

## GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG) REPORT

# VERIFICATION



Project Title:	300 MW Solar PV Plant at Bhadla, Rajasthan
Monitoring Period:	10/12/2019 to 31/07/2021 (Both days included)
GS project ID:	GS 7726
Internal ID:	A+SH_SYST_TQC_GS_VAL_VER_4920
Customer:	Clean Solar Power (Bhadla) Pvt. Ltd.
Date:	08/08/2022
Revision:	03



SUMMARY						
Re	eference	No.	Da V	te (first ersion)	Version No.	Date (last version)
A+SH_SYST_T	QC_GS_V	AL_VER_4920	23/0	5/2022	03	08/08/2022
		G	S4GG \	erification		
GS4GG Certified Product (sought): GS VER						
GS4GG SDG I	mpact St	atement (sough	<i>t)</i> : II	npact Certific	ation	
		G	eneral I	nformation		
Client		Clean Solar Powe	er (Bhad	la) Pvt. Ltd.		
Project Title		300 MW Solar P	/ Plant a	t Bhadla, Raj	asthan	
Project Partic	cipants	Clean Solar Powe	er (Bhad	la) Pvt. Ltd.		
Project Locati	ion	Bhadal Village, J	odhpur l	District, Uttar	Pradesh state, India	а
Contact Perso	on	Mr. Vijayanand V	/			
Monitoring Pe	eriod:	10/12/2019 to 3	1/07/20	21 (Both days	included)	
GS4GG Version: GS4GG Principles and Requirements 1.2 GS4GG Activity Requirements: RE Activity Requirements, version 1.4 Applied Methodology Version: ACM0002 "Grid connected electricity generation from renewab sources" Version 20.0 Current Methodology Version: ACM0002 "Grid connected electricity generation from renewab			and tivity "Grid- newable "Grid- newable	GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 1 Technical Area: 1.2		
Monitoring Repo Date: 30/08/20	ort Versio 121	n: 01		Final Monito Date: 04/08	oring Report Version 3/2022	n: 04
Certified Project Design Document Version: Assessment team checked the registered GS4GG PDD version 05 dated 15/01/2022 <sup>/03/</sup>						
Estimated va	Estimated values for the Monitoring period for all SDG:					
SDG S	SDG	Values				
7 R	Renewable	e Electricity Generated		1,219,471 MWh for the Monitoring period (600 days		ing period (600 days)
8 т	Frainings p	provided to O&M staff 01 Trainings/annum provided to O&M Sta		ed to O&M Staff		

SDG	SDG	Values
7	Renewable Electricity Generated	1,219,471 MWh for the Monitoring period (600 days)
8	Trainings provided to O&M staff	01 Trainings/annum provided to O&M Staff
8	Number of Jobs generated	36 employments/annum
13	Emission Reduction	1,139,716 tCO $_2$ for the monitoring period (600 days)

Actual values for the Monitoring period for all SDG:



SUMMARY					
SDG SDG		Actual values for this monitoring period			
7	Renewable Electricity Generated	1,154,195 MWh electricity generation			
8	Trainings provided to O&M staff	33 Trainings provided to O&M Staff			
8	Number of Jobs generated	33 <sup>1</sup> employments created			
13	Emission Reduction	1,078,700 tCO <sub>2</sub> e			

Selected Sustainable Development Goals (SDGs): 7; 8; 13

#### Verification Summary

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by Clean Solar Power (Bhadla) Pvt. Ltd. to perform the 1<sup>st</sup> periodical verification of "300 MW Solar PV Plant at Bhadla, Rajasthan" (Ref. No. GS7726) applying the methodology ACM0002 Version 20.0.

The management of Clean Solar Power (Bhadla) Pvt. Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

A desk review and an interview have been conducted to verify the data submitted in the monitoring report. Applus+ Certification confirms the following have been reviewed:

- a. The registered GS4GG PDD including the monitoring plan; <sup>/03/</sup>
- b. Monitoring report(s); <sup>/01/</sup>
- c. The applied monitoring methodology; <sup>/04/</sup>
- d. Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board;
- e. GS4GG guidelines and related Annexes of GS guidelines;<sup>/06/</sup>
- f. All information and references relevant to the project activity's resulting in emission reductions.

Clean Solar Power (Bhadla) Pvt. Ltd. is the promoter of the project activity and involves installation of installation of 300 MW solar power project in Rajasthan state, India. Electricity generated from the project activity is sent to Indian grid of India. As per GS4GG registered PDD<sup>/03/</sup>, the project will replace anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 693,327 tCO<sub>2</sub>e per annum, thereon displacing 741,845 MWh/year amount of electricity from the generation-mix of power plants connected to the Indian electricity grid, which is mainly dominated by thermal/ fossil fuel-based power plant. The project activity is commissioned phase wise on following dates<sup>/11/</sup>: -

S. No	Project ID	Project location	Capcity(MW)	Commissioning Date
1	R1 Plot	Villago Dhadal Tahail	100 MW	15/02/2020
2	R2 Plot	Village –Bhadal, Tensil- Phalodi, Dist -Jodhnur	100 MW	28/02/2020
3	R3 Plot		100 MW	10/12/2019

The monitoring of emission reduction and sustainable development indicators has been carried out in accordance to respective registered  $PDD^{/03/}$ .

<sup>&</sup>lt;sup>1</sup> During monitoring period, Due to COVID-19 situation throughout the host country, PP faced lack of skilled and semi-skilled employees. Thus, PP has generated less employments than estimated amount. Reason for the less employment is totally not in control of PP thus accepted by assessment team.



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#### **SUMMARY**

Applus+ Certification confirms that the project is implemented in accordance with the validated and registered GS4GG PDD. The monitoring plan complies with the applied methodology ACM0002 Version  $20.0^{/04/}$  and the GS4GG guideline<sup>/06/</sup> the monitoring has been carried out in accordance with the monitoring plan. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information reviewed and evaluated Applus+ Certification confirms that the implementation of the project has resulted in 1,078,700 tCO<sub>2</sub>e emission reductions during period 10/12/2019 to 31/07/2021 (Both days included)

ASSESSMENT TEAM					
Team Members	Type of Resource <sup>2</sup>	Organization (for OEs)			
Lead Auditor: Dr. Atul Takarkhede	🗌 IR 🗌 EI 🖾 OE	M/s True Quality Certifications Private Limited			
Technical Expert: Dr. Atul Takarkhede	🗌 IR 🗌 EI 🖾 OE	M/s True Quality Certifications Private Limited			
Technical Reviewer: Mr. Denny Xue	🗌 IR 🛛 EI 🗌 OE	Applus+ Certification			

**Note**: In line with the GS Rule Update RU 2020 PR – PR V1.2 dated on 02/04/2020, the VVB hereby discloses that the VVB has performed Validation of this project with different team members than in this verification. During Validation of project activity Mr. Sukanta Das, Mr. Pankaj Kumar and Mr. Denny Xue (Technical Reviewer) was the member of assessment team.

