. Vikas Kumar Aharwal
3.0	01.12.2023	Changes done in all the sections as per the requirements of GS	Apoorva Gupta	Dr. Vikas Kumar Aharwal
2.1	22.07.2021	NA	Ayushi Garg	Dr. Vikas Kumar Aharwal
2.0	29.03.2021	NA	Ayushi Garg	Dr. Vikas Kumar Aharwal
1.0	23.09.2020	NA	Ayushi Garg	Dr. Vikas Kumar Aharwal

*Amendment Summary adopted in VKU System on 12.10.2022