



VERIFICATION REPORT

Solar Energy Project(s) by SB Energy Private Limited



South Asia

Document Prepared By
TÜV SÜD South Asia Pvt Ltd

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Out By**

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Summary:

TÜV SÜD South Asia Pvt. Ltd. has performed the third verification of the VCS project activity. The verification is based on the currently valid documentation of the VCS and United Nations Framework Convention on Climate Change (UNFCCC).

The Verification has been conducted for the monitoring period 02/02/2020 to 30/11/2021.

The verification process includes three phases:

- Desk review of documents.
- Off-site audit and follow-up interviews with the relevant personnel.
- Resolution of outstanding issues and the issuance of final verification report and opinion.

The verification includes confirming the implementation of the monitoring plan of the registered VCS PD and MR (VCS ID 1805) and the application of the monitoring methodology as per ACM0002 version 19: "Grid-connected electricity generation from renewable sources".

The project activity involves electricity generation by the solar power supplying the generated electricity to state DISCOM i.e., Indian grid. The project being a renewable energy generation activity, leads to reduction in fossil fuel dominated electricity generation. The project activity results in reductions of greenhouse gas (GHG) emissions that are real, measurable, and verifiable and also plays beneficial role in the mitigation of climate change.

The project activity comprises installation of a grid connected solar photovoltaic based power project with a total capacity of 2,250 MWAC in the state Andhra Pradesh, Rajasthan and Karnataka in India.

The purpose and scope of this verification is to ensure that reported emission reductions are complete and accurate in accordance with applicable VCS standards and relevant UNFCCC

requirements in order to be certified. A desk review and a remote site visit have been conducted to verify the data submitted in the monitoring report and PD. VVB confirms the following has been reviewed:

- Monitoring plan included in the registered PD.
- Validation report as per registered PD
- Approved methodology, ACM0002, version-19
- VCS standards version 4.1 and guidance version 4.0, as well as relevant UNFCCC requirements;
- All information and references relevant to the project activity's resulting in emission reductions.

1 Clarification Requests (CLs) and 2 CARs have been raised during verification process has been successfully closed. No Forward Action Request (FAR) was raised during this monitoring period.

VVB confirms that the project is implemented in accordance with the registered PD. The monitoring plan complies with the applied methodology ACM0002 version 19.0 and the monitoring has been carried out in accordance with the monitoring plan in the registered PD. The monitoring system is in place and the emission reductions are calculated without material misstatements. The level of assurance of the verification is reasonable. 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 VVB confirms that the implementation of the project has resulted in 3,142,587 tCO₂e emission reductions during period 02/02/2020 to 30/11/2021.

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APPENDIX 1: Documents reviewed

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1 INTRODUCTION

1.1 Objective

TÜV SÜD has been commissioned by the client to perform an independent verification assessment.

The objective of the verification work is to comply with the requirements of Verified Carbon Standards requirements. According to this assessment TÜV SÜD shall:

- ✓ Ensure that the project activity has been implemented and operated as per the registered PD, 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 VCS and CDM VVS 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,
- ✓ Evaluate the data recorded and stored as per the applicable requirements.
- ✓ Assessment of the sustainability monitoring parameters as per the VCS requirements.

1.2 Scope and Criteria

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of VCS project activities, the scope is set by:

- ✓ VCS v4.1 requirements.
- ✓ Clean Development Mechanism Validation and Verification Standard (VVS) for Project Activities v3.0.
- ✓ Baselines and monitoring methodologies (including GHG inventories).
- ✓ Environmental issues relevant to the applicable sectoral scope.
- ✓ Current technical and operational knowledge of the specific sectoral scope and information on best practice.
- ✓ Stakeholder consultation and feedback

The verification process is not meant to provide any form of consulting for the project participant (PP). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the project design.

1.3 Level of Assurance

The errors identified in the project are below the threshold limit of materiality and hence not material. The GHG emission reductions are calculated without material misstatements.

The VVB confirms that a reasonable level of assurance has been achieved during the verification process.

1.4 Summary Description of the Project

The project activity involves the installation of Solar PV Power Projects. The total installed capacity of the project is 2,250 MW, which involves operation of Solar PV projects in multiple states of India.