<sup>&</sup>lt;sup>2</sup> IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)



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ABBREVIATIONS				
АСМ	Approved Consolidated Methodology			
АМ	Approved Methodology			
AMS	Approved Small Scale Methodology			
Applus+ LGAI / Applus+	LGAI Technological Center, S.A. (Applus+ Certification)			
ВМ	Build Margin			
CAR	Corrective Action Request			
СDМ	Clean Development Mechanism			
CDM EB	CDM Executive Board			
CDM VVS version 03	CDM validation and verification standard for project activities, Version 03.0			
CL / CR	Clarification Request			
СМ	Combined Margin			
СМР	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol			
DNA	Designated National Authority			
DOE	Designated Operational Entity			
EF	Emission Factor			
EIA	Environmental Impact Assessment			
ER	Emission Reduction			
FAR	Forward Action Request			
GHG	Greenhouse Gas(es)			
GS4GG (or GS)	Gold Standard for Global Goals			
IPCC	Intergovernmental Panel on Climate Change			
КР	Kyoto Protocol			
МР	Monitoring Plan			
MR	Monitoring Report			
NGO	Non-Governmental Organization			
ОМ	Operational Margin			
PDD	Project Design Document			
РР	Project Participant			
SDG	Sustainable Development Goal			
SECI	Solar Energy Corporation of India Limited			
TAC	Gold Standard Technical Advisory Committee			
UNFCCC	United Nations Framework Convention for Climate Change			
VVB	Validation and Verification Body			
vvs	Validation and Verification Standard			



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## 1. INTRODUCTION

#### 1.1 Objective

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by Clean Solar Power (Bhadla) Pvt. Ltd. to perform the 1<sup>st</sup> periodical verification of "300 MW Solar PV Plant at Bhadla, Rajasthan" applying the methodology ACM0002 Version 20.0<sup>/04/</sup> and GS4GG guideline<sup>/06/</sup>. Gold Standard projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Gold Standard VERs.

The objective of the verification work is to assess the compliance with the requirements of paragraph 62 of the CDM Modalities and Procedures as well as the GS4GG guidelines<sup>/06/</sup> and relevant Principles and Requirements. According to this assessment Applus+ Certification shall:

- Ensure that the project activity has been implemented and operated as per the registered PDD and that all physical features (technology, project equipment, monitoring and metering equipment) of the project are in place;
- Ensure that the published MR and other supporting documents provided are complete, verifiable and in accordance with applicable CDM validation and verification standard for project activities, Version 03.0<sup>/05/</sup> and Gold Standard<sup>/06/</sup> (i.e., applicable GS4GG requirements);
- Ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology<sup>/04/</sup>;
- Evaluate the data recorded and stored as per the ACM0002 Version  $20.0^{/04/}$ .

#### 1.2 Scope

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the DOE. The verification is based on the submitted monitoring report, registered PDD<sup>/03/</sup> as well as its validation report, the applied monitoring methodology, relevant decisions, clarifications and guidance from the CMP and the EB, GS4GG guideline and any other information and references relevant to the project activity's resulting emission reductions. These documents are reviewed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures, GS4GG guideline<sup>/06/</sup> and relevant Principles and Requirements, as well as their related rules and guidance.

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

The verification considers both quantitative and qualitative information on emission reductions. The verification also considers the monitoring of SDG goals as per the requirement of GS4GG guideline<sup>/06/</sup>.



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

## **1.3 Description of the project activity**

Clean Solar Power (Bhadla) Pvt. Ltd. is the promoter of the project activity and involves installation of installation of 300 MW solar power project in Rajasthan. Electricity generated from the project activity is sent to Indian grid of India. As per GS4GG PDD<sup>/03/</sup>, the project will replace anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 693,327 tCO<sub>2</sub>e per annum, thereon displacing 741,845 MWh/year amount of electricity from the generation-mix of power plants connected to the Indian electricity grid, which is mainly dominated by thermal/ fossil fuelbased power plant.

The monitoring of emission reduction and sustainable development indicators has been carried out in accordance to respective registered GS4GG PDD<sup>/03/</sup>.

## 2. METHODOLOGY

Applus+ Certification approach to the verification is a two-stage process. In the 1<sup>st</sup> stage, Applus+ Certification completed a strategic review and risk assessment of the project's activities and processes in order to gain a full understanding of:

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

Applus+ Certification used a periodical Verification Checklist which, based on the risk-based assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

In the 2<sup>nd</sup> stage, using the Verification Checklist, Applus+ Certification verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved a Site Visit and a desk review of the Monitoring Report. This Verification Report describes the findings of this assessment.

## 2.1 Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national business environment, LGAI Technological Center, S.A. (Applus+ Certification) has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of LGAI Technological Center, S.A. (Applus+ Certification).



The composition of audit team shall be approved by the LGAI Technological Center, S.A. (Applus+ Certification) ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A) / Auditor in Training (AiT).
- Technical Expert (TE).
- Technical Reviewer (TR).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Dr. Atul Takarkhede	LA/TE	YES	YES	NA	YES
Mr. Denny Xue	TR	YES	YES	NA	NA

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

#### **2.2 Document review**

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

- Verify the completeness of the data and the information presented in the MR;
- Check the compliance of the MR with respect to the monitoring plan depicted in the registered GS4GG PDD, verify that the applied methodology was carried out. Particular attention to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures of the power plant was checked by the assessment team.
- Evaluate the data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.
- Please check reference 4 of this report for detail of the documents checked.

#### 2.3 On site assessment and follow up interviews

In the context of verification, the GS4GG principles and requirements version 1.2, para 5.1.26 requires VVB to conduct a site visit including the assessment of the monitoring report and all supporting evidence and documents included by the Project Developer to demonstrate conformity.



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No.		Interviewee		Date	Subject	Team
	Last name	First name	Affiliation		_	member
1.	ν.	Mr. Vijayanand	PP representati ve	28/10/2021	Project implementation, Baseline emissions, ER calculations, Sustainable monitoring, Grievance mechanism etc.	Dr. Atul Takarkhede
2.	Pandey	Mr. Manish Kumar	Plant-in- Charge	28/10/2021	Employment opportunities, Trainings, Salaries etc.	
3.	Thakur	Mr. Ram Singh	Local stakeholder	28/10/2021	Stakeholder meeting- Employment	
4.	Pawaiyaa	Mr. Krishna	Local stakeholder	28/10/2021	opportunities, Standard of Livings etc.	
5.	Sharma	Mr. Nitya	Consultant	28/10/2021	MR and ER calculation.	