There are 8 SPVs involved in the project activity and each SPV is subsidiary of SB Energy Private Limited (project proponent). The details of investors (SPVs), installed capacity with location and commissioning status is provided in the below table:

S. No.	Owner of Project/ SPD	Project Location	State	Project Capacity (MW)	Commissioning Date	Status
1	SB Energy One Private Limited	Bhadla	Rajasthan	100	21/09/2018	Registered in Gold Standard GS7071: Registered
				100	24/09/2018	
				100	24/09/2018	
2	SB Energy Three Private Limited	Bhadla	Rajasthan	20	04/10/2018	
				20	04/10/2018	
				30	18/09/2018	
				30	18/09/2018	
3	SB Energy Four Private Limited	Bhadla	Rajasthan	200	03/05/2019, 09/07/2019	Registered in Gold Standard GS7532 - Registered
4	SBG Cleantech Project Co. Pvt Ltd	Kurnool	Andhra Pradesh	182	27/02/2017	Exists in verra
				68	22/03/2017	
				100	28/03/2017	
5	SB Energy Solar Private Limited	Ananthapur	Andhra Pradesh	250	20/12/2019, 11/03/2020	
6	SB Energy Six Private Limited	Phalodi, Jaisalmer	Rajasthan	600	Phase 1 (300 MW)– 14/06/2021	
					Phase 2(300 MW) – yet to be commissioned	

7	SBG Cleantech Project Co Five Private Limited	Pavagada a	Karnataka	200	17/12/2019	
8	SB Energy Seven Private Limited	Kadappa	Andhra Pradesh	250	Yet to be commission ed	Yet to be commissioned

Table 1: List of 8 SPVs included in the project activity

During the current monitoring period, PP has updated in the MR that out of 8 SPVs, 3 SPVs are registered under GS mechanism & deregistered from the VCS project activity and details of the same has been provided under below table:-

S. No.	Owner of Project/SPD	Project Location	State	Project Capacity (MW)	Commissioning Date	Status
1	SB Energy One Private Limited	Bhadla	Rajasthan	100	21/09/2018	Registered in Gold Standard GS7071: Registered
				100	24/09/2018	
				100	24/09/2018	
2	SB Energy Three Private Limited	Bhadla	Rajasthan	20	04/10/2018	
				20	04/10/2018	
				30	18/09/2018	
				30	18/09/2018	
3	SB Energy Four Private Limited	Bhadla	Rajasthan	200	03/05/2019, 09/07/2019	Registered in Gold Standard GS7532 - Registered

Table 2: List of SPVs seeking registration in other voluntary mechanism

Out of above 8 SPVs, Remaining 5 SPVs under project activity are not seeking registered under GS Mechanism & out of 5 SPVs, 4 SPVs are claiming carbon credits under VCS Mechanism during current monitoring period & 1 SPV yet to be commissioned but not seeking registration under GS Mechanism. Please refer below: -

S.No.	Owner of Project/SPV	Project Location	State	Project Capacity (MW)	Commissioning Date
1	SBG Cleantech Project Co. Pvt Ltd	Kurnool	Andhra Pradesh	182	27/02/2017
				68	22/03/2017
				100	28/03/2017
2	SB Energy Solar Private Limited	Ananthapur	Andhra Pradesh	250	20/12/2019, 11/03/2020
3	SB Energy Six Private Limited	Phalodi, Jaisalmer	Rajasthan	600	Phase 1 – 300 MW-14/06/2021 Phase 2 – Yet to be commissioned
4	SBG Cleantech Project Co Five Private Limited	Pavagadaa	Karnataka	200	17/12/2019
5	SB Energy Seven Private Limited	Kadappa	Andhra Pradesh	250	Yet to be commissioned

Table 3: List of SPVs registered in Verra

The commissioning dates of each sub-project is verified through the respective commissioning certificates. The verification team has also verified the latest photographs of all the equipment's (solar modules, inverters and transformers, energy meters) installed at site and SCADA monitoring system submitted by the project proponent.

Location of the project was verified through Google Map (<https://www.google.co.in/maps>). The emission reductions from the project activity during the period 02/02/2020 to 30/11/2021 (including both days) amount to 3,142,589 tons of CO₂e.

The assessment team has checked the verification records and interviewed the PPs representatives (telephonically) to verify the project details. Based on the assessment of the documents and remote interviews with PPs representatives, the assessment team is able to confirm that the project activity is fully functional and implemented.

2 VERIFICATIONPROCESS

2.1 Method and Criteria

The information provided by the project participants is assessed by applying the means of verification specified in the VCS v4.1, Toolkit and the VVS.

A competent assessment team is selected prior to the start of the verification. The team is selected to cover the technical area(s), sectoral scope(s) and relevant host country experience for evaluating the VCS project activity. Additionally, a competent Technical Reviewer or Technical Reviewer Team is appointed to conduct checks on quality and completeness.

The verification team performs first a desk review, followed by an remote-site visit, which results in the formation of a draft report and a list of findings. The next step involves the evaluation of the findings through direct communication with the PPs and then finally the preparation of the verification report. This verification report and other supporting documents then undergo an internal quality control by the CB “Environment and energy” before submission to the VCS.