## 2.4 Quality of evidences

Sufficient evidence covering the full verification period in the required frequency is available to verify the figures stated in the final MR Version  $04^{/01/}$ . Specific cross-checks have been done in cases that further sources were available. The monitoring report's figures were checked by the assessment team against the raw data. The data collection system meets the requirements of the monitoring plan as per the methodology.

## 2.5 Reporting of findings

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

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

- Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;



- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

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

All CARs /CRs/ FARs raised during verification shall be resolved prior to submitting a request for issuance.

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

Please refer Appendix 1 of this report. Total numbers of CARs: 04, CLs: 00, FARs: 03 (Raised during design review by Sustain-Cert, same is closed during current verification)

## 2.6 Internal Quality Control

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

## 3. VERIFICATION FINDINGS

## **3.1 FARs from Validation / Previous Verification**

This is 1<sup>st</sup> periodic verification for the project activity and No FAR is raised during validation & previous verification. However, 03 Nos FARs were raised by Sustain Cert during Design review and same is closed by VVB during current monitoring period.

## **3.2 Project Implementation in accordance with the registered Project** Design Document

The project activity was fully implemented according to the description presented in the registered GS4GG PDD<sup>/03/</sup>. The assessment team confirms, through the site visit that all physical features of the project activity including data collecting systems and storage have been implemented in accordance with the registered GS4GG PDD<sup>/03</sup>.

The technical features of the equipment's have been verified by the assessment team by reviewing following documentation:

- Interviews of onsite personnel's during Site Visit.
- Technical detail analysis of the power plant from the documents submitted by the manufacturer.
- Commissioning certificates of the plant
- PPA for the project activity



- Clean Solar Power (Bhadla) Pvt. Ltd. has installed solar power project at Bhadal Village, Jodhpur District, Rajasthan State, India with capacity of 300 MW.
- Technical details are as follows:

The details of equipment installed at project activity are as follows:

Item	Description
Plant Capacity	300 MW
Solar PV Module	433 MWp
Module Type	Polycrystalline
Capacity of each Module proposed	335 Wp/325 Wp/315Wp
Inverter Capacity	2500 kWac
Solar Inverter	Central

Technical specifications of the Solar PV module are provided in the section B.1 of the  $MR^{/01/}$ . Same are conformed during the interviews with PP and Specification document<sup>/19/</sup>, commissioning certificates<sup>/11/</sup> & validation report<sup>/03/</sup> found correct.

The project activity was commissioned in phased manner as stated in table above and same was verified from the commissioning certificate issued by SECI<sup>/11/</sup>.

The project activity was in normal operational during the monitoring period and the same has been confirmed during interviews with PP and crosschecked from review of DSA (Deviation Settlement Account)<sup>/09/</sup> & breakdown records<sup>/12/</sup> submitted by PP. Power plant was working throughout the monitoring period and same have been conformed from DSA (Deviation Settlement Account) values. No unusual activates observed during the monitoring period and plant was undergone scheduled as well as emergency maintenance as per the recommendation of the manufacturers. No forced breakdown observed and the same is confirmed by the assessment team with the plant log details and DSA (Deviation Settlement Account).

The verification team has reviewed the commissioning certificates<sup>/11/</sup> & PPA<sup>/17/</sup> to conclude that the capacity of the project is same as mentioned in the registered GS4GG PDD and explained by PP during site visit. The capacity of the project activity does not change after the registration of the project activity and same have been confirmed from the commission certificate, PPA and DSA Reports issued by Northern Regional Power Committee and Invoices raised by the PP towards SECI.

Also, from review of other documents such as Commissioning certificate<sup>/11/</sup>, PPA<sup>/17/</sup> & DSA Report<sup>/09/</sup>, it was observed that the rated capacity of the project is 300 MW. The capacity of the project is more than 15 MW and thus the same qualifies as large-scale project activity.

Plant is located in Rajasthan state of India. Assessment team also checked the locations of the project activity in the registered GS4GG PDD, validation report. Thus, location provided in MR are found in line with registered documents of the project activity and are as stated in table above.

The project is connected to National grid<sup>/17/</sup> (as per the grid structure of India) and the same is found correct by the assessment team during the review of commissioning certificate<sup>/11/</sup>, PPA<sup>/17/</sup> and interviews with PP. The grid structure as mentioned in the GS4GG PDD<sup>/03/</sup> is still applicable for the project and ex-ante emission factor as proposed in the GS4GG PDD<sup>/03/</sup> is used for emission reduction calculation. Assessment team noted that the project activity has entered a power purchase agreement with the SECI<sup>/17/</sup>. The electricity is fed in the Integrated Indian grid.

Thus, assessment team confirms that the project is implemented as per the registered GS4GG  $PDD^{/03/}$  and no change in project design is envisaged for the present monitoring period.



The amount of GS-VERs achieved during the present monitoring period are  $5.35\%'^{02/}$  lower than the estimated value in the GS4GG PDD<sup>/03/</sup>. This is due to the less sunny days during the monitoring period, which is not in control of PP, thus accepted.

Assessment team also checked the metering details of the connected solar plant and found the same to be appropriate. Feeder details were confirmed from the interviews with PP, and commissioning certificate submitted by PP.

Assessment team also checked that the project is not registered under the REC mechanism of India and the same can be cross-checked at <u>https://recregistryindia.nic.in</u>. Also, International REC (I-REC) registry (<u>https://evident.services/device-register</u>) is cross-checked and found that this project is not under I-REC as well. Thus, double counting for the current monitoring period is ruled out.

Assessment team also checked the other registry like UNFCCC and VCS and found that project is not registered with UNFCCC or VCS.

#### **Grievance Mechanism:**

During the interviews with PP, the verification team confirmed that there is a grievance book/form with GS contact information at the project site office and are accessible to local stakeholders. By checking grievance book submitted by PP, it was able to confirm there are no comments received from the local people for the present monitoring period towards project activity. Local people are happy with the implementation of the project activity as it entrusts employment and improve living standard of local people and villagers.

#### Materiality adopted in Verification:

Consideration of materiality in planning the verification

No.	Risk that would	Assess	ment of the risk	Response to the risk
	lead to material errors, omissions or misstatements	Risk levels	Justification	in the verification plan and/or sampling plan
1	Human errors: Readings from Meters (if not automatic)	LOW	Human error is likely to occur if the monitoring personnel are not trained well or inexperienced in data recording procedures and monitoring processes.	All the personal are well trained to monitor and collect data and thus risk associated with Human error is minimized. Assessment team checked the training records to confirm that all the personal are well trained to handle the activities related to monitoring. Assessment team checked the training records for the complete monitoring period and confirm that the personal are well trained to monitor and collect data for the project activity.



No.	Risk that would	Assess	ment of the risk	Response to the risk	
	lead to material errors, omissions or misstatements	Risk levels	Justification	in the verification plan and/or sampling plan	
2	Human error: Quantification of emission reduction	LOW	Use of spread sheets without adequate data control, changes/updates, version tracking, traceability and security	All the energy statement i.e., DSA Report and the invoices for the complete monitoring period are checked and thus the assessment team confirms that the ER value is conservative and correct.	

#### Consideration of materiality in conducting the verification

In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. It follows the paper trail back to the raw data such as meter reading records and invoices. There are no material errors, overestimation of ER, omission or misstatement.

## **3.3 Compliance of the Monitoring Plan with the Monitoring** Methodology

The verification team is able to confirm that the monitoring plan is in accordance with the approved methodology ACM0002 Version  $20.0^{/04/}$ , applied by the GS project activity.

No deviation, correction or permanent change to the monitoring plan has been requested or observed.

#### **3.4 Completeness of Monitoring**

The monitoring has been carried out in accordance with the monitoring plan contained in the GS4GG PDD. All parameters were monitored and determined as per the monitoring plan of the GS4GG PDD as follows:

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

EFom,y, EFBM,y & EFcm,y was mentioned as ex-ante fixed parameter.

The values considered ex-ante for this monitoring period were cross-checked with registered GS4GG  $PDD^{/1/}$  and their respective sources. The summary of all the ex-ante parameters has been given below:

Parameter/ Description	Value applied	MoV
SDG 13: Climate Action EFом, y Operating Margin CO <sub>2</sub> emission factor in year y	0.9568 tCO <sub>2</sub> /MWh	The value of the parameter was checked from registered GS4GG PDD <sup><math>11</math></sup> . The value of the parameter was sourced from CEA database version $16^{/3/}$ .
SDG 13: Climate Action	0.8682 tCO <sub>2</sub> /MWh	The value of the parameter was checked from registered GS4GG



Parameter/ Description	Value applied	MoV
EF <sub>BM</sub>		PDD <sup>/1/</sup> . The value of the parameter
Build Margin CO <sub>2</sub> emission		was sourced from CEA database
factor in year y		version 16/3/.
SDG 13: Climate Action	0.9346 tCO <sub>2</sub> /MWh	The value of the parameter was
		checked from registered GS4GG
<b>ЕГ</b> СМ, у		PDD <sup>/1/</sup> . The value of the parameter
Combined Margin CO <sub>2</sub>		was calculated using CEA database
emission factor in year y		version 16 <sup>/3/</sup> .

The value mentioned in the Monitoring Report and Emission Reduction Spreadsheet are consistent with the registered GS4GG PDD. The applied value is correct and justified.

#### b. Data and parameters monitored

As per the registered monitoring plan and requirement of the registered methodology following parameters needs to be monitored:

#### Relevant SDG indicators = 7.2.1 Affordable and Clean Energy

1. EG<sub>facility, y</sub>: Total electricity exported to the grid (MWh)

The parameter EG<sub>facility, y</sub> is taken from REA (Regional Energy Accounting) data under DSA (Deviation Account Settlement) sheet<sup>/09/</sup> issued by Northern Regional Power Committee (NRPC) of India which provide the values of week wise Net export for the. The same is thus used for emission reduction calculation. The project activity includes metering at the substations managed by SECI & PP/O&M Contract<sup>/18/</sup>. The DSA is uploaded on weekly basis and given in LU and will be converted into MWh. The electricity exported & imported are measured by Energy meters (main meter) installed at each line in substation. The reading is recorded and the difference from last month reading gives the number of units imported/exported. Meters are of 0.2s accuracy class. The export and import reading are continuous and recording frequency is weekly. The QA/QC procedure is as per the requirement of the registered GS4GG PDD/03/ and onsite practice. Assessment team confirms the same during the interviews with PP. Assessment team checked all the values of calculated Net electricity supplied to the grid from the DSA Report (provides the value of net export) issued by NRPC. Moreover, as per the requirement of the approved methodology and registered GS4GG PDD<sup>/03/</sup>, assessment team cross checked the net electricity value as presented in the DSA report/09/ with the invoice/09/ raised to SECI and found the values match with each other. The same is thus acceptable to the assessment team and thus emission reduction calculation is correct.

#### c. Implementation of sampling plan

PP did not apply sampling plan to determine data and parameters monitored during this monitoring period. The verification team has checked all the documents such as DSA report issued by NRPC / Invoices raised to SECI etc. and hence sampling plan was not required. The verification team hereby confirms that has checked all the documents.

# d. Compliance with the calibration frequency requirements for measuring instruments

The calibration details such as make, accuracy class serial number is as per the meter available onsite and checked during verification Site Visit interviews. The Calibration details $^{10/}$  are



presented in Appendix 2 of this report. Calibration<sup>/10/</sup> of meters carried out by a M/s Authentic Instrument and Automation Pvt. Ltd. for testing and calibration, Govt of India (<u>http://www.nabl-india.org/</u>) to carry out calibration.

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

## 3.5 SDG Outcomes Monitoring

Meth/tool	Relevant SDG indicator	GS PDD	MR	Complianc e
Quantity of net electricity supplied to the grid	SDG 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh	Yes
<ul> <li>Quantitative employment,</li> <li>Quality of employment</li> </ul>	8.6: 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	<ul> <li>Training of Staff</li> <li>Quantitative employment</li> </ul>	<ul> <li>Training of Staff</li> <li>Quantitative employment</li> </ul>	Yes
Take urgent action to combat climate change and its impacts	SDG 13: Take urgent action to combat climate change and its impacts	Emission reductions achieved per year	Emission reductions achieved per year	Yes
Hazardous Waste	Safeguarding principle: 4.3.5	Hazardous Waste	Hazardous Waste	Yes

In the Registered GS4GG PDD indicators are chosen for the monitoring of sustainable monitoring:

The verification of the parameters required by the monitoring plan is provided as follows:

Relevant SDG Indicator	SDG 7.2.1: Affordable and Clean Energy		
Data/parameter:	EG <sub>facility,y</sub>		
Unit	MWh		
Description	Total electricity exported to the grid		
Source of data checked by the assessment team	REA data from Northern Regional Power committee <sup>/09/</sup>		
Value(s) of monitored parameter	1,154,195 MWh		
	Year EG <sub>facility,y</sub>		
	2019 15,028.71		
	2020 705,470.61		
	2021 433,696.49		