2.2 Document Review

The following table lists the documentation that was reviewed during the verification process.

No.	Author	Title	References to the document
1	UNFCCC	CDM VVS for PA v3.0	
2	UNFCCC	ACM0002 – “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, Version 19.0	-
3	Verra	VCS Standard v4.1	-
4	Infinite Solutions	VCS MR – Version 5.0	03/06/2022
5	Infinite Solutions	ER Calculation sheet Version 2.0	26/12/2021
6	APEPDCL NTPC SECI	Commissioning Certificates for 1100 MW solar plants	-
7		Calibration test certificates for main and check meters	-

8	Southern Regional Power Committee Northern Regional Power Committee	Monthly Joint meter reading report for 1100 MW solar power plant.	2020 & 2021
9	SB Energy Private Limited.	Monthly invoices for 1100 MW solar power plant.	2020 & 2021
10	UPPTCL	PPA	-
11	Google Earth	GPS coordinates for Solar plant	-
12	Infinite Solutions	Site photographs of Solar plant and energy meters	2020 & 2021
13	SB Energy Private Limited.	Grievance Register	2020 & 2021
14	SB Energy Private Limited.	Power Purchase Agreement	
15	SBG Cleantech Project Co Five Private Limited	Commissioning certificate	25/11/2019 12/10/19 17/12/2019 17/12/2020
16	SBG Cleantech Project Co. Pvt Ltd	Commissioning certificate	27/02/2017 22/03/2017 28/03/2017
17	SB Energy One Private Limited	Commissioning certificate	21/09/2018 24/09/2018 24/09/2018
18	SB Energy Three Private Limited	Commissioning certificate	10/4/18 10/4/18 18/09/2018 18/09/2018
19	SB Energy Four Private Limited	Commissioning certificate	5/3/19 7/9/19
20	SB Energy Solar Private Limited	Commissioning certificate	20/12/2019 3/11/20
21	SB Energy Six Private Limited	Commissioning certificate	14/06/2021
22	SB Energy Private Limited.	VCD PD, version-2	25/02/2019

Table 4: List of reference documents

2.3 Interviews

The VVB has not conducted the on-site inspection for this current monitoring period due to obligations imposed by COVID 19. However, the VVB has ensured that reasonable level of assurance has been achieved as per Verra regulations on the relaxation of mandatory site visits by the VVB due to COVID 19. The VVB has conducted telephonic interviews and video calls to discuss with the client regarding the data and documents pertaining to the current verification period. The interviews and discussions were conducted successfully.

No .	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Venkatesw arl	Puchakay al	SBG Cleantech Project Co. Pvt Ltd	18/12/20 21	Plant technolo gy and monitorin g	Shailend ra Kewat
2	Shetty	Sai Prasad Shetty	SB Energy Solar Private Limited	18/12/20 21	Plant technolo gy and monitorin g	Shailend ra Kewat
3	Ahirwar	Bajrang	SB Energy Six Private Limited	18/12/20 21	Plant technolo gy and monitorin g	Shailend ra Kewat
4	Gedia	Alpesh	SBG Cleantech Project Co Five Private Limited	18/12/20 21	Plant technolo gy and monitorin g	Shailend ra Kewat
5	Saha	Sandip	SB Energy Seven Private Limited	18/12/20 21	Plant technolo gy and monitorin g	Shailend ra Kewat
6	Sharma	Nitya	Infinite solutions	18/12/20 21	Plant technolo gy and monitorin g	Shailend ra Kewat

Table 5: List of interviewees

2.4 Site Inspections

Please see 2.3

2.5 Resolution of Findings

CL from this verification

CL ID	01	Section no.	MR	Date: 20/12/2021
Description of CL				
Please submit the following documents :- 1. Commissioning certificates. 2. PPA				
Project participant response				Date: 26/12/2021
The following documents are submitting along with this submission to assessment team. 1. Commissioning certificates. 2. PPA				
Documentation provided by project participant				
1. Commissioning certificates. 2. PPA				
VVB assessment				Date: 29/12/2021
The PP has submitted the requested documents and VVB has cross verified the installed capacity and ownership status of the project with the documents #CL 01 Closed				

CAR ID	01	Section no.	3.3	Date: 20/12/2021
Description of CAR				
It is not clear whether the project deviations as described under section 3.2.2 of the MR are taken in the current monitoring period or previous monitoring period.				
Project participant response				Date: 26/12/2021
There is a project description deviation is applied during current monitoring period of the project activity & same has been reported in the section 3.2.2 of the monitoring report. PP would like to clarify that the information related to deviations of previous monitoring period have been also included under the section 3.2.2 of the monitoring report. Hence Revised MR Version 2.0				
Documentation provided by project participant				
VCS MR Version 2.0				
VVB assessment				Date: 29/12/2021
PP has revised the section 3.2.2 of the monitoring report & found satisfactory. CAR 01 # Closed				