Means of verification:	The parameter EG Facility, y is taken from REA (Regional Energy Accounting) data under DSA (Deviation Account Settlement) sheet/09/ issued by Northern Regional Power Committee (NRPC) of India which provide the values of week wise Net export for the. The same is thus used for emission reduction calculation. The project activity includes metering at the substations managed by SECI & PP/0&M Contract/18/. The DSA is uploaded on weekly basis and given in LU and will be converted into MWh. The electricity exported & imported are measured by Energy meters (main meter) installed at each line in substation. The reading is recorded and the difference from last month reading gives the number of units imported/exported. Meters are of 0.2s accuracy class. The export and import reading are continuous and recording frequency is weekly. The QA/QC procedure is as per the requirement of the registered GS4GG PDD/03/ and onsite practice. Assessment team confirms the same during the interviews with PP. Assessment team checked all the values of calculated Net electricity supplied to the grid from the DSA Report (provides the value of net export) issued by NRPC. Moreover, as per the requirement of the approved methodology and registered GS4GG PDD/03/, assessment team cross checked the net electricity value as presented in the DSA report/09/ with the invoice/09/ raised to SECI and found the values match with each other. The same is thus acceptable to the assessment team and thus emission reduction calculation is correct.
Cross check mechanism	The DSA Report is cross-checked with the invoice copies. Emission reduction calculated in thus correct and accurate. The cross-check mechanism is presented in the emission reduction calculation sheet and the same is found correct.

Relevant SDG Indicator	SDG 13.2.1: Climate Action		
Data/parameter:	ERy		
Unit	tCO <sub>2</sub>		
Description	CO <sub>2</sub> emission reduction due to implementation of project activity		
Source of data checked by the assessment team	Emission reduction sheet <sup>/02/</sup>		
Value(s) of monitored parameter	1,078,700 Year ER <sub>y</sub> 2019 14,045 2020 659,326 2021 405 220		
Means of verification:	Assessment team checked that the parameter is calculated. The electricity exported & imported measured by Energy meter installed at substation. The DSA Report is cross-checked with the invoice copies. Emission reduction calculated in thus correct and accurate.		

Safeguarding principle:	4.3.5
Data/parameter:	Hazardous Waste
Unit	tCO <sub>2</sub>
Description	The manufacture, trade, release, and use of hazardous chemicals and/or materials
Source of data checked by the assessment team	Plant Records



Value(s) of monitored parameter	0
Means of verification:	Assessment team checked that the parameter is measured. The waste is disposed to the waste handlers and the firm is complies with all the local laws for monitoring and disposal. The VVB team verified the plant records and observed no hazardous material used or released as waste by project activity during monitoring period
Cross check mechanism	-

Relevant SDG Indicator	SDG 8.5.1: Decent Work and Economic Growth		
Data/parameter:	Quality of employment		
Unit	Numbers		
Description	Number of Trainings provided to employees <sup>/07/</sup>		
Source of data checked by the assessment team	Plant records or the training records <sup>/07/</sup> for all the employees/DOE interview with employees, local stakeholders etc.		
Value(s) of monitored parameter	Assessment team checked Number of Trainings provided to employees & O&M staffs. A total of 33 training programmes <sup>/7/</sup> to its employees and O&M staffs. The training records for the monitoring period is checked by the assessment team and found correct.           Year         Number of Trainings           2020         22           2021         11		
Means of verification:	The value for this parameter is taken from Plant records. Verification team interviewed some employees & local stakeholders.		
Cross check mechanism	Not applicable		

<b>Relevant SDG Indicator</b>	SDG 8.5.1: Decent Work and Economic Growth				
Data/parameter:	Quantitative employment				
Unit	Number (employees)				
Description	Number of project employees with Number of male/femal permanent/temporary, age and person with disabilities.	le,			
Source of data checked by the assessment team	Employment records <sup>/20/</sup> for project activity/ Letter from O& contractor <sup>/13/</sup> for employment generation/ DOE interview wi employees, local stakeholders etc	kM ith			
Value(s) of monitored parameter	<ul> <li>employees, local stakeholders etc</li> <li>Assessment team checked that for Quantity of employment. Employment is given in office work, O&amp;M, Security etc. A total of 33 employment (28 Permanent and 05 temporary). The employment records for the monitoring period are checked by the assessment team and found correct. During monitoring period, total salary disbursed by PP to employees was 1,45,83,333 INR. Same is verified as per PP declaration and according with the minimum wages as per state government regulation.</li> <li>Moreover, Assessment team verified through salary slips that no discrimination made against female workers and same pay-out has been to both male and female as per their pay scale.</li> </ul>				



	2020	7,000,000 INR			
	2021	7,000,000 INR			
			-		
	Year	Local	Non-Local	Total	
	2019-21	28	5	33	
	Year	Male	Female	Total	
	2019-21	18	15	33	
	During monitoring period, Due to COVID-19 situation throughout the host country, PP faced lack of skilled and semi-skilled employees. Thus, PP has generated less employments than estimated amount. Reason for the less employment is totally not in control of PP thus accepted by assessment team.				
Means of verification:	The value for number of employments created is taken from Plant employment records <sup>/13/</sup> , and PP declaration. Verification team interviewed some employees and Local stakeholders.				
Cross check mechanism	Not applicable				

Relevant SDG outcome has been included in ER sheet and have been found correct.

During the interviews with PP, the verification team confirmed that there is a grievance book<sup>/15/</sup> at project site. Every stakeholder has access to the grievance register and can lodge grievance any time. Same if any is resolved as per the standard operating procedures of the company. By checking grievance book<sup>/15/</sup> submitted by PP, it was able to confirm there are no negative comments received from the local people for the present monitoring period. Staff complaints/grievances were addressed as per the company polices. Local people are happy with the implementation of the project activity as it entrusts employment and improve living standard of local people and villagers.

Assessment team also checked the Indian domestic REC web site (<u>https://recregistryindia.nic.in/</u>) & International REC device registry (<u>https://evident.services/device-register</u>) and confirms that the project is not undertaking any REC benefits at present nor intended to take it in near future.

Assessment team also checked the other registry like UNFCCC and VCS and found that project is not registered with both mechanisms.

Applus+ Certification conducted an interview with the project owner and local stakeholders please find the summary of the interview as below:

Sections	Debriefing
Trainings & salaries of the employees	During verification process Mr. Vijayanand V, PP representative team was interviewed. It was noted that regular technical & nontechnical trainings were conducted and the salaries are in line with the industry standard.