CAR ID	02	Section no.	4.5	Date: 20/12/2021
Description of CAR				
Value of the parameter $EG_{PJ,y}$ reported in section 4.2 of the MR is not consistent with the ER sheet.				
Project participant response				Date: 26/12/2021
The Value of the Parameters $EG_{PJ,y}$ reported in section 4.2 of the MR is now made consistent with the ER Sheet. Hence Revised MR Version 2.0.				
Documentation provided by project participant				

Revised MR Version 2.0 ER Sheet Version 2.0	
VVB assessment	Date: 29/12/2021
PP has corrected the value of EGPJ, y in section 4.2 of the revised monitoring report & found ok. CAR#02 Closed	

2.6 Eligibility for Validation Activities

Not applicable

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project activity is registered under VCS with reference number 1805. The project proponent has provided undertaking that it will not claim any GHG credits in any GHG program other than that under VERRA during the current monitoring period.

3.2 Methodology Deviations

Not Applicable

3.3 Project Description Deviations

The following project deviation identified during the current monitoring period:

PP has updated in the MR that out of 8 SPVs, 3 SPVs are registered under GS mechanism & deregistered from the VCS project activity and details of the same has been provided under below table: -

S.No.	Owner of Project/SPD	Project Location	State	Project Capacity (MW)	Commissioning date	GS ID/current project status
1	SB Energy One Private Limited	Bhadla	Rajasthan	100 100 100	21/09/2018 24/09/2018 24/09/2018	GS7071/Registered
2	SB Energy Three Private Limited	Bhadla	Rajasthan	20 20 30 30	04/10/2018 04/10/2018 18/09/2018 18/09/2018	
3	SB Energy Four Private Limited	Bhadla	Rajasthan	200	03/05/2019 09/07/2019	GS7532/ Registered

Table 5: List of SPVs seeking registration in other voluntary mechanisms

Remaining 5 SPVs under project activity are not seeking registered under GS Mechanism & out of 5 SPVs, 4 SPVs totalling of 1100MW installed capacity are claiming carbon credits under VCS Mechanism during current monitoring period. Please refer below: -

S.No.	Owner of Project/SPV	Project Location	State	Project Capacity (MW)	Commissioning Date
1	SBG Cleantech Project Co. Pvt Ltd	Kurnool	Andhra Pradesh	182	27/02/2017
				68	22/03/2017
				100	28/03/2017
2	SB Energy Solar Private Limited	Ananthapur	Andhra Pradesh	250	20/12/2019, 11/03/2020
3	SB Energy Six Private Limited	Phalodi, Jaisalmer	Rajasthan	600	Phase 1 – 300 MW-14/06/2021 Phase 2 – Yet to be commissioned

4	SBG Cleantech Project Co Five Private Limited	Pavagadaa	Karnataka	200	17/12/2019
5	SB Energy Seven Private Limited	Kadappa	Andhra Pradesh	250	Yet to be commissioned

Table 6: List of SPVs seeking registration in Verra

Deviation during previous monitoring period:

There are 8 solar power developers (SPVs) involved in the project activity; however, during the previous monitoring period sub-projects implemented by 7 SPVs are migrated to another GHG programme (Gold standard), hence not considered for verification in the previous monitoring period.

During current verification, Out of 8 SPVs, 3 SPVs are registered under GS mechanism (GS ID – 7071 ,7532) & deregistered from the VCS project activity. Hence Remaining 5 SPVs under project activity are not seeking registered under GS Mechanism & out of 5 SPVs, 4 SPVs are claiming carbon credits under VCS Mechanism during current verification & 1 SPV yet to be commissioned.

The assessment team is able to confirm that the deviation identified during the current monitoring period is appropriately described and justified and the project remains in compliance with the VCS rules. Also, the deviation does not have an impact on the applicability of the methodology, additionality, or the appropriateness of the baseline scenario.

3.4 Grouped Project

Not Applicable

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activity involves the installation of Solar PV project. The total installed capacity of the project is 2,250 MW, which involves installation of Solar PV projects of different capacities located in different states of India.

The audit team has checked the commissioning certificates to confirm the location and the implementation of the project.