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

#### Summary of ex-post values of each SDG outcome for the current monitoring period



Item	Baseline estimate	Project estimate	Net benefit
SDG 7: Affordable and Clean Energy	0 MWh	1,154,195 MWh	1,154,195 MWh
SDG 8: Decent Work and Economic Growth	0 Training provided to O&M Staff 0 employment generation	33 Trainings provided to O&M Staff 33 employments generation	No. of trainings conducted: 33 Trainings No. of employment opportunities created: 33 employments
SDG 13: Climate Action	1,078,700 tCO <sub>2</sub> e	0 tCO <sub>2</sub> e	1,078,700 tCO <sub>2</sub> e

Comparison of actual value of outcomes with estimates in approved GS4GG PDD

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
SDG 7: Affordable and Clean Energy	741,845 MWh/year 1,219,471 MWh for current MP	1,154,195 MWh
SDG 8: Decent Work and Economic Growth	01 trainings provided to O&M Staff 36 employment generation	33 Trainings provided to O&M Staff 33 employments generation
SDG 13: Climate Action	693,327 tCO <sub>2</sub> e/year 1,139,716 tCO <sub>2</sub> e for current MP	1,078,700 tCO <sub>2</sub> e

## **3.6 Assessment of Data and Calculation of Greenhouse Gas Emission** Reductions

As a result of verification of the ER calculation process, the assessment team confirmed that all the parameters required for the determination of the emission reductions have been included in the Monitoring Report Version  $01^{/01/}$ , Version  $02^{/01/}$ , Version  $03^{/01/}$ , Version  $04^{/01}$  and corresponding ER calculation spread-sheets and are consistent with the applied methodology ACM0002 Version 20.0 and the monitoring plan contained in the registered GS4GG PDD. The parameters are complete in this monitoring period.

After verifying the reported figures with the raw data sources, it's confirmed that the values of the parameters from the raw data sources are consistent with those quoted in the Monitoring Report Version  $01^{/01/}$ , Version  $02^{/01/}$ , Version  $03^{/01/}$ , Version  $04^{/01}$  and corresponding ER calculation spread-sheets. The verification process for the same has been clearly described in above section of the report. See below for the detailed data:

Baseline Emissions for the amount of electricity supplied by project activity, BE<sub>y</sub> is calculated as:

The baseline emission is using equation below:

#### $\textbf{BE} \ \textbf{y} = \textbf{EGPJ, facility,y} \times \textbf{EFgrid,CM.y}$

;EG<sub>PJ, y</sub> = EG<sub>facility, y</sub>

BE<sub>y</sub> = 1,154,195 x 0.9346 = 1,078,700 tCO<sub>2</sub>e (round down figure)



Thus, the baseline value of each SDG outcome is summarised as follows;

Item	Baseline value
SDG 7: Affordable and Clean Energy	No Activities in the baseline
SDG 8: Decent Work and Economic Growth	No Activities in the baseline
SDG 13: Climate Action	No Activities in the baseline

#### **Project emissions:**

The project is a solar power project, no fossil fuel is be consumed according to the methodology ACM0002 Version 20.0 & according to registered GS4GG PDD,  $PE_y = 0 \text{ tCO}_2e$ 

#### Leakage:

As per ACM0002 Version 20.0, No leakage emission needs to be considered.

#### **Emission reductions:**

Thus, the emission reductions are:

 $\mathsf{ER}_{y}\!\!=\mathsf{BE}_{y}\!-\mathsf{PE}_{y}$ 

= 1,078,700 - 0

= 1,078,700 tCO<sub>2</sub>e

The amount of GS-VERs achieved during the present monitoring period are 5.35% lower than the estimated value in the GS4GG PDD. This is due to the Less sunny days during the monitoring period. Same is not in control of project participants. Hence accepted by assessment team.

## 3.7 Management and Operational System

The responsibilities of data measurement, collection, verifying, archiving etc. have been clearly defined in the registered GS4GG PDD. The same practice is followed onsite and it is confirmed by the assessment team during the interviews with PP. The data related to ER calculation<sup>/02/</sup> as well as data monitoring, collection process etc. have been internally reviewed by the management of the Monitoring team regularly. The responsibility of each function is consistent with the monitoring plan in the registered GS4GG PDD<sup>/03/</sup>.

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

It's verified during the interviews with PP & document review, the monitoring procedure as well as the internal quality management and control procedures are stipulated in the GS4GG PDD<sup>/03/</sup>. The monitoring personnel have been interviewed by the assessment team and it's confirmed that the monitoring is implemented as per the procedure. Also, the training record has been checked by the assessment team and it is confirmed that the monitoring personnel are get sufficient train to perform the monitoring.

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



## 4. <u>REFERENCE</u>

	LIST OF DOCUMENTS
S. No.	Document/Evidence/Reference/Web link, Version, Date
1.	Monitoring Report Version 01 dated 30/08/2021, Monitoring report version 02 dated 25/04/2022 Monitoring report version 03 dated 25/04/2022 Final Monitoring report version 04 dated 04/08/2022 (GS4GG Design Review)
2.	ER sheets Version 01 dated 30/08/2021 ER Sheets version 02 dated 25/04/2022 Final ER Sheets version 03 dated 25/04/2022
3.	Registered GS4GG PDD Version 05 dated 15/01/2022, Final GS Validation report version 03 dated 15/01/2022 GS Design & performance review documents
4.	ACM0002: Grid-connected electricity generation from renewable sources, Version 20.0
5.	CDM validation and verification standard for project activities, Version 03.0
6.	GS4GG guideline
7.	Training records of the employees (both skilled/non-skilled)
8.	O&M policy
9.	Monthly reports issued by state utility and invoices raised by PP for the complete monitoring period
10.	Calibration certificates of the complete monitoring period
11.	Commissioning certificates for power plant
12.	Log book records for scheduled maintenance of the power plant for the complete monitoring period
13.	Sample work contract for both skilled and non-skilled manpower
14.	CSR report
15.	Grievance register
16.	HSE procedures
17.	Power purchase agreement
18.	O&M agreement
19.	Technical manual from the Manufacturer
20.	Employment records



## 5. FINAL VERIFICATION STATEMENT

Applus+ Certification has been engaged by Clean Solar Power (Bhadla) Pvt. Ltd. to perform the  $1^{st}$  periodical verification of the "300 MW Solar PV Plant at Bhadla, Rajasthan" (GS Ref. No. GS7726).

The management of Clean Solar Power (Bhadla) Pvt. Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's Monitoring Plan in the registered GS4GG PDD and the applied methodology ACM0002 Version 20.0.

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

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

In our opinion, the GHG emission reductions for "300 MW Solar PV Plant at Bhadla, Rajasthan" for the monitoring period 10/12/2019 to 31/07/2021 (Both days included) as reported in Monitoring Report, prepared on the basis of the project's Monitoring Plan are fairly stated.