The Current project Status during current monitoring period: -

S.No.	Owner of Project/SPV	Project Location	State	Project Capacity (MW)	Commissioning Date	Current Status
1	SBG Cleantech Project Co. Pvt Ltd	Kurnool	Andhra Pradesh	182	27/02/2017	SPV registered under VCS Project activity. PP has considered electricity generation from this SPV during current verification.
				68	22/03/2017	
				100	28/03/2017	
2	SB Energy One Private Limited	Bhadla	Rajasthan	100	21/09/2018	
				100	24/09/2018	
				100	24/09/2018	
3	SB Energy Three Private Limited	Bhadla	Rajasthan	20	04/10/2018	SPVs deregistered from the project activity
				20	04/10/2018	
				30	18/09/2018	
				30	18/09/2018	

4	SB Energy Four Private Limited	Bhadla	Rajasthan	200	03/05/2019, 09/07/2019	
5	SB Energy Solar Private Limited	Anantha pur	Andhra Pradesh	250	20/12/2019, 11/03/2020	
6	SB Energy Six Private Limited	Phalodi, Jaisalmer	Rajasthan	600	Phase 1 (300 MW)– 14/06/2021 Phase 2(300 MW)-Yet to be commissioned	SPVs registered under VCS Project activity. PP has considered electricity generation from this SPV during current verification.
7	SBG Cleantech Project Co Five Private Limited	Pavagada	Karnataka	200	17/12/2019	
8	SB Energy Seven Private Limited	Kadappa	Andhra Pradesh	250	Yet to be commissioned	

The technical specification of the project activity equipment's has been checked through the photographs of all the equipment's installed at all four sites and are found to be consistent with

the mentioned under section 3.1 of MR. The current status of the project activity is verified through the screen shots of SCADA system, indicating the real-time generation data and hence it is confirmed that the project is fully functioning.

Monitoring parameters:

Means of verification	Referring to VCS v4.1 and p.360, p.361, p.363 and p.364 of CDM VVS PA, v3.0, the below tables provide a summary on the verification of each monitoring parameter listed in the registered monitoring plan. <table border="1"> <tr> <td>Data / Parameter:</td><td>EG_{PJ,y}</td></tr> <tr> <td>Data unit:</td><td>MWh</td></tr> <tr> <td>Description:</td><td>Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh)</td></tr> <tr> <td>Source of data used:</td><td>Monthly joint meter reading reports</td></tr> <tr> <td>Means of verification/Comments:</td><td> 1. For 350 MW Capacity – Kurnool – Andhra Pradesh The Net electricity supplied to the grid by the project activity will be calculated as a difference of electricity exported to the grid, electricity imported from the grid obtained from joint meter reading certificates/credit notes issued by state electricity board as per below equation: $EG_{\text{facility},y} = EG_{\text{Export}} - EG_{\text{Import}}$ Quantity of net electricity supplied to the grid will be cross checked from the invoices raised by the PP. 2. For 250 MW – Andhra Pradesh & 200 MW – Pavagadaa (Karnataka) The REA statement issued by SRPC(Southern Regional Power Committee) contains the information of the Scheduled Power, Actual Power, and the Deviation between actual & scheduled power. The scheduled power being feed into the grid can be cross-checked from the monthly Invoices raised by the PP. For ER calculations, the values of Actual power have been considered. 3. For 600 MW Capacity – Phalodi – Rajasthan The REA statement issued by NRPC (Northern Regional Power Committee) contains the information of Details of Inter-Regional Bilateral Exchanges (LUS) in which actual generation value </td></tr> </table>	Data / Parameter:	EG_{PJ,y}	Data unit:	MWh	Description:	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh)	Source of data used:	Monthly joint meter reading reports	Means of verification/Comments:	1. For 350 MW Capacity – Kurnool – Andhra Pradesh The Net electricity supplied to the grid by the project activity will be calculated as a difference of electricity exported to the grid, electricity imported from the grid obtained from joint meter reading certificates/credit notes issued by state electricity board as per below equation: $EG_{\text{facility},y} = EG_{\text{Export}} - EG_{\text{Import}}$ Quantity of net electricity supplied to the grid will be cross checked from the invoices raised by the PP. 2. For 250 MW – Andhra Pradesh & 200 MW – Pavagadaa (Karnataka) The REA statement issued by SRPC(Southern Regional Power Committee) contains the information of the Scheduled Power, Actual Power, and the Deviation between actual & scheduled power. The scheduled power being feed into the grid can be cross-checked from the monthly Invoices raised by the PP. For ER calculations, the values of Actual power have been considered. 3. For 600 MW Capacity – Phalodi – Rajasthan The REA statement issued by NRPC (Northern Regional Power Committee) contains the information of Details of Inter-Regional Bilateral Exchanges (LUS) in which actual generation value
Data / Parameter:	EG_{PJ,y}										
Data unit:	MWh										
Description:	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh)										
Source of data used:	Monthly joint meter reading reports										
Means of verification/Comments:	1. For 350 MW Capacity – Kurnool – Andhra Pradesh The Net electricity supplied to the grid by the project activity will be calculated as a difference of electricity exported to the grid, electricity imported from the grid obtained from joint meter reading certificates/credit notes issued by state electricity board as per below equation: $EG_{\text{facility},y} = EG_{\text{Export}} - EG_{\text{Import}}$ Quantity of net electricity supplied to the grid will be cross checked from the invoices raised by the PP. 2. For 250 MW – Andhra Pradesh & 200 MW – Pavagadaa (Karnataka) The REA statement issued by SRPC(Southern Regional Power Committee) contains the information of the Scheduled Power, Actual Power, and the Deviation between actual & scheduled power. The scheduled power being feed into the grid can be cross-checked from the monthly Invoices raised by the PP. For ER calculations, the values of Actual power have been considered. 3. For 600 MW Capacity – Phalodi – Rajasthan The REA statement issued by NRPC (Northern Regional Power Committee) contains the information of Details of Inter-Regional Bilateral Exchanges (LUS) in which actual generation value										