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

Reporting period:	10/12/2019 to 31/07/2021 (Both days included)
Verified emissions in the above reporting pe	riod:
Leakage emissions	0 tCO <sub>2</sub> e equivalents
Project emissions	0 tCO <sub>2</sub> e equivalents
Baseline emissions	1,078,700 tCO <sub>2</sub> e equivalents
Emission reductions	1,078,700 tCO <sub>2</sub> e equivalents

Vintage wise breakup of verified emission reduction is given below:



Year	Baseline emission (tCO <sub>2</sub> )	Project Emission (tCO <sub>2</sub> )	Emission Reduction (tCO <sub>2</sub> )
10/12/2019 to 31/12/2020	14,045		14,045
01/01/2020 to 31/12/2020	659,326	0	659,326
01/01/2021 to 31/07/2021	405,329	0	405,329
Total	1,078,700	0	1,078,700



Date:08/08/2022Lead Auditor:Dr. Atul TakarkhedeTech. Expert:Dr. Atul TakarkhedeTech. Reviewer:Mr. Denny Xue

**Approver** (*Applus+ Certification VVB Technical Manager*) Mr. Agustín Calle de Miguel

ASSESSMENT TEAM					
Lead Auditor: Dr. Atul Takarkhede	Technical Reviewer: Mr. Denny Xue				
Signature:	Signature:				
Analartervale	Denny Xie				
Approver: Mr. Agustí	n Calle de Miguel				
Signature:	£.				



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

Туре:	🖂 CAR	CL/CR	🗌 FAR	Number:	01
Raised by:	Atul Takarkhede			Ref. to checklist in above tables:	3.2
Description of th	ne audit finding			Date:	08/11/2021
PP is requested to submit final copies of project registration and Design Review documents to assessment team. Kindly submit.					
Project Participa	nt's response			Date:	25/04/2022
PDD and validat	ion report is subm	nitted herewith			
Documentation provided as evidence by Project Participant					
1.Registered PDD v.05					
2. Final Validation	on report				
3. Final Design	Review document				
Auditor's assess	ment comment			Date:	22/05/2022
PP has submitted registered PDD, final validation report and final design review document to assessment team. During review, VVB team observed 03 FARs are raised by Sustain-cert during design review. All are now closed during current verification. Thus, <b>CAR is closed</b> .					

Type:		🛛 CAR	CL/CR	🗌 FAR	Number:	02
Raised b	by:	Atul Takarkhe	de		Ref. to checklist in above tables:	3.2
Descript	ion of th	ne audit finding			Date:	08/11/2021
Followin	ig discre	pancies observ	ed during the revi	ew of monitor	ing report:	
<ol> <li>PP requested to submit the monitoring report completing all sections inline with the latest versions of the GS guidelines. Corrective action sought.</li> </ol>				inline with the latest		
2.	$\ensuremath{PP}$ requested to review & refer version of the registered PDD and update monitoring report accordingly. Corrective action sought.					
3.	3. Editorial mistakes observed in the MR and same are mentioned in the commented MR. Thus corrective action sought for the same.					
4.	PP is requested to reframe the language throughout the monitoring report as the project is already commissioned and contributing towards sustainable development & emission reductions.					
5.	PP req PPA, O	uested to subm &M agreements	it technical specif s and grievance re	ications of the ecords. Kindly	e power plant, com submit.	missioning certificates,

Project Participant's response	Date:	25/04/2022	
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Туре:			CL/CR	FAR	Number:	02
Raised b	by:	Atul Takarkhede			Ref. to checklist in above tables:	3.2
1.	Revised the GS	d MR Version 2.0 guidelines.	is updated by co	ompleting all	sections inline with	the latest versions of
2.	Revise	d MR Version 2.0 i	s referred to the	PDD versior	ı 04.	
3.	The MF	२ is updated and r	evised as per th	e comments.		
4.	The lar	nguage of the revi	sed MR is refran	ned.		
5.	The fol	llowing Documents	s are submitted	herewith-		
A)	Techni	cal specification				
B)	Commi	issioning certificate	9			
C)	PPA					
D)	O and	M agreement				
E)	Grievar	nce register				
Docume	entation	provided as evider	nce by Project P	articipant		
1.	Revise	d MR Version 2.0				
2.	Techni	cal specification				
3.	Commi	issioning certificate	9			
4. 5. 6.	. PPA . O and M agreement . Grievance register					
Auditor's	's assess	ment comment			Date:	22/05/2022
1.	PP has correct	revised the Monit	oring report as p and <b>CAR is clos</b>	per guidelines <b>sed</b> .	s to complete GS4G	G MR template. Found
2.	PP has acknov	revised the monit	oring report as p us, accepted an	oer registered d <b>CAR is clo</b>	l PDD version 05. Sa s <b>ed</b> .	ame is found final PDD
	PP has rectified all editorial mistakes of monitoring report and revised the MR to version 02. Hence accepted and <b>CAR is closed.</b>					

- 4. PP has reframed the language throughout the monitoring report as the project activity is successfully implemented and contributing towards emission reduction. Thus accepted and CASR **CAR is closed.**
- 5. Following documents submitted by project proponent:
  - i. Power purchase agreement between PP and *Solar Energy Corporation of India Limited* dated 26/04/2018 for (Plot- R1, R2 and R3) project sites.
  - ii. Technical specification documents of solar PV module installed in project activity.
  - iii. a). Commissioning certificate ref no. SECI/SD/NSM/P2B4T11/COD/HSEPL/2019-20/36543, dated 05/03/2020 for (Plot -R1) issued by Solar Solar Energy Corporation of India Limited.
    b). Commissioning certificate ref no. SECI/SD/NSM/P2B4T11/COD/HSEPL/2019-20/36734, dated 12/03/2020 for (Plot -R2) issued by Solar Solar Energy Corporation of India Limited.
    c). Commissioning certificate ref no. SECI/SD/NSM/P2B4T11/COD/HSEPL/2019-20/35204, dated 07/01/2020 for (Plot -R3) issued by Solar Solar Energy Corporation of India Limited.
  - iv. Copy of Grievance register placed at each plant site for purpose of any grievances made by local stakeholders.
  - v. Copy of O&M agreement held between PP and O&M entity.