		can be cross-checked from the monthly Invoices raised by the PP.
	Cross-check	Electricity Sales invoices submitted (as per PPA)
Compliance with the calibration frequency requirements for measuring instruments As per the registered monitoring plan, the meters are to be calibrated in every five years and same has been considered for this MP and confirmed by cross-checking the calibration records. The details of the calibration of meters are given in the table below.		
Conclusion	The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD. All parameters were monitored and determined as per the registered monitoring plan. Referring to p.360, p.361, p.363 and p.364 of CDM VVS PA, v3.0, VVB confirms through video call and telephonic interviews and from the document review, the actual monitoring system complies with the registered monitoring plan. The substantiation of this conformity on information flow for these parameters including the values in the monitoring reports is reported in the above section. During the verification, all relevant monitoring parameters of the registered monitoring plan have been verified with regard to the appropriateness of the verification method, the correctness of the values applied for ER calculation, the accuracy and applied QA/QC measures. After appropriate corrections, carried out by the project participant, it is confirmed that all monitoring parameters have been measured / determined without material misstatements and are in line with all applicable standards and relevant requirements. All parameters required to be monitored are recorded at the intervals required by the registered monitoring plan and the applied methodology. On the basis of review of source and nature of available evidences and records, the verification team confirms the quality of evidence for emission reduction provided is sufficient as per CDM VVS PA, v3.0.	

Table – 7 Calibration Details:-

Particular	Meter Serial No.	Accuracy Class	Calibration Date	Validity	Recent Calibration Date	Validity
SBG Cleantech Project Co Pvt Ltd (350 MW)						
Pooling Station 203						
Main Meter	16196315	0.2 s	20/02/2017	19/02/2022	17/10/2019	16/10/2024
Check Meter	16196317	0.2 s	20/02/2017	19/02/2022	17/10/2019	16/10/2024
Pooling Station 204						
Main Meter	16196320	0.2 s	20/02/2017	19/02/2022	17/10/2019	16/10/2024
Check Meter	16196328	0.2 s	20/02/2017	19/02/2022	17/10/2019	16/10/2024

Pooling Station 206						
Main Meter	16196408	0.2 s	20/02/2017	19/02/2022	17/10/2019	16/10/2024
Check Meter	16196417	0.2 s	20/02/2017	19/02/2022	17/10/2019	16/10/2024

250 MW – Anantapur – Andhra Pradesh

EHT/DISCOM Grid Connected substation Details: 220/400 KV PGCIL S.S., N.P. Kunta.

Feeder details	Meter	Make	Accuracy Class	Serial No	Calibration date	Calibration due date
GSS (Feeder-I)	Main Meter	L&T	0.2 s	NP-9769-A	20/12/2019	19/12/2024
GSS (Feeder-I)	Check Meter	L&T	0.2 s	NP-9768-A	20/12/2019	19/12/2024
GSS (Feeder-II)	Main Meter	L&T	0.2 s	NP-9726-A	20/12/2019	19/12/2024
GSS (Feeder-II)	Check Meter	L&T	0.2 s	NP-9725-A	20/12/2019	19/12/2024

200 MW – Pavagadaa – Karnataka

EHT/DISCOM Grid Connected substation Details: KSPDCL Substation 5 - 66/220 KV which is further connected to PGCIL GSS.