Above document found inline with revised MR. thus accepted and **CAR is closed.** 



Type:		🖾 car	CL/CR	🗌 FAR	Number:	03
Raised b	ised by: Atul Takarkhede		Ref. to checklist in above tables:			
Descript	tion of th	ne audit finding			Date:	08/11/2021
PP requ	ested to	submit supporting	g documents for al	ll the monit	oring parameters.	
1.	JMRs a	nd Invoice relevar	nt to the current m	nonitoring p	period.	
2.	Trainin	g records or the m	nonitoring period.			
3.	Provide	e breakup of emplo	oyees as number o	of locals, sk	tilled and unskilled	etc.
4.	Sample throug	e salary slips for hout MR.	review of asses	ssment tea	am. Further, Para	meter values missing
Moreove continue assessm	er, as pe ously fo nent tear	er the interviews ware any comments m. CAR is thus rais	with PP, a grievan from Stakeholder sed.	ice register r. Howevei	is placed at site a , the Register is	nd is being monitored not submitted to the
Project	Participa	int's response			Date:	25/04/2022
The follo	owing do	ocuments are subr	nitted herewith			
1.	JMR ar	nd Invoices				
2.	Trainin	g records				
3.	Employ	vee records, the br	reakup			
4.	Sample	e salary slip				
5.	Grieva	nce register				
Docume	entation	provided as evider	nce by Project Parl	ticipant		
1.	JMR ar	nd Invoices				
2.	Trainin	g records.				
3.	Employ skilled	vee records (33 er and 7 are unskille	mployment occurr d, 28 employees a	ed during t ire non-loca	this monitoring per al and 5 are local).	iod. 26 employees are
4.	Sample	e salary slip				
5.	Grieva	nce register				
Auditor	Auditor's assessment comment Date: 22/05/2022					
PP have and valu employe	e submit ues and ees & for	ted supporting do same found consi und that salaries a	cuments for elect istent with revised ire inline with the i	ricity gener I MR. PP al industry sta	ration records and so submitted samp andard. <b>CAR thus</b> of	breakup of employees le salary sheets of the <b>closed.</b>
Type:		🖾 CAR	CL/CR	🗌 FAR	Number:	04
Raised b	Type:     CAR     CL/CR     FAR       Raised by:     Atul Takarkhede				Ref. to checklist in above tables:	3.4

Project Participant's response	Date:	25/04/2022



The meters when installed	were pre-calibrated	but still	calibration	was	done	on .	June	2021,	certifica	ates
are submitted herewith.										

Documentation provided as evidence by Project Participant		
Calibration certificate		
Auditor's assessment comment	Date:	22/05/2022
Conjes of calibration certificates has been submitted to assess	nent team hy PP ar	nd during review of the

Copies of calibration certificates has been submitted to assessment team by PP. and during review of the same, team observed energy meters are scheduled calibrated. Thus accepted. **CAR is closed.** 

Туре:	CAR	CL/CR	🛛 Far	Number:	05
Raised by:	Sustain Cert			Ref. to checklist in above tables:	-
Description of the	ne audit finding			Date:	18/04/2022
At the time of verification, VVB shall check the rainwater drains and confirm its functionality.					
Project Participa	ant's response			Date:	25/04/2022
During the site	visit , auditor has	checked the drai	nage system		
Documentation	provided as evide	ence by Project P	articipant		
-					
Auditor's assess	ment comment			Date:	22/05/2022
During site visit, VVB team observed facility for draining of rain water is successfully provided at plant site. Thus <b>FAR is closed.</b>					

Туре:	🗌 CAR	CL/CR	🛛 Far	Number:	06		
Raised by:	Sustain Cert			Ref. to checklist in above tables:	-		
Description of t	he audit finding			Date:	18/04/2022		
At the time of verification, VVB shall check that salaries paid to the local, unskilled workers is as per local standards.							
Project Participa	ant's response			Date:	25/04/2022		
The salaries are with the minimu the minimum re	The salaries are paid above minimum wages as per local govt. The sample salary slip is submitted here with the minimum wage for unskilled worker is INR 252 per day. The salaries are provided in line with the minimum requirement.						
Documentation	provided as evid	lence by Project	Participant				
Sample salary slip of employees							
Auditor's assessment comment Date: 22/05/2022							
During verification, PP has submitted sample salary sheets of the employees & found that salaries are in line with the industry standard and local government pay out criterion. <b>FAR thus closed.</b>							

Type:	CAR	CL/CR	🛛 FAR	Number:	07
Raised by:	Sustain Cert			Ref. to checklist in above tables:	-



Description of the audit finding	Date:	18/04/2022			
Site visit shall be performed at the time of 1 <sup>st</sup> verification for this project activity. Verifying VVB shall confirm the location of the project activity in line with geo-coordinates.					
Project Participant's response	Date:	25/04/2022			
Site visit is conducted and VVB has verified the location.					
Documentation provided as evidence by Project Participant					
-					
Auditor's assessment comment	Date:	22/05/2022			
During Site visit, Assessment team verified location with geo-location applications and observed that geo- coordinates mentioned in registered PDD is correct. Hence accepted and <b>FAR is closed.</b>					

#### Appendix 2: Calibration details of monitoring meters

Details of Meter Calibration:

Meter Type	Meter SI. No.	Meter Make	Accuracy Class	First calibration date	Due Date	Date of Calibration	Due date for Calibration	Calibration Compliance
Main meter	2106286	G Tech		15/02/2020	14/02/225	23/06/2021	22/05/2026	
Main meter	E8272938	KYORITSU		28/02/2020	27/02/2025	23/06/2021	22/05/2026	No delay
Main meter	19090774	Amprobe	0.2.6	10/12/2019	09/12/2019	23/06/2021	22/05/2026	Observed
Check meter	NA	Fluke	0.2 5	15/02/2020	14/02/225	23/06/2021	22/05/2026	
Check meter	R190000453	AIT501		28/02/2020	27/02/2025	23/06/2021	22/05/2026	
Check meter	R190014149	AET23		10/12/2019	09/12/2019	23/06/2021	22/05/2026	

During verification of above details with copies of copies of calibration certificates and test reports. VVB team found no delay in scheduled calibration and in line with the registered PD. Thus accepted.

Name	SHORT CV. BACKGROUND INFORMATION
Dr. Atul Takarkhede	<b>Dr. Atul Takarkhede</b> is Ph.D. (Environmental Sciences) from Institute of Science, RTM Nagpur University, Nagpur, and he has already published different technical papers related to environmental sciences.
	He counts with more than 11 years of experience in field of Environmental Auditing, consulting and accreditation. He is an expert in ISO 9001-14001, CO2/GHG Reporting, Carbon Foot Print, Energy, Water and Waste Management reporting for organizations' environmental performance.
	His professional portfolio is mainly related with carrying out EIA, conducting QA/QC of EIA Reports; conducting environmental/water audits; NABET requirements

#### Appendix 3: Audit Team CVs



	appliance, functional area expert in Water Pollution & Solid & Hazardous Waste management among others.
	Furthermore, he counts with solid experience on CDM-VCS-GS consultancy and auditing. Currently he is associated with True Quality Certifications Private Limited and empanelled with Applus+ Certification to carry out GHG audits in the aforementioned schemes.
Mr. Denny Xue	<b>Mr. Denny Xue</b> has a Bachelor's Degree on Thermal Energy Engineering and Master's Degree on Environmental Engineering. He has more than 10 years of experience on CDM project development. Before he joined Applus+ LGAI, he has been worked for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development. He is working with Applus+ since 2011 carrying out Validation and verification for CDM/GS/VCS project under scope 1 and 13 as auditor, lead auditor, technical expert and technical reviewer.