ABT meters	Capacity	Plant End	Meter Make/Class	Meter Serial No	Calibration Date	Calibration Date Due Date
1) Block 23	25 MW	Main Meter	L&T & 0.2 s	LT-0769-A	20/11/2019	19/11/2024
		Check Meter	L&T & 0.2 s	LT-0764-A	20/11/2019	19/11/2024
	25 MW	Main Meter	L&T & 0.2 s	LT-0866-A	20/11/2019	19/11/2024
		Check Meter	L&T & 0.2 s	LT-0863-A	20/11/2019	19/11/2024
2) Block 24	25 MW	Main Meter	L&T & 0.2 s	LT -0874-A	20/11/2019	19/11/2024
		Check Meter	L&T & 0.2 s	LT-0871-A	20/11/2019	19/11/2024
	25 MW	Main Meter	L&T & 0.2 s	LT-0881-A	20/11/2019	19/11/2024
		Check Meter	L&T & 0.2 s	LT-0878-A	20/11/2019	19/11/2024
3) Block 25	25 MW	Main Meter	L&T & 0.2 s	LT-0870-A	20/11/2019	19/11/2024
		Check Meter	L&T & 0.2 s	LT-0880-A	20/11/2019	19/11/2024
	25 MW	Main Meter	L&T & 0.2 s	LT-0876-A	20/11/2019	19/11/2024

		Check Meter	L&T & 0.2 s	LT-0877-A	20/11/2019	19/11/2024
4) Block 26	25 MW	Main Meter	L&T & 0.2 s	LT-0872-A	20/11/2019	19/11/2024
		Check Meter	L&T & 0.2 s	LT-0778-A	20/11/2019	19/11/2024
	25 MW	Main Meter	L&T & 0.2 s	LT-0882-A	20/11/2019	19/11/2024
		Check Meter	L&T & 0.2 s	LT-0888-A	20/11/2019	19/11/2024

600 MW – Phalodi - Rajasthan

220/400/765 KV BHADLA SUBSTATION

Description	Main Meter- GSS	Check Meter - GSS
Meter Sr No	NS1125A	1127-A
Meter Make	Secure	secure
Accuracy	0.2 s	0.2 s
Calibration date	07/06/2021	07/06/2021
Calibration due date	06/06/2026	06/06/2026

The assessment team has verified the final VCS MR and confirmed that the procedure for data uncertainty, emergency preparedness, roles and responsibility, operational and management structure are mentioned in the MR. The monitoring plan completely describes all measures to be implemented for monitoring all parameters required. The monitoring plan described the positioning of the equipment. Calibration frequency for Energy meters is once in 5 years. Also, CEA Notification/15/ No. 502/70/CEA/DP&D dated 17/03/2006 which is considered as national standard mentions that “All interface meters shall be tested at least once in five years.” Hence calibration frequency once in 5 years considered for the project activity is found to be appropriate.

The information relating to the project implementation, provided in the Monitoring Report is consistent & correct .Total emission reductions achieved under this monitoring period 02/02/2020 to 30/11/2021 (including both days) is 3,142,589 tCO₂e.

Emissions trading programs and other binding limits

Assessment team confirms that the Net GHG emission reductions or removals generated by the project will not be used for compliance with an emissions trading program or to meet binding limits on GHG emissions in any Emission Trading program or other binding limits. Audit team checked the REC Mechanism database of India and found that the project activity is not accredited / registered under REC mechanism. Further, Declaration in effect of the same has been submitted by project proponent to audit team and found to be correct.

The project has not been registered under any other GHG programs. Also, the Project is not rejected by other GHG programs. A declaration for the same is checked and found correct by the assessment team. Also, assessment team checked the following registries to confirm the same. The details of the registries checked are as follows:

1. <https://www.recregistryindia.nic.in/>
2. <http://cdm.unfccc.int/>
3. <http://www.goldstandard.org/>
4. www.v-c-s.org

The Project has no intend to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under the VCS Program.

Thus, it is concluded that the project activity not involved on other Emissions trading programs and other binding limits.

Additional Information Relevant to the Project

Eligibility Criteria for grouped projects

This is not a grouped project activity. Thus, this section is not applicable for this project.

Leakage Management for AFOLU projects

Not applicable to the project activity.

Commercially Sensitive Information

No commercially sensitive information has been excluded from the public version of the project description. The details are presented transparently to the assessment team for analysis which leads to positive conclusion for this verification.

Sustainable Development

Contribution to sustainable development: Ministry of Environment and Forests, has stipulated economic, social, environment and technological well-being as the four indicators of sustainable development. Assessment team found that the project contributes to sustainable development using the following ways.

Social well-being: The project would help in generating employment opportunities during the construction and operation phases. The project activity will lead to development in infrastructure in the region like development of roads and may promote business with improved power generation.

Economic well-being: The project is a clean technology investment in the region, which would not have been taken place in the absence of the VCS benefits the project activity will also help to reduce the demand supply gap in the state.

Technological well-being: The successful operation of project activity would lead to promotion of solar based power generation and would encourage other entrepreneurs to participate in similar projects.

Environmental well-being: Solar being a renewable source of energy, it reduces the dependence on fossil fuels and conserves natural resources which are on the verge of depletion. Due to its zero emission the Project activity also helps in avoiding significant amount of GHG emissions and specific pollutants like SO_x, NO_x, and SPM associated with the conventional thermal power generation facilities. Project undergone continuous operation and only scheduled maintenance as per the manufacturer specification is considered. No unforeseen incident observed for the present monitoring period.

Conclusion:

In view of the assessment of MR and supporting documents as listed in Appendix 1 of this report, the validation team is able to confirm that the description contained in the MR of the project activity provides the reader with a clear understanding of the precise nature of the project activity and the technical aspects of its implementation. Consequently, assessment team confirms that the project description of the project contained in the MR to be complete and accurate. The MR complies with the relevant forms and guidance for completing the VCS MR.

4.2 Safeguards

4.2.1 No Net Harm

The project do not have any negative environmental impacts.

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. As confirmed by PP during interviews, for on-going stakeholders communication, PP has maintained feedback/complaint register at the site office. Local stakeholders can anytime lodge their grievances if any in the register over the operational lifetime of the project.

During current monitoring period no grievance was received. Thus, assessment team is of the opinion that the ongoing stakeholder mechanism is adequate and appropriate.

4.3 AFOLU-Specific Safeguards

Not applicable.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	The assessment of data and the calculation of baseline emission reduction in the MR and the ER excel sheet have been verified as per the following set of supporting documents: 1. Export, Import, Net Generation data 2. Joint meter readings/REA – Regional Energy Account (SRPC, NRPC) 3. VER spreadsheets 4. Sales Invoices (as per PPA)
Conclusion	Calculations applied formulae and method for calculation of baseline emission are in accordance with the registered monitoring plan and are in line with the requirements of the applied methodology.

Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan
Conclusion	Project emissions are zero as per the requirement of the methodology and registered CDM PDD.

Calculation of leakage GHG emissions

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the project activity. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the registered monitoring plan
Conclusion	Leakage emissions are not applicable according to the applied methodology and registered CDM PDD

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

Means of verification	No lack of evidence and missing data were detected during this monitoring period. All values as per the monitoring plan were crosschecked by the verification team against basic monitored data and the calculations were found to be correct. The verification team confirms that all assumptions, emission factors and default values have been correctly justified. All the emission factors, application of maximum permissible errors and default values are explicitly mentioned in the monitoring report. Hence the VVB confirms that the methods and formulae used to obtain the emissions are appropriate. No reporting risks have been identified for the data reported. Troubleshooting procedure, maintenance, and calibration of monitoring equipment, monitoring measurements and reporting, record handling and maintenance, reviewing monitored data are available at the plant. All the monitored data are archived partially in electronic and paper form. The data will be kept for the whole crediting period and 2 years after the last crediting period thereby meeting the requirement of the monitoring plan.
Conclusion	The formulae and the methods referred in the MR and the emission reduction calculation spread sheet comply with the methods described in the registered PDD. No lack of evidence and missing data were detected during this monitoring period. All values as per the monitoring plan were crosschecked by the verification team against basic monitored data and the GHG emission calculation is found correct. TUV SUD confirms that all assumptions, emission factors and default values have been correctly justified. All the emission factors and default values are explicitly mentioned in the monitoring report. Calculations applied formulae and method for calculation of GHG emission are in accordance with the registered monitoring plan and are in line with the requirements of VCS, the applied methodology and p. 372, p.373 of CDM VVS PA ver 3.0.

4.6 Non-Permanence Risk Analysis

Not applicable.

5 VERIFICATION CONCLUSION

The VVB confirms that

- The Development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan.
- The Project is operated as planned and described in the project description and approved by the Verra;
- 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 Monitoring plan in Monitoring Report is as per the PD and monitoring plan approved by the VCS.
- The Approved monitoring plan in the approved PD is as per the applied methodology.
- There is an audit trail that contains the evidence and records that validate the stated figures.

Based on the information we have seen and evaluated, we confirm that the project activity achieved the verified amount of reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the project activity

Verification period: From 02/02/2020 to 30/11/2021.

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
2020(02/02/2020 to 31/12/2020)	1,471,722	0	0	1,471,722
2021(01/01/2021 to 30/11/2021)	1,670,865	0	0	1,670,865

Total	3,142,587	0	0	3,142,587
